

SENATE No. 2225

The Commonwealth of Massachusetts

PRESENTED BY:

Marc R. Pacheco

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 to prevent the worst effects of our climate emergency by providing policy pathways to achieve net zero emissions.

PETITION OF:

NAME:	DISTRICT/ADDRESS:	
<i>Marc R. Pacheco</i>	<i>First Plymouth and Bristol</i>	
<i>Michael D. Brady</i>	<i>Second Plymouth and Bristol</i>	<i>4/1/2021</i>

SENATE No. 2225

By Mr. Pacheco, a petition (accompanied by bill, Senate, No. 2225) of Marc R. Pacheco and Michael D. Brady for legislation to prevent the worst effects of our climate emergency by providing policy pathways to achieve net zero emissions. Telecommunications, Utilities and Energy.

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

The Commonwealth of Massachusetts

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

An Act to prevent the worst effects of our climate emergency by providing policy pathways to achieve net zero emissions.

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

8 SECTION 2. Said section 1 of said chapter 21N, as so appearing, is hereby further
9 amended by inserting after the definition of “Greenhouse gas emissions source” the following

10 definition:- “Greenhouse gas-emitting priority”, matter that emits or is capable of emitting a
11 greenhouse gas when burned including, but not limited to, natural gas, petroleum, coal and any
12 solid, liquid or gaseous fuel derived therefrom or any other such matter as identified by the
13 department.

14 SECTION 3. Said section 1 of said chapter 21N, as so appearing, is hereby further
15 amended by striking out the definition of “Indirect emissions” and inserting in place thereof the
16 following definition:- “Indirect emissions”, emissions associated with the consumption of any
17 greenhouse gas emitting priority or purchased electricity, fuel, steam and heating or cooling by a
18 person, an entity or a facility.

19 SECTION 4. Section 1 of chapter 21N of the General Laws, as appearing in the 2018
20 Official Edition, is hereby amended by striking out the definition of “Market-based compliance
21 mechanism” and inserting in place thereof the following 2 definitions:-

22 “Market-based compliance mechanism”, a pricing or compliance mechanism or system,
23 imposed on sources or categories of sources of greenhouse gas-emitting substances or on the
24 distribution or sale of greenhouse gas-emitting substances, designed to reduce emissions as
25 required by this chapter, including, but not limited to, any mechanism or system of: (i) market
26 based declining annual aggregate emissions limitations for sources or categories of sources that
27 emit greenhouse gases; (ii) greenhouse gas emissions exchanges, banking, credits and other
28 transactions governed by rules and protocols established by the secretary, a regional program or
29 other interested states that results in the same greenhouse gas emissions reductions, over the
30 same time period, as direct compliance with a greenhouse gas emissions limit or emissions

31 reduction measure adopted pursuant to this chapter; or (iii) charges or exactions imposed to
32 reduce statewide greenhouse gas emissions in whole or in part.

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

39 SECTION 5. Subsection (a) of section 2 of said chapter 21N, as so appearing, is hereby
40 amended by striking out the first sentence and inserting in place thereof the following sentence:-
41 The department shall monitor and regulate emissions of greenhouse gases with the goal of
42 reducing emissions in order to achieve the greenhouse gas emissions limits adopted pursuant to
43 this chapter.

44 SECTION 6. Section 3 of said chapter 21N, as so appearing, is hereby amended by
45 striking out subsection (b) and inserting in place thereof the following subsection:- (b) To
46 maximize the ability of the commonwealth to realize the 2050 emissions limit, the secretary
47 shall, in consultation with the department and the department of energy resources,

48 adopt the following statewide greenhouse gas emissions limits: (i) a 2020 statewide
49 greenhouse gas emissions limit; (ii) a 2025 statewide greenhouse gas emissions limit; (iii) a 2030
50 statewide greenhouse gas emissions limit; (iv) a 2035 statewide greenhouse gas emissions limit;
51 (v) a 2040 statewide greenhouse gas emissions limit; (vi) a 2045 statewide greenhouse gas
52 emissions limit; and (vii) a 2050 statewide greenhouse gas emissions limit of not more than net-

53 zero emissions. Each limit shall be accompanied by a comprehensive, clear and specific plan to
54 realize the adopted limit.

55 SECTION 7. Said chapter 21N is hereby amended by inserting after section 3 the
56 following 2 sections:-

57 Section 3A. (a) The secretary shall, in consultation with the secretary of housing and
58 economic development and the secretary of transportation, adopt sector-based statewide
59 greenhouse gas emissions sublimits as components of each statewide greenhouse gas emissions
60 limit adopted pursuant to subsection (b) of section 3. Each source or category of sources of
61 emissions shall be subject to statewide emissions sublimits, including, but not limited to, electric
62 power, transportation, commercial and industrial heating and cooling, residential heating and
63 cooling, industrial processes, solid waste, agriculture and natural gas distribution and service.

64 (b) Sector-based statewide greenhouse gas emissions sublimits for a given year shall not,
65 in the aggregate, exceed the statewide greenhouse gas emissions limit for the year and shall be
66 designed to allow the commonwealth to realize the 2050 statewide greenhouse gas emissions
67 limit.

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

72 SECTION 8. Subsection (a) of section 4 of said chapter 21N, as appearing in the 2018
73 Official Edition, is hereby amended by inserting after the first sentence the following 2

74 sentences:- The 2030 statewide greenhouse gas emissions limit adopted pursuant to clause (iii) of
75 said subsection (b) of said section 3 shall be not less than 50 per cent below the 1990 emissions
76 level. The 2040 statewide greenhouse gas emissions limit adopted pursuant to clause (v) of said
77 subsection (b) of said section 3 shall be not less than 75 per cent below the 1990 emissions level.

78 SECTION 9. Said subsection (a) of said section 4 of said chapter 21N, as so appearing, is
79 hereby further amended by striking out the last sentence and inserting in place thereof the
80 following sentence:- The 2020, 2025, 2030, 2035, 2040, 2045 and 2050 statewide greenhouse
81 gas emissions limits and the accompanying plans for realizing the limits shall comply with the
82 requirements of this section and section 5.

83 SECTION 10. Subsection (b) of said section 4 of said chapter 21N, as so appearing, is
84 hereby amended by striking out, in line 17, the words "limit established in subsection (a)" and
85 inserting in place thereof the following words:- limits adopted pursuant to subsection (b) of
86 section 3.

87 SECTION 11. Subsection (g) of said section 4 of said chapter 21N, as so appearing, is
88 hereby amended by striking out, in line 42, the words "emission limit and implementing plan"
89 and inserting in place thereof the following words:- 2025, 2030, 2035, 2040, 2045 and 2050
90 statewide greenhouse gas emissions limits and the accompanying plans for realizing the limits.

91 SECTION 12. Said section 4 of said chapter 21N, as so appearing, is hereby further
92 amended by striking out subsection (h) and inserting in place thereof the following subsection:-

93 (h) Not more than 18 months after the last day of 2020, 2025, 2030, 2035, 2040, 2045,
94 2050 and any other calendar year for which a statewide greenhouse gas emissions limit is
95 adopted pursuant to statute or regulation, the secretary shall file a formal certificate of

96 compliance with the climate policy commission established under chapter 21Q, the clerks of the
97 house of representatives and the senate, the house and senate committees on ways and means, the
98 joint committee on telecommunications, utilities and energy and the joint committee on the
99 environment, natural resources and agriculture. The certificate shall certify, drawing upon the
100 best available data and measurements, the commonwealth's compliance with, or failure to
101 comply with, the statewide greenhouse gas emissions limit. The certificate shall include a
102 quantification of the extent to which emissions exceed or do not exceed the limit and an analysis
103 of the lessons learned from the success or failure to comply with the limit. If emissions exceeded
104 the limit, the certificate shall include comprehensive, clear and specific remedial steps to offset
105 the excess emissions and ensure compliance with the next upcoming limit adopted pursuant to
106 statute or regulation.

107 SECTION 13. Said chapter 21N is hereby further amended by striking out sections 5 to 7,
108 inclusive, as so appearing, and inserting in place thereof the following 3 sections:-

109 Section 5. (a) The secretary shall monitor the implementation of plans and regulations
110 relative to climate change. To the extent practicable, the plans required by subsection (b) of
111 section 3 for 2025, 2030, 2035, 2040 and 2045 shall be consistent with each other, cumulative in
112 effect and constructed to realize the 2050 statewide greenhouse gas emissions limit imposed by
113 said subsection (b) of said section 3. Each plan, including the 2050 plan, shall: (i) address each
114 sector subject to a statewide greenhouse gas emissions sublimit imposed by section 3A of this
115 chapter; (ii) indicate for each sector how, to what extent and when the commonwealth will act to
116 reduce its emissions in order to realize the 2050 statewide greenhouse gas emissions limit; (iii)
117 quantify the emissions reductions to be realized due to the electric and gas energy efficiency
118 programs established under sections 19 and 21 of chapter 25; (iv) set numerical benchmarks and

119 track adoption within the commonwealth of emissions reduction products, solutions and
120 improvements used to achieve the statewide greenhouse gas emissions limits and sublimits,
121 including, but not limited to, electric vehicles, electric vehicle charging stations, solar
122 photovoltaic and solar thermal technologies, carbon sequestration from natural and working
123 lands, energy storage capacity, air-source and ground-source heat pumps and anaerobic
124 digestion; (v) consider whether activities undertaken to comply with statewide greenhouse gas
125 emissions limits and sublimits disproportionately impact low-income and moderate-income
126 communities and recommend actions that provide benefits or cost savings to such communities
127 or otherwise eliminate any such impacts; (vi) consider overall societal benefits, including
128 reductions of other air pollutants, conservation, engagement and management of natural and
129 working lands, diversification of energy sources and other benefits to the economy, environment
130 and public health; (vii) consider whether activities undertaken to comply with statewide
131 greenhouse gas emissions limits and sublimits minimize costs and administrative burdens and
132 maximize total benefits to the commonwealth; (viii) consider whether activities undertaken to
133 comply with statewide greenhouse gas emissions limits and sublimits minimize leakage; (ix)
134 ensure that greenhouse gas emissions reductions are real, permanent, quantifiable, verifiable and
135 enforceable; (x) contain a statewide baseline quantification of the carbon sequestered in natural
136 and working lands, accompanied by goals to increase and enhance the sequestration, and
137 recommendations including, but not limited to, the conservation, enhancement and management
138 of natural and working lands; and (xi) make recommendations for future policy action.

139 Section 6. The secretary shall promulgate all regulations necessary to achieve the limits
140 imposed by subsection (b) of section 3 and sublimits imposed by section 3A. The regulations
141 shall be designed to ensure that the commonwealth achieves the required emissions reductions

142 equitably and in a manner that mitigates the effects of increased energy and transportation costs
143 on low-income and moderate-income households, improves their economic condition, where
144 feasible, and creates additional employment and economic development in the commonwealth.

145 Section 7. (a) The secretary shall promulgate regulations establishing market-based
146 compliance mechanisms for: (i) the transportation sector; provided, however, that the regulations
147 shall, at a minimum, be designed to reduce emissions from passenger vehicles and light duty
148 trucks; (ii) the commercial, industrial and institutional sectors, including, but not limited to,
149 buildings and industrial, manufacturing and other business processes; and (iii) the residential
150 building sector.

151 (b) Market-based compliance mechanisms established pursuant to this section shall be
152 designed to: (i) maximize the ability of the commonwealth to achieve the statewide greenhouse
153 gas emissions limits established pursuant to this chapter; (ii) ensure that the commonwealth
154 achieves the required emissions reductions equitably and in a manner that protects and, where
155 feasible, improves the condition of low-income and moderate-income persons; (iii) prevent
156 increases in the emissions of toxic air contaminants and criteria air pollutants, including, but not
157 limited to, emissions of nitrous oxide, sulfur dioxide and mercury; (iv) identify manufacturing
158 sectors, economic sectors, economic subsectors or individual employers at risk of adverse
159 impacts due to such mechanisms and mitigate the impacts; (v) address the distinguishing
160 characteristics and vulnerabilities of rural, suburban and urban households; and (vi) maximize
161 additional environmental and economic benefits for the commonwealth. (c) The executive office
162 and the department may work with the participating regional greenhouse gas initiative states,
163 other interested states and Canadian provinces to develop a plan to expand market-based
164 compliance mechanisms such as the regional greenhouse gas initiative to other sources and

165 sectors necessary or desirable to facilitate the achievement of the statewide greenhouse gas
166 emissions limits. (d) The secretary may adopt regulations governing the use of market-based
167 compliance mechanisms by regulated entities subject to the statewide greenhouse gas emissions
168 limits and mandatory emissions reporting requirements to achieve compliance with such limits.
169 (e) The executive office shall monitor compliance with this chapter and enforce any rule,
170 regulation, order, emissions limit, emissions reduction measure or market-based compliance
171 mechanism adopted by the secretary or department under this chapter. The department may
172 impose a civil administrative penalty pursuant to section 16 of chapter 21A for a violation of any
173 rule, regulation, order, emissions limit, emissions reduction measure or other measure adopted by
174 the secretary pursuant to this chapter.

175 SECTION 14. Section 9 of chapter 23J of the General Laws, as appearing in the 2018
176 Official Edition, is hereby amended by striking out, in line 33, the words “and (iii) by” and
177 inserting in place thereof the following words:- (iii) funding research, design and evaluation of
178 pilots to promote energy innovation; and (iv).

179 SECTION 15. Said section 9 of said chapter 23J, as so appearing, is hereby further
180 amended by inserting after the word “facilities”, in line 45, the following words:- and with the
181 distribution and consumption of fossil fuels, including, but not limited to, oil and gases that
182 contain methane and other hydrocarbon fuels.

183 SECTION 16. Chapter 23J of the General Laws is hereby amended by adding the
184 following section:- Section 13. (a) There shall be within the center a clean energy equity
185 workforce and market development program to provide workforce training, educational and
186 professional development, job placement, startup opportunities and grants promoting

187 participation in the commonwealth's energy efficiency, clean energy, and clean heating and
188 cooling industries to: (i) certified minority-owned and women-owned small business enterprises;
189 (ii) individuals residing within an environmental justice community; and (iii) current and former
190 workers from the fossil fuel industry. The program shall: (i) identify the employment potential of
191 the energy efficiency and clean energy industries and the skills and training needed for workers
192 in those fields; (ii) maximize energy efficiency and clean energy employment opportunities for
193 certified minority owned and women-owned small business enterprises and individuals residing
194 within an environmental justice community; (iii) identify barriers to deployment of clean energy
195 and energy storage resources to certified minority-owned and women-owned small business
196 enterprises; (iv) recommend near-term deployment targets consistent with the state's clean
197 energy and climate change requirements and awarding incentives to deploy said resources; and
198 (v) make recommendations to the general court for policies to promote employment growth and
199 access to jobs in the clean energy industry.

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

205 SECTION 17. Section 19 of chapter 25 of the General Laws, as appearing in the 2018
206 Official Edition, is hereby amended by adding the following subsection:- (d) Notwithstanding
207 any provision of this section to the contrary, the department shall annually transfer, on or before
208 December 31, no less than \$12,000,000 in funds collected pursuant to this section to the
209 Massachusetts clean energy center for the clean energy equity workforce and market

210 development program pursuant to subsection (b) of section 13 of chapter 23J; provided,
211 however, such transfer shall not reduce low-income program funds allocated pursuant to
212 subsection (c).

213 SECTION 18. Section 1 of chapter 23M is hereby amended by striking out the words “or
214 retrofitting”, in lines 16 and 17, and inserting in place thereof the following:- , retrofitting or
215 qualifying new construction

216 SECTION 19. Chapter 25 of the General Laws is hereby amended by inserting after
217 section 1 the following section:- Section 1A. In discharging its responsibilities under this chapter
218 and chapter 164, the department shall, with respect to itself and the entities it regulates, prioritize
219 safety, security, reliability of service, affordability, equity and reductions in greenhouse gas
220 emissions to meet statewide greenhouse gas emission limits established pursuant to section 3 of
221 chapter 21N.

222 SECTION 20. Section 19 of said chapter 25, as appearing in the 2018 Official Edition, is
223 hereby amended by inserting after the word “practicable”, in line 29, the following words:- ;
224 provided, however, that when determining cost-effectiveness, the calculation of program benefits
225 shall include calculations of the social value of greenhouse gas emissions reductions.

226 SECTION 21. Said section 19 of said chapter 25, as so appearing, is hereby further
227 amended by inserting after the word “practicable”, in line 41, the following words:- ; provided,
228 however, that when determining cost-effectiveness, the calculation of program benefits shall
229 include calculations of the social value of greenhouse gas emissions reductions.

230 SECTION 22. Said section 19 of said chapter 25, as so appearing, is hereby further
231 amended by inserting after the word “program”, in line 58, the following words:- ; provided,

232 however, that when determining cost-effectiveness, the calculation of benefits shall include
233 calculations of the social value of greenhouse gas emissions reductions.

234 SECTION 23. Section 21 of said chapter 25, as so appearing, is hereby amended by
235 inserting after the word “supply”, in line 5, the following words:- ; provided, however, that when
236 determining cost-effectiveness, the calculation of benefits shall include calculations of the social
237 value of greenhouse gas emissions reductions.

238 SECTION 24. Said section 21 of said chapter 25, as so appearing, is hereby further
239 amended by inserting after the figure “22”, in line 17, the following words:- ; provided, however,
240 that when determining cost-effectiveness, the calculation of benefits shall include calculations of
241 the social value of greenhouse gas emissions reductions.

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

246 SECTION 26. Said section 21 of said chapter 25, as so appearing, is hereby further
247 amended by inserting after the word “supply”, in line 25, the following words:- ; provided,
248 however, that when determining cost-effectiveness, the calculation of benefits shall include
249 calculations of the social value of greenhouse gas emissions reductions.

250 SECTION 27. Said section 21 of said chapter 25, as so appearing, is hereby further
251 amended by striking out, in line 69, the words “and (ix)”, and inserting in place thereof the
252 following words:- (ix) an estimate of the social value of greenhouse gas emissions reductions
253 that will result from the plan, including a numerical value of the plan’s contribution to meeting

254 each statewide greenhouse gas emissions limit and sublimit set by statute or regulation, together
255 with provisions for giving each value prominent display in communications and plan documents
256 and (x).

257 SECTION 28. Said section 21 of said chapter 25, as so appearing, is hereby further
258 amended by striking out, in line 73, the word “reducing”, the second time it appears, and
259 inserting in place thereof the following words:- greenhouse gas emissions or.

260 SECTION 29. Said section 21 of said chapter 25, as so appearing, is hereby further
261 amended by inserting after the word “program”, in line 81, the first time it appears, the following
262 words:- ; provided, however, that when determining cost-effectiveness, the calculation of
263 program benefits shall include calculations of the social value of greenhouse gas emissions
264 reductions.

265 SECTION 30. Said section 21 of said chapter 25, as so appearing, is hereby further
266 amended by inserting after the word “accordingly”, in line 113, the following words:- ; provided,
267 however, that when determining cost-effectiveness, the calculation of program benefits shall
268 include calculations of the social value of greenhouse gas emissions reductions.

269 SECTION 31. Subsection (d) of said section 21 of said chapter 25, as so appearing, is
270 hereby amended by adding the following 2 paragraphs:- (4) The plans shall be constructed to
271 meet or exceed the goal set by the secretary pursuant to section 3B of chapter 21N.

272 (5) Not later than 15 months after the conclusion of the final year of each plan, the
273 department shall issue a formal certificate of compliance, drawing upon the most accurate and
274 most complete data and measurements available, that certifies and quantifies the degree to which

275 the activities undertaken pursuant to each plan contributed to meeting greenhouse gas emission
276 limits imposed by statute or regulation.

277 SECTION 32. Section 22 of said chapter 25, as so appearing, is hereby amended by
278 inserting after the word “date”, in line 63, the following words:- , a quantification of the degree
279 to which the activities undertaken pursuant to each plan contribute to meeting any and all
280 greenhouse gas emission limits imposed by statute or regulation.

281 SECTION 33. Said section 22 of said chapter 25, as so appearing, is hereby further
282 amended by inserting after the word “year”, in line 69, the following words:- and a quantification
283 of the degree to which the activities undertaken pursuant to each plan contribute to meeting any
284 and all greenhouse gas emission limits imposed by statute or regulation.

285 SECTION 34. Section 21 of said chapter 25, as so appearing is hereby amended by
286 striking out, in lines 56 to 58, inclusive, the words “and (J) programs that result in customers
287 switching to renewable energy sources or other clean energy technologies;” and inserting in
288 place thereof the following words:- (J) programs that result in customers switching to renewable
289 energy sources or other clean energy technologies; and (K) programs administered by the low
290 income weatherization and fuel assistance program network that result in whole home retrofits,
291 including but not limited to weatherization and electrification for low-income and fixed-income
292 households residing in (1) affordable housing units under the jurisdiction of the department of
293 housing and community development or (2) affordable housing units the department oversees
294 funding for, which result in lower energy use or utilization in renewable energy;

295 SECTION 35. Said section 21 of said chapter 25, as so appearing, is hereby further
296 amended by adding the following 3 subsections:- (f) The department of housing and community

297 development shall conduct an audit of the (1) affordable housing units under the jurisdiction of
298 the department and (2) the affordable housing units the department oversees funding for in order
299 to determine the need and outreach for participation in programs created pursuant to clause (K)
300 of paragraph (2) of subsection (b) and make recommendations to energy efficiency advisory
301 council on how to improve program access and increase program deployment to individuals
302 residing in affordable housing units. (g) There shall be a low-income whole home retrofit task
303 force to develop recommendations for programs developed pursuant to clause (K) of paragraph
304 (2) of subsection (b). The taskforce shall consist of 12 members as follows: the director of
305 housing and community development, or a designee, who shall serve as chair; the commissioner
306 of the department of energy resources, or a designee; and 10 members appointed by the
307 governor, 1 of whom shall be a representative from the Low-Income Energy Affordability
308 Network, 1 of whom shall a representative from the energy efficiency advisory council
309 established in section 22, 1 of whom shall be from the Income-Eligible Best Practices Committee
310 of the energy efficiency advisory council, 1 of whom shall be a representative from the
311 Massachusetts Housing Finance Agency, 1 of whom shall be from the Greater Boston Labor
312 Council; 1 of whom shall be a representative from a non-profit with expertise in community
313 organizing, affordable housing and labor issues, 1 of whom shall be from an organization with
314 expertise in housing displacement prevention and tenant rights, 1 of whom shall be an
315 organization with expertise in enhancing the urban environment and public health, 1 of whom
316 shall be from an organization with expertise in enhancing the rural environment and public
317 health and 1 of whom shall be an organization with expertise in environmental justice and
318 transit-oriented development. The task force shall submit recommendations to the energy
319 efficiency advisory council to review every 3 years as part the council's review of energy

320 efficiency investment plans under this section. (h) Funds may be expended to cover up to the full
321 cost of projects in clause (K) of paragraph (2) of subsection (b) that are located within
322 environmental justice communities; provided, that the expenditure of funds for projects in said
323 clause (K) of said paragraph (2) of said subsection (b) shall be in addition to and shall not reduce
324 low-income program funds allocated in subsection (c) of section 19; and provided further that the
325 annual household income of such households is not more than 80 per cent of statewide median
326 income, as determined by the low-income weatherization and fuel assistance program network.

327 SECTION 36. Section 6 of chapter 25A of the General Laws, as so appearing, is hereby
328 amended by striking out clauses (12) and (13) and inserting in place thereof the following 3
329 clauses:- (12) intervene and advocate on behalf of small commercial and industrial users before
330 the department of public utilities in any dispute between such businesses and generation or
331 distribution companies, as defined pursuant to section 1 of chapter 164; (13) plan, develop,
332 oversee and operate the commercial sustainable energy program, with the Massachusetts
333 Development Finance Agency, in accordance with the provisions of chapter 23M. In accordance
334 with this section, the department shall approve each commercial PACE project prior to the
335 issuance of a PACE bond under chapter 23M and in so doing shall consider whether the energy
336 cost savings of the commercial energy improvements over the useful life of such improvements
337 exceed the costs of such improvements; and (14) develop and adopt, as an appendix to the state
338 building code, in consultation with the board of building regulations and standards, a municipal
339 opt-in specialized stretch energy code that includes, but is not limited to, a definition of net-zero
340 building.

341 SECTION 37. Subsection (c) of section 10 of said chapter 25A, as so appearing, is
342 hereby amended by striking out, in line 38, the words “and (6)” and inserting in place thereof the

343 following words:- (6) opt-in to the specialized stretch energy code promulgated pursuant to
344 clause (14) of section 6; and (7).

345 SECTION 38. Section 93 of chapter 143 of the General Laws, as appearing in the 2018
346 Official Edition, is hereby amended by striking out, in line 6, the word “eleven” and inserting in
347 place thereof the following figure:- 15.

348 SECTION 39. Said section 93 of said chapter 143, as so appearing, is hereby further
349 amended by striking out, in line 8, the word “both” and inserting in place thereof the following
350 words:- 1 of whom shall be the commissioner of energy resources or a designee and all 3.

351 SECTION 40. Said section 93 of said chapter 143, as so appearing, is hereby further
352 amended by striking out, in line 9, the word “nine” and inserting in place thereof the following
353 figure:- 12.

354 SECTION 41. Said section 93 of said chapter 143, as so appearing, is hereby further
355 amended by inserting after the word “department”, in line 17, the following words:- , 1 of whom
356 shall be an expert in commercial building energy efficiency, 1 of whom shall be an expert in
357 residential building energy efficiency, 1 of whom shall be an expert in advanced building
358 technology.

359 SECTION 42. Said section 93 of chapter 143 is hereby further amended by inserting after
360 the word “reappointment”, in lines 26 and 27, the following words:- for a second term, but shall
361 not serve more than 10 total years.

362 SECTION 43. Said section 93 of chapter 143 is hereby further amended by inserting after
363 the word “years”, in line 37, the following words:- or more than 4 years total.

364 SECTION 44. The second paragraph of said section 93 of said chapter 143, as so
365 appearing, is hereby further amended by adding the following sentence:- The board shall keep
366 detailed and accurate minutes of its meetings and shall publish such minutes within 30 days of
367 each meeting.

368 SECTION 45. Said section 93 of said chapter 143, as so appearing, is hereby further
369 amended by inserting after the word “designee”, in line 46, the following words:- , in
370 consultation with the commissioner of energy resources,

371 SECTION 46. Section 94 of said chapter 143, as so appearing, is hereby amended by
372 striking out, in lines 110 to 113, inclusive, the words “as part of the state building code, together
373 with any more stringent energy-efficiency provisions that the board, in consultation with the
374 department of energy resources, concludes are warranted” and inserting in place thereof the
375 following words:- and any amendments thereto as part of the state building code, in consultation
376 with the department of energy resources.

377 SECTION 47. Section 96 of said chapter 143, as so appearing, is hereby amended by
378 inserting, in line 7, after the word “to” the following words:- , the specialized stretch energy code
379 developed and adopted by the department of energy resources.

380 SECTION 48. Section 97 of said chapter 143, as so appearing, is hereby amended by
381 striking out, in line 22, the words “a reasonable time” and inserting in place thereof the following
382 words:- 45 days.

383 SECTION 49. To develop the specialized stretch energy code required by section 6 of
384 chapter 25A of the General Laws, the department of energy resources shall: (i) hold not less than
385 5 public hearings in geographically diverse locations throughout the commonwealth that shall

386 represent the distinguishing characteristics of rural, suburban and urban households, 1 of which
387 shall be held in an underserved community or community with a high percentage of low-income
388 households; and (ii) consider the development of a tiered implementation plan for the adoption of
389 the stretch energy code including, but not limited to, phasing in requirements based on building
390 type or uses. The specialized stretch energy code required by said section 6 of said chapter 25A
391 shall be developed, adopted and incorporated as an appendix to the state building code not later
392 than 1 year after the passage of this act.

393 SECTION 50. Said section 10 of said chapter 25A, as so appearing, is hereby further
394 amended by striking subsection (b) and inserting in place thereof the following subsection:- (b)
395 The division shall establish a green communities program to provide technical and financial
396 assistance, in the form of grants and loans, to municipalities and other local governmental bodies
397 that qualify as green communities under this section. These loans and grants shall be used to
398 finance all or a portion of the costs of studying, designing, constructing and implementing energy
399 efficiency activities, including, but not limited to: (i) energy conservation measures and projects;
400 (ii) procurement of energy management services; (iii) installation of energy management
401 systems; (iv) adoption of demand side reduction initiatives; (v) deployment of energy storage,
402 microgrids or district energy systems connected to renewable energy generation; (vi) installation
403 of zero-emissions vehicles, charging equipment, infrastructure or related technologies; (vii)
404 coordination of residential or small business clean energy outreach, technical assistance or
405 financing programs; and (viii) the adoption of energy efficiency policies. The loans and grants
406 shall also be used to finance the siting and construction of renewable and alternative energy
407 projects on municipally-owned land.

408 SECTION 51. Subsection (a) of section 11F of chapter 25A, as so appearing, is hereby
409 amended by striking out, in line 18 and 19, the words “2029; and (5)” and inserting in place
410 thereof the following words:- 2020; (4) an additional 3.5 per cent of sales each year thereafter.

411 SECTION 52. Chapter 25A of the General Laws, as so appearing, is hereby amended by
412 inserting after section 11F½ the following section:- Section 11F3/4. (a) Each municipal lighting
413 plant shall establish a greenhouse gas emissions standard, which shall be known as the
414 “Municipal Lighting Plant GGES.”

415 (b) A Municipal Lighting Plant GGES shall set the minimum percentage of non-carbon
416 emitting energy sold by each municipal lighting plant to all retail end-user customers purchasing
417 electricity pursuant to rates established pursuant to section 58 of chapter 164 as follows: (i) 50
418 per cent non-carbon emitting energy by 2030; (ii) 75 non-carbon emitting energy per cent by
419 2040; and (iii) energy sales achieving net-zero greenhouse gas emissions by 2050. (c) For the
420 purposes of this section, “non-carbon emitting” shall mean: (i) energy from facilities using the
421 following generation technologies, but only to the extent that any renewable energy credits,
422 emission free energy certificates or other evidentiary non-carbon emitting documentation
423 associated therewith have not been sold, retired, claimed or otherwise represented by another
424 party as part of electrical energy output or sales or used to satisfy obligations in jurisdictions
425 other than the commonwealth: (1) solar photovoltaic; (2) solar thermal electric; (3) hydroelectric,
426 including imports into the New England wholesale electric market as administered by ISO New
427 England Inc.; (4) nuclear; (5) marine or hydrokinetic energy; (6) geothermal energy; (7) landfill
428 methane; (8) anaerobic digester gas; (9) wind energy; and (10) any other generation qualifying
429 for renewable portfolio standards pursuant to section 11F or the department of environmental
430 protection’s clean energy standard regulation pursuant to 310 C.M.R. 7.75 ; (ii) generation that

431 has net lifecycle GHG emissions, over a 20 year life cycle, that yield at least a 50 per cent
432 reduction of greenhouse gas emissions per unit of useful energy relative to the lifecycle
433 greenhouse gas emissions from the aggregate use of the operation of a new combined cycle
434 natural gas electric generating facility using the most efficient commercially available
435 technology as of the date of the statement of qualification application to the department of
436 environmental protection for the portion of electricity delivered by the generation unit; (iii) clean
437 energy credits such as renewable energy certificates, emission free energy certificates or other
438 evidentiary non-carbon emitting documentation derived from each megawatt hour of generation
439 from a resource, that are produced, documented or classified in the NEPOOL GIS that have not
440 otherwise been, nor will be, sold, retired, claimed or represented as part of electrical energy
441 output or sales, or used to satisfy obligations in jurisdictions other than the commonwealth; (iv)
442 generation from resources otherwise determined by the department; or (v) any combination of
443 clauses (i) to (iv).

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

449 (e) A municipal lighting plant shall file an annual report with the department, using a
450 form specified by the department, demonstrating compliance with this section. If a municipal
451 lighting plant fails to comply with the requirements of this section, it shall make a one-time
452 alternative compliance payment, to be known as the “Municipal Lighting Plant ACP” for the
453 year of non-compliance, and on the anniversary of each year that said non-compliance continues

454 thereafter, in the amount 0.25 times the Renewable Portfolio Standard ACP set forth in the
455 department's regulations at 225 C.M.R. 14.00 et seq. per kilowatt hour based on the amount of
456 such deficiency, escalated annually by the Consumer Price Index, but in no event shall said ACP
457 exceed \$0.010 per kilowatt hour. Such Municipal Lighting Plant ACP shall be deposited into a
458 fund that shall be maintained and administered by the municipal light plant and such fund shall
459 be used by the municipal light plant to fund greenhouse gas emissions reduction and related
460 programs in its service territory.

461 SECTION 53. Said chapter 25A is hereby further amended by inserting after section 17
462 the following section:- Section 18. (a) For the purposes of this section, the following words shall
463 have the following meanings unless the context clearly requires otherwise:- "Energy", electricity,
464 natural gas, steam, hot or chilled water, heating oil, propane or other product designated by the
465 department used for heating, cooling, lighting, water heating or for powering or fueling other end
466 uses.

467 "Energy use benchmarking tool", the ENERGY STAR Portfolio Manager, an online
468 energy use benchmarking tool used by the United States Environmental Protection Agency for
469 reporting and managing the energy performance, water efficiency and greenhouse gas emissions
470 of building, or a tool capable of: (i) performing all the functions relevant to compliance with this
471 section; (ii) allowing for reporting by third parties, including, but not limited to, gas distribution
472 and electric distribution companies; and (iii) exchanging information and data with the ENERGY
473 STAR Portfolio Manager.

474 "Gross floor area", the total number of square feet measured between the principal
475 exterior surfaces of enclosing fixed walls.

476 “Nonresidential building”, a building or multiple buildings on a parcel of which not less
477 than 50 per cent of the gross floor area, including hallways or other common space, but
478 excluding parking, is used for commercial, retail, office, professional, educational or other
479 nonresidential purposes or any grouping of nonresidential buildings designated by the
480 department as an appropriate reporting unit for the purposes of this chapter; provided, however,
481 that “nonresidential building” shall not include a state-owned building.

482 “Owner,” the owner of record of a building, or a designated agent thereof, including, but
483 not limited to, the association or organization of unit owners responsible for management in the
484 case of a condominium, the board of directors in the case of a cooperative apartment corporation,
485 and the net lessee in the case of a building subject to a net lease with a term of not less than 49
486 years, inclusive of all renewal options.

487 “Residential building”, a building or multiple buildings on a parcel comprised of 35 or
488 more individual dwelling units of which not less than 50 per cent of the gross floor area,
489 including hallways and other common space serving residents, but excluding parking, is used for
490 dwelling purposes or any grouping of residential buildings designated by the department or a
491 municipality as an appropriate reporting unit for the purposes of this chapter; provided, however,
492 that “residential building” shall not include a state-owned building.

493 “State-owned building”, a building: (i) owned by the commonwealth or an agency or
494 political subdivision thereof; or (ii) for which the commonwealth or an agency or political
495 subdivision thereof regularly pays all annual energy bills.

496 “Tenant”, any tenant, tenant-stockholder of a cooperative apartment corporation or
497 condominium unit owner.

498 (b) For any building identified in subsection (c), the department shall undertake energy
499 use benchmarking to determine whether the building utilizes more or less energy, and emits
500 more or less greenhouse gas, than buildings of comparable size, occupancies and uses. To
501 conduct the benchmarking, the department shall create, procure or designate an energy use
502 benchmarking tool and shall provide technical support and assistance on the use of the
503 benchmarking tool to the owners of buildings subject to this section.

504 (c)(1) Not later than May 1 of each year, the owner of each residential building, each
505 nonresidential building consisting of not less than 35,000 square feet of gross floor area and each
506 state-owned building consisting of not less than 35,000 square feet of gross floor area shall
507 utilize the energy use benchmarking tool to accurately report to the department, or cause to be
508 accurately reported to the department, the building's energy use for the previous calendar year
509 and any other building characteristics determined by the department to be necessary to establish
510 the absolute and relative energy use of the building. The owner of a building subject to this
511 subsection may authorize a gas or electric distribution company or other third party to report
512 building-specific data to the department and the gas or electric distribution company shall report
513 building-specific data to the department upon such authorization; provided, however, that such
514 authorization shall not relieve an owner from compliance with this section. The department shall
515 establish a deadline extension or hardship waiver process for owners who, in the judgment of the
516 department, demonstrate cause for a deadline extension or hardship waiver. To administer this
517 section, the department may establish building types, including, but not limited to, classifications
518 by region, status within a historic district established under chapter 40C and historic district
519 commissions in the commonwealth established by a special act of the legislature, size and

520 occupancy and use, including whether tenant-occupied units or spaces are separately metered,
521 and may establish varying reporting requirements for each type.

522 (2) Annually, an owner of a building with separately-metered and tenant-occupied units
523 or spaces shall request from each tenant of the building all information necessary to comply with
524 the requirements of paragraph (1) and each tenant shall report the required information to the
525 owner. Between January 1 and March 31, an owner shall, in a manner approved by the
526 department, request information relative to a tenant's energy use in the previous calendar year.
527 Upon receipt of an informational request pursuant to this subsection, a tenant of a building shall
528 report to the owner the required information not later than May 31. If a separately-metered tenant
529 has occupied all or a portion of a building subject to the reporting requirements of this section
530 and has vacated the space before reporting energy use to the owner, the owner may immediately
531 request such information for any period of occupancy relevant to the owner's obligation to report
532 and the tenant shall respond within 30 days. The department shall develop values or formulas
533 that an owner may use to estimate whole-building energy use where the owner has made good-
534 faith efforts to obtain required energy use information from a current or former tenant and has
535 been unsuccessful. Failure of a tenant to report energy use information shall not relieve an owner
536 from complying with this section. Failure of an owner to report energy use information to the
537 department shall not impose liability on a tenant. If ownership of a building covered by this
538 paragraph is transferred, the seller shall make reasonable efforts to provide the buyer with
539 information necessary for the buyer to timely report benchmarking data for the entire calendar
540 year, if practicable.

541 (3) The department shall allow a city or town to collect the energy use information
542 required under paragraph (1) in lieu of collection by the department and to require owners of

543 appropriate buildings within its borders to report the information to the city or town if the
544 municipality: (i) notifies the department by October 31 that it will assume the reporting
545 responsibilities required under this section; and (ii) utilizes an energy use benchmarking tool.
546 Annually, not later than April 1, a city or town that collects energy use information under this
547 paragraph shall collect and forward to the department, on a building-by-building basis, the
548 required energy use information from the previous calendar year. The department may designate
549 standardized units of measure and standardized formats to be utilized by a city or town in the
550 reporting and collection of building energy use information. The department shall make
551 reasonable efforts to streamline reporting requirements in a city or town that collects energy use
552 information under this paragraph.

553 (4) If an occupied building subject to the requirements of this section is transferred, the
554 buyer shall make reasonable efforts to report energy use information for the building for the
555 entire calendar year, if practicable.

556 (d) Annually, not later than October 1, the department shall make available on its website
557 energy use information and data for the preceding calendar year for each building subject to this
558 section. For each building, the information made available shall include, but not be limited to: (i)
559 the municipality in which the building is located; (ii) the building's total energy use in MMBTU,
560 total greenhouse gas emissions in pounds of carbon dioxide equivalent, total square footage,
561 energy intensity in kBtu per square foot and greenhouse gas emissions per square foot in
562 pounds of carbon dioxide equivalent per square foot; (iii) the breakdown of the building's energy
563 use by electricity, gas, steam and other sources; and (iv) an energy performance rating or
564 assessment score, where available, as determined by the energy use benchmarking tool. The
565 department shall maintain a privacy and quality assurance process to improve the accuracy and

566 completeness of the available information, including, but not limited to, an opportunity for the
567 owner to review and comment on the information. The department shall provide owners with the
568 opportunity to submit contextual information related to energy use in their buildings and shall
569 disclose such information upon request by the owner. The department shall annually publish
570 summary statistics at the zip code or census tract level on its website.

571 (e) The department shall prepare an annual comprehensive report on the energy
572 performance of buildings utilizing the information and data collected pursuant to this section.
573 The report shall be protective of privacy information and include, but not be limited to, an
574 analysis of energy performance and greenhouse gas emissions by building size, occupancy, use,
575 energy source, region and, when available, energy performance and greenhouse gas emissions
576 over time. The department shall make available to a regional planning agency, municipality or
577 other public agency requesting such information any data set forth in this section, utilizing such
578 practices as are necessary to prevent the public disclosure of personal information regarding
579 owners and tenants. The report shall be posted on the department's website and filed with the
580 house and senate committees on ways and means and the joint committee on telecommunication,
581 utilities and energy not later than December 31.

582 (f) On the basis of the comprehensive reports prepared by the department pursuant to
583 subsection (e) and other information and data as deemed necessary by the secretary of energy
584 and environmental affairs, the secretary shall conduct annual reviews of improvements or the
585 lack thereof in the energy performance of buildings specified in subsection (c). If the reviews
586 indicate a lack of substantial improvement from year to year in the energy performance of a
587 building subject to this section, the secretary may recommend energy actions, assessments,
588 audits and performance standards to improve the energy performance of the building.

589 (g) The department shall ensure that electric distribution companies and municipal
590 aggregators provide to owners subject to this section up-to-date information regarding energy
591 efficiency opportunities or actions available to increase energy efficiency, including incentives in
592 utility-administered or other energy efficiency programs and changes in energy assessment
593 technology. The department shall prioritize those buildings that have not displayed improvement
594 year-to-year in reducing energy usage.

595 (g) Nothing in this section shall preempt a city or town from maintaining an energy use
596 benchmarking program or from setting and enforcing energy performance standards for
597 buildings.

598 SECTION 54. Section 2 of chapter 25B of the General Laws, as appearing in the 2016
599 Official Edition, is hereby amended by inserting after the definition of “Central furnace” the
600 following 6 definitions:- “Color rendering index” or “CRI”, the measure of the degree of color-
601 shift objects undergo when illuminated by a light source as compared to the color of those same
602 objects when illuminated by a reference source of comparable color temperature.

603 “Commercial hot-food holding cabinet”, a heated, fully-enclosed compartment with 1 or
604 more solid or transparent doors designed to maintain the temperature of hot food that has been
605 cooked using a separate appliance. A commercial hot-food holding cabinet shall not include
606 heated glass merchandizing cabinets, drawer warmers or cook-and-hold appliances.

607 “Commercial dishwasher” a machine designed to clean and sanitize plates, pots, pans,
608 glasses, cups, bowls, utensils, and trays by applying sprays of detergent solution (with or without
609 blasting media granules) and a sanitizing rinse.

610 “Commercial fryer” an appliance, including a cooking vessel, in which oil is placed to
611 such a depth that the cooking food is essentially supported by displacement of the cooking fluid
612 rather than by the bottom of the vessel. Heat is delivered to the cooking fluid by means of an
613 immersed electric element of band-wrapped vessel (electric fryers) or by heat transfer from gas
614 burners through either the walls of the fryer or through tubes passing through the cooking fluid
615 (gas fryers).

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

618 “Commercial steam cooker,” also known as “compartment steamer,” a device with one
619 or more food-steaming compartments in which the energy in the steam is transferred to the food
620 by direct contact. Models may include countertop models, wall-mounted models, and floor
621 models mounted on a stand, pedestal, or cabinet-style base.

622 SECTION 55. Said section 2 of said chapter 25B, as so appearing, is hereby further
623 amended by inserting after the definition of “Compensation” the following 3 definitions:- “Dual-
624 flush effective flush volume”, the average flush volume of 2 reduced flushes and 1 full flush.

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

627 “Electric vehicle supply equipment” means the conductors, including the ungrounded,
628 grounded, and equipment grounding conductors, the electric vehicle connectors, attachment
629 plugs, and all other fittings, devices, power outlets, or apparatuses installed specifically for the
630 purpose of delivering energy from the premises wiring to the electric vehicle. Charging cords

631 with NEMA 5-15P and NEMA 5-20P attachment plugs are considered electric vehicle supply
632 equipment. Excludes conductors, connectors, and fittings that are part of a vehicle.

633 SECTION 56. Said section 2 of said chapter 25B, as so appearing, is hereby further
634 amended by striking out the definition of “High-intensity discharge lamp”.

635 SECTION 57. Said section 2 of said chapter 25B, as so appearing, is hereby further
636 amended by inserting after the definition of “Electricity Ratio (ER)” the following 2 definitions:-
637 “Faucet”, a lavatory faucet, kitchen faucet, metering faucet, public lavatory faucet, or
638 replacement aerator for a lavatory or kitchen faucet.

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

640 SECTION 58. Said section 2 of said chapter 25B, as so appearing, is hereby further
641 amended by inserting after the definition of “F96T12 Lamp” the following 5 definitions:-
642 “General service lamp” has the same meaning as set forth in 10 CFR 430.2.

643 “State-regulated general service lamp” includes the following: (1) Shatter-resistant
644 incandescent lamps, 3-way incandescent lamps and high lumen output incandescent lamps rated
645 at more than 2600 lumens or, in the case of a modified spectrum lamp, more than 1950 lumens,
646 and less than or equal to 3,300 lumens.

647 (2) Incandescent reflector lamps that are: (a) ER30, BR30, BR40, or ER40 lamps rated at
648 50 Watts or less;

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

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

651 (3)Incandescent lamps that are:”

652 (a)T shape lamps rated at ≤ 40 Watts or ≥ 10 inches in length;

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

654 (c)M-14 lamps rated at ≤ 40 Watts.

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

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

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

661 SECTION 59. Said section 2 of said chapter 25B, as so appearing, is hereby further
662 amended by inserting after the definition of “New appliance” the following 4 definitions:-

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

664 “Plumbing fitting”, a device that controls and guides the flow of water in a supply
665 system. “Plumbing fixture”, an exchangeable device, which connects to a plumbing system to
666 deliver and drain away water and waste.

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

669 SECTION 60. Said section 2 of said chapter 25B, as so appearing, is hereby further
670 amended by inserting after the definition of “Probe-start metal halide ballast” the following
671 definition:-

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

674 SECTION 61. Said section 2 of said chapter 25B, as so appearing, is hereby further
675 amended by inserting after the definition of “Refrigerator-freezer” the following definition:-

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

678 SECTION 62. Said section 2 of said chapter 25B, as so appearing, is hereby further
679 amended by inserting after the definition of “Residential furnace or boiler” the following 2
680 definitions:- “Residential ventilating fan”, a ceiling, wall-mounted, or remotely mounted in-line
681 fan designed to be used in a bathroom or utility room, whose purpose is to move air from inside
682 the building to the outdoors.

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

685 SECTION 63. Said section 2 of said chapter 25B, as so appearing, is hereby further
686 amended by inserting after the definition of “Single-voltage external AC to DC power supply”
687 the following 2 definitions:-

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

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

691 SECTION 64. Said section 2 of said chapter 25B, as so appearing, is hereby further
692 amended by inserting after the definition of “State plumbing code” the following definition:-

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

696 SECTION 65. Said section 2 of said chapter 25B, as so appearing, is hereby further
697 amended by inserting after the definition of “Transformer” the following 4 definitions:-

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

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

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

703 “Water cooler”, a freestanding device that consumes energy to cool or heat potable water;
704 provided however, that such device is not wall-mounted, under-sink or otherwise building
705 integrated.

706 SECTION 66. Said section 2 of said chapter 25B, as so appearing, is hereby further
707 amended by inserting after the definition of “Water heater” the following definition:-

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

710 SECTION 67. Section 3 of said chapter 25B, as so appearing, is hereby amended by
711 inserting after clause (j) the following clauses:-

712 (k) commercial hot-food holding cabinets.

713 (l) computers and computer monitors.

714 (m) state-regulated general service lamps.

715 (n) high CRI fluorescent lamps.

716 (o) plumbing fittings.

717 (p) plumbing fixtures.

718 (q) portable electric spas.

719 (r) water coolers.

720 (s) residential ventilating fans

721 (t) commercial ovens

722 (u) commercial dishwashers

723 (v) commercial fryers

724 (w) commercial steam cookers

725 (x) spray sprinkler bodies

726 (y) electric vehicle supply equipment

727 SECTION 68. Section 5 of said chapter 25B, as so appearing, is hereby amended by
728 striking out the words, in line 24, “clauses (f) to (s)” and inserting in place thereof the following
729 words:- clauses (f) to (y).

730 SECTION 69. The third paragraph of said section 5 of said chapter 25B, as so appearing,
731 is hereby amended by adding after clause (5) the following clauses:-

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

735 (7) Computers and computer monitors shall meet the requirements of section 1605.3 of
736 Title 20 of the California Code of Regulations, as in effect on the date of enactment of this Act,
737 as measured in accordance with test methods prescribed in section 1604 of those regulations.

738 1) The rules shall define “computer” and “computer monitor” to have the same meaning
739 as set forth in 20 C.C.R. § 1602(v).

740 2) The referenced portions of the C.C.R. shall be those adopted on or before the effective
741 date of this act. However, the commissioner shall have authority to amend the rules so that the
742 definitions of “computer” and “computer monitor” and the minimum efficiency standards for
743 computers and computer monitors conform to subsequently adopted modifications to the
744 referenced sections of the C.C.R.

745 (8) State-regulated general service lamps shall meet or exceed a lamp efficacy of 45
746 lumens per watt, when tested in accordance with the applicable federal test procedures for

747 general service lamps, prescribed in Section 430.23 (gg) of Title 10 of the Code of Federal
748 Regulations.

749 (9) High CRI, fluorescent lamps shall meet the minimum efficiency requirements
750 contained in Section 430.32(n)(4) of Title 10 of the Code of Federal Regulations as in effect on
751 January 3, 2019, when tested in accordance with the test procedure prescribed in Appendix R to
752 Subpart B of Part 430 of Title 10 of the Code of Federal Regulations as in effect on January 3,
753 2019:

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

755 (a) When tested in accordance with the flow rate test procedure prescribed in Appendix S
756 to Subpart B of Part 430 of Title 10 of the Code of Federal Regulations: the flow rate of lavatory
757 faucets and replacement aerators shall not be greater than 1.5 gallons per minute (hereafter
758 referred to as gpm) at 60 pounds per square inch (hereafter referred to as psi); for sprayheads
759 with independently controlled orifices and manual controls, the maximum flow rate of each
760 orifice that manually turns on or off shall not exceed the maximum flow rate for a lavatory
761 faucet; and for sprayheads with collectively controlled orifices and manual controls, the
762 maximum flow rate of a sprayhead that manually turns on or off shall be the product of (i) the
763 maximum flow rate for a lavatory faucet, and (ii) the number of component lavatories (rim space
764 of the lavatory in inches (millimeters) divided by 20 inches [508 millimeters]);

765 (b) The flow rate of residential kitchen faucets and replacement aerators shall not be
766 greater than 1.8 gpm with optional temporary flow of 2.2 gpm at 60 psi when tested in
767 accordance with the flow rate test procedure prescribed in Appendix S to Subpart B of Part 430
768 of Title 10 of the Code of Federal Regulations; and

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

772 (d) The flow rate of showerheads shall not be greater than 2.0 gpm at 80 psi when tested
773 in accordance with the flow rate test procedure prescribed in Appendix S to Subpart B of Par 430
774 of Title 10 of the Code of Federal Regulations, effective on January 3, 2019.

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

776 (a) The water consumption of urinals and water closets, other than those designed and
777 marketed exclusively for use at prisons or mental health care facilities, shall be no greater than
778 the values shown in items (a)(ii)(A) through (a)(ii)(D) when tested in accordance with the:

779 (i) Water consumption test prescribed in Appendix T to Subpart B of Part 430 of Title 10
780 of the Code of Federal Regulations.

781 (ii) Waste extraction test for water closets (Section 7.9) of ASME A112.19.2/CSA B45.1-
782 2018.

783 (b) Urinals shall have a maximum flush volume of 0.5 gallons per flush.

784 (c) Water closets, except for dual-flush tank-type water closets, shall have a maximum
785 flush volume of 1.28 gallons per flush.

786 (d) Dual-flush tank-type water closets shall have a maximum effective flush volume of
787 1.28 gallons per flush.

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

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

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

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

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

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

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

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

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

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

812 (19) Spray sprinkler bodies that are not specifically excluded from the scope of the
813 WaterSense Specification for Spray Sprinkler Bodies, Version 1.0, shall include an integral
814 pressure regulator and shall meet the water efficiency and performance criteria and other
815 requirements of that specification.

816 (20) Electric vehicle supply equipment included in the scope of the ENERGY STAR
817 Program Requirements Product Specification for Electric Vehicle Supply Equipment, Version
818 1.0 (Rev. Apr-2017), shall meet the qualification criteria of that specification.

819 SECTION 70. Said section 5 of said chapter 25B, as so appearing, is hereby further
820 amended by inserting after the fourth paragraph the following paragraph:-

821 On or after January 1, 2022, no new, commercial dishwasher, commercial fryer,
822 commercial hot-food holding cabinet, commercial oven, commercial steam cooker, computer or
823 computer monitor, electric vehicle supply equipment, faucet, high CRI fluorescent lamp,
824 portable electric spa, residential ventilating fan, shower head, spray sprinkler body, urinal, water
825 closet, or water cooler may be sold or offered for sale, lease, or rent in the state unless the
826 efficiency of the new product meets or exceeds the efficiency standards set forth in the
827 regulations adopted pursuant to Section 16.

828 a) On or after the date 12 months after enactment of this ACT, no state-regulated general
829 service lamp may be sold or offered for sale in the state unless the efficiency of the new product
830 meets or exceeds the efficiency standards provided in Section 16.

831 SECTION 71. Section 9 of said chapter 25B, as so appearing, is hereby amended by
832 inserting after the first paragraph the following paragraph:-

833 If any of the energy or water conservation standards issued or approved for publication
834 by the Office of the United States Secretary of Energy as of January 1, 2018 pursuant to the
835 Energy Policy and Conservation Act, 10 C.F.R. §§ 430-431, are withdrawn, repealed or
836 otherwise voided, the minimum energy or water efficiency level permitted for products
837 previously subject to federal energy or water conservation standards shall be the previously
838 applicable federal standards and no such product may be sold or offered for sale in the state
839 unless it meets or exceeds such standards.

840 SECTION 72. Chapter 29 of the General Laws is hereby amended by inserting after
841 section 2GGGGG the following section:-

842 Section 2HHHHH. There is hereby established and set up on the books of the
843 commonwealth an expendable trust to be known as the Low-Income Support Service Solar
844 Program. The secretary of energy and environmental affairs shall establish a grant program to
845 provide solar energy technology to nonprofit organizations offering support services related to
846 food security, homelessness and emergency shelter. The amounts credited to the trust shall be
847 available for expenditure, subject to appropriation, not to exceed \$500,000 in a fiscal year for the
848 costs associated with purchasing and installing solar energy generating equipment for nonprofit
849 organizations that meet criteria set forth by the secretary.

850 SECTION 73. Section 62 of chapter 30 of the General Laws, as so appearing is hereby
851 amended by inserting after the definition of “Agency” the following 5 definitions:-

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

856 “Environmental burdens”, any destruction, damage or impairment of natural resources
857 that is not insignificant, resulting from intentional or reasonably foreseeable causes, including
858 but not limited to, air pollution, water pollution, improper sewage disposal, dumping of solid
859 wastes and other noxious substances, excessive noise, activities that limit access to natural
860 resources and constructed outdoor recreational facilities and venues, inadequate remediation of
861 pollution, reduction of ground water levels, impairment of water quality, increased flooding or
862 storm water flows, and damage to inland waterways and waterbodies, wetlands, marine shores
863 and waters, forests, open spaces, and playgrounds from private industrial, commercial or
864 government operations or other activity that contaminates or alters the quality of the environment
865 and poses a risk to public health.

866 "Environmental justice population", a neighborhood that meets 1 or more of the
867 following criteria: (i) the annual median household income is not more than 65 per cent of the
868 statewide annual median household income; (ii) minorities comprise 40 per cent or more of the
869 population; (iii) 25 per cent or more of households lack English language proficiency; or (iv)
870 minorities comprise 25 per cent or more of the population and the annual median household
871 income of the municipality in which the neighborhood is located does not exceed 150 per cent of

872 the statewide annual median household income; provided, however, that for a neighborhood that
873 does not meet said criteria, but a geographic portion of that neighborhood meets at least 1
874 criterion, the secretary may designate that geographic portion as an environmental justice
875 population upon the petition of at least 10 residents of the geographic portion of that
876 neighborhood meeting any such criteria. The secretary may determine that a neighborhood,
877 including any geographic portion, shall not be designated an environmental justice population
878 upon finding the annual median household income of that neighborhood is greater than 125 per
879 cent of the statewide median household income; a majority of persons age 25 and older in that
880 neighborhood have a college education; the neighborhood does not bear an unfair burden of
881 environmental pollution; and has more than limited access to natural resources, including open
882 spaces and water resources, playgrounds and other constructed outdoor recreational facilities and
883 venues.

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

891 "Neighborhood," a census block group as defined by the U.S. Census Bureau, excluding,
892 people who live in college dormitories and people who are under formally authorized, supervised
893 care or custody, including federal, state or county prisons.

894 SECTION 74. Section 62B of said chapter 30, as so appearing, is hereby amended by
895 striking out the first sentence of the third paragraph and inserting, in place thereof, the following
896 sentence:-

897 An environmental impact report shall contain statements describing the nature and extent
898 of the proposed project and its environmental and public health impact as result of any
899 development, alteration and operation of the project; studies to evaluate said impacts; all
900 measures being utilized to minimize any anticipated environment and public health damage; and
901 any adverse short-term and long-term environmental and public health consequences that cannot
902 be avoided should the project be undertaken.

903 SECTION 75. Said section 62B of said chapter 30, as so appearing, is hereby further
904 amended by adding the following paragraph:- An environmental impact report shall be required
905 for any project that is likely to cause damage to the environment that is not insignificant and is
906 located within a distance of 1 mile of an environmental justice population; provided, that for a
907 project that impacts air quality, such environmental impact report shall be required if the project
908 is likely to cause damage to the environment that is not insignificant and is located within a
909 distance of 5 miles of an environmental justice population. Said report shall contain statements
910 about the results of an assessment of any existing unfair or inequitable environmental burden and
911 related public health consequences impacting the environmental justice population from any
912 prior or current, private, industrial, commercial, state, or municipal operation or project that has
913 damaged the environment. The required assessment shall conform to the standards and
914 guidelines established by the secretary. If the assessment indicates an environmental justice
915 population is subject to an existing unfair or inequitable environmental burden or related health
916 consequence the report shall identify any: (i) environmental and public health impact from the

917 proposed project that would likely result in a disproportionate adverse effect on such population,
918 and (ii) potential impact or consequence from the proposed project that would increase or reduce
919 the effects of climate change on the environmental justice population. The secretary may require
920 that an assessment be performed at any stage of the review process.

921 SECTION 76. Section 62E of said chapter 30, as so appearing, is hereby amended by
922 adding the following paragraph:- No agency shall exempt from an environmental impact report
923 any project that is located in a neighborhood that has an environmental justice population and is
924 reasonably likely to cause damage to the environment, as defined in section 61. The provisions
925 of this paragraph shall not apply to emergency actions essential to avoid or eliminate a threat to
926 public health or safety, or threat to any natural resource, undertaken in compliance with section
927 62F.

928 SECTION 77. Chapter 30 of the General Laws is hereby amended by adding after section
929 62I the following 2 sections:-

930 Section 62J. To enable the public to assess the impact of proposed projects that affect
931 their environment, health and safety through the project review process established under
932 sections 61 through 62J, inclusive, the secretary shall provide opportunities for meaningful
933 public involvement. For any proposed project that requires the filing of an environmental
934 notification form, the proponent of the project shall indicate on the document whether an
935 environmental justice population that lacks English language proficiency within a designated
936 geographical area is reasonably likely to be affected negatively by the project. If a proposed
937 project is significant and affects an environmental justice population, the secretary shall require
938 additional measures to improve public participation by the environmental justice population.

939 Such measures shall include, as appropriate: (i) making public notices, environmental
940 notification forms, environmental impact reports, and other key documents related to the
941 secretary's review and decisions of a project review available in English and any other language
942 spoken by a significant number of the affected environmental justice population; (ii) providing
943 translation services at public meetings for a significant portion of an affected environmental
944 justice population that lacks English proficiency in the project's designated geographic area; (iii)
945 require public meetings be held in accessible locations that are near public transportation; (iv)
946 provide appropriate information about the project review procedure for the proposed project; and
947 (vi) where feasible, establish a local repository for project review documents, notices and
948 decisions. The secretary of energy and environmental affairs may require such additional
949 measures as appropriate for non-significant projects, or to improve participation opportunities for
950 persons in an environmental justice population that lack English language proficiency and do not
951 speak a dominant language spoken by such population.

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

956 Section 62K. The secretary shall consider the environmental justice principles, as defined
957 in section 62, in making any policy or determination, or taking any action relating to a project
958 review, undertaken pursuant to sections 61 through 62J, inclusive to reduce the potential for
959 unfair or inequitable affects upon an environmental justice population. To further the
960 environmental justice principles the secretary shall direct its agencies, including the departments,
961 divisions, boards and offices under the secretary's control and authority, to consider the

962 environmental justice principles in making any policy, determination or taking any other action
963 related to a project review, or in undertaking any project, under said sections and related
964 regulations which is likely to affect environmental justice populations.

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

968 Section 62L. There shall be an environmental justice council to advise and provide
969 recommendations to the secretary of energy and environmental affairs on relevant policies and
970 standards to achieve the environmental justice principles. The council shall consist of at least 9,
971 but not more than 15 fifteen members appointed by the governor, who shall designate a chair.

972 Members may be removed without cause, by the governor. All members shall serve
973 without compensation.

974 The secretary of energy and environmental affairs shall consult with the environmental
975 justice council before making any substantial adoptions, revisions or amendments to any
976 regulation related to the definition of environmental justice population as defined in section 62.
977 The environmental justice council shall conduct a comprehensive analysis by no later than July
978 31, 2022 and thereafter, every fifth year, to ensure the definition of environmental justice
979 population in section 62 achieves the objectives of the environmental justice principles. The
980 analysis shall include, but not be limited to, an evaluation of this definition as compared to the
981 demographics of environmental justice populations in the commonwealth. As part of the
982 analysis, said council shall provide advice and make recommendations to the secretary on any
983 necessary changes to the percentage thresholds included in this definition and any related

984 regulation. The secretary shall consider the recommendations of the council regarding any
985 proposed changes to the percentage thresholds under this definition, provided however, such
986 changes are needed to achieve and promote the environmental justice principles as defined under
987 section 61. Proposed regulations shall be adopted only after the approval of the council by a
988 majority vote in the affirmative of those members so voting.

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

992 SECTION 78. Section 5 of chapter 59 of the General Laws, as so appearing, is hereby
993 amended by striking out clause Forty-fifth and inserting in place thereof the following clause:-

994 Forty-fifth, Any solar or wind powered system that is capable of producing not more than
995 125 per cent of the annual energy needs of the residential real property upon which it is located.
996 Any other solar or wind powered system capable of producing energy shall be taxable unless the
997 owner has executed an agreement for a payment in lieu of taxes with the city or town where the
998 system is located. The chief executive officer, as defined in section 7 of chapter 4, of a city or
999 town may execute any such agreement for a payment in lieu of taxes with the owner of a solar or
1000 wind powered system in the municipality where the solar or wind powered system is located.

1001 Unless otherwise provided by such agreement, (1) a notice of the payment in lieu of taxes
1002 owed for each fiscal year shall be mailed to the owner and due on the dates by which a tax
1003 assessed under this chapter would be payable without interest; (2) all provisions of law regarding
1004 billing and collecting a tax assessed under this chapter shall apply to the payment in lieu of taxes,
1005 including the payment of interest; and (3) upon issuance of the notice, the owner shall have the

1006 remedies provided by section 59 and section 64 and all other applicable provisions of law for the
1007 abatement and appeal of taxes upon real estate.

1008 Any exemption pursuant to this clause shall be allowed for a period of not more than 20
1009 years from the date of installation of the system; provided, however, that no exemption shall be
1010 allowed for any year within that period where the solar or wind powered system is not capable of
1011 producing energy as required by this clause. Each owner shall annually, on or before March 1,
1012 make a declaration under oath to the assessors regarding the system and power generated for the
1013 previous calendar year. This clause shall not apply to projects developed pursuant to section 1A
1014 of chapter 164.

1015 SECTION 79. Section 5 of chapter 59 of the General Laws, as so appearing is hereby
1016 amended by striking out, in line 13, the words “or Forty-fifth” and inserting in place thereof the
1017 following words:- , Forty-fifth or Forty-fifth B.

1018 SECTION 80. Said section 5 of said chapter 59, as so appearing, is hereby further
1019 amended by inserting after clause Forty-fifth A the following clause:-

1020 Forty-fifth B, Any qualified fuel cell powered system, the construction of which was
1021 commenced after January 1, 2020, that is capable of producing not more than 125 per cent of the
1022 annual energy needs of the real property upon which it is located, which shall include contiguous
1023 or non-contiguous real property owned or leased by the owner. Any other qualified fuel cell
1024 powered system shall be exempt provided that the owner has made to the city or town where the
1025 system is located a payment in lieu of taxes. A city or town, acting through the board or officer
1026 authorized by its legislative body, may execute an agreement for the payment in lieu of taxes
1027 with the owner of a qualified fuel cell powered system in the municipality where the qualified

1028 fuel cell powered system is located. Unless otherwise provided by such agreement, (1) a notice
1029 of the payment in lieu of tax owed for each fiscal year shall be mailed to the owner and due on
1030 the dates by which a tax assessed under this chapter would be payable without interest; (2) all
1031 provisions of law regarding billing and collecting a tax assessed under this chapter shall apply to
1032 the payment in lieu of taxes, including the payment of interest; and (3) upon issuance of the
1033 notice, the owner shall have the remedies provided by section 59, section 64 and all other
1034 applicable provisions of law for the abatement and appeal of taxes upon real estate. An
1035 exemption under this clause shall be allowed only for a period of 20 years from the date of
1036 completion of the construction of the qualified fuel cell powered system; provided, however, that
1037 no exemption shall be allowed for any year within that period when the qualified fuel cell
1038 powered system is not capable of producing energy as required by this clause. Each owner shall
1039 annually, on or before March 1, make a declaration under oath to the assessors regarding the
1040 system and power generated for the previous calendar year. This clause shall not apply to
1041 projects developed under section 1A of chapter 164.

1042 For the purposes of this clause, “qualified fuel cell powered system” shall mean an
1043 integrated system comprised of a fuel cell stack assembly and associated components that
1044 utilizes and converts natural gas or renewable fuels into electricity and is being utilized as the
1045 primary or auxiliary power system for the real property upon which it is located, which shall
1046 include contiguous or non-contiguous real property owned or leased by the owner, or in which
1047 the owner otherwise holds an interest.

1048 SECTION 81. Subsection (b) of section 38H of said chapter 59, as so appearing, is
1049 hereby amended by inserting after the first sentence the following sentence:- For purposes of this

1050 subsection, a generation facility shall not include a facility powered by a qualified fuel cell
1051 powered system, as defined in clause Forty-fifth B of section 5, to generate electricity.

1052 SECTION 82. Said chapter 82, as so appearing, is hereby amended by striking out
1053 section 40E, and inserting in place thereof the following section:-

1054 Section 40E. Any person or company found by the department, after a hearing, to have
1055 violated any provision of sections 40A to 40E, inclusive, shall be fined not more than \$200,000;
1056 provided that nothing herein shall be construed to require the forfeiture of any penal sum
1057 by a residential property owner for the failure to pre-mark for an excavation on such person's
1058 residential property.

1059 SECTION 83. Section 185 of chapter 149 of the General Laws, as so appearing, is hereby
1060 amended by inserting, after the definition of "public body" the following definition:-

1061 (3½) "Public utility employer," a gas and electricity public utility provider.

1062 SECTION 84. Said section 185 of said chapter 149, as so appearing, is hereby further
1063 amended by inserting in lines 4, 20, 24, 29, 32 to 33, 33, 42, 43, 57, 61, 79, 84, 88, 89, 97, 99,
1064 and 103 after the word "employer" in each instance, thereof the following:- or public utility
1065 employer.

1066 SECTION 85. Said section 185 of said chapter 149, as so appearing, is hereby further
1067 amended by inserting in lines 33 to 34 and 44 after the word "relationship," in each instance
1068 thereof the following:- including private contractors hired to perform work customarily
1069 performed by employees of public utility employers,.

1070 SECTION 86. Section 1E of chapter 164 of the General Laws, as so appearing, is hereby
1071 amended in line 12 by inserting after the word "levels" the following:- , public safety measures,.

1072 SECTION 87. Section 1F of said chapter 164, as so appearing, is hereby amended by
1073 adding the following:-

1074 (h) The department shall ensure that all written complaints under this section received
1075 from customers and the public regarding gas providers are investigated and a response to the
1076 complainant provided in a timely manner. The department shall establish a publicly accessible
1077 database of all complaints received, noting the category of complaint, the date it was received,
1078 the steps taken to address the complaint and that date it was resolved.

1079 SECTION 88. Section 1J of chapter 164 of the General Laws, as so appearing, is hereby
1080 amended by striking out, in line 5, the figure "250,000" and inserting in place thereof the
1081 following figure:- 500,000.

1082 SECTION 89. Said section 1J of said chapter 164, as so appearing, is hereby further
1083 amended by striking out, in line 8, the figure "20,000,000" and inserting in place thereof the
1084 following figure:- 50,000,000.

1085 SECTION 90. Section 105A of said chapter 164, as so appearing, is hereby amended by
1086 striking out, in lines 21 to 23, inclusive, the words "as specified in 49 U.S.C. section 60122(a)(1)
1087 or any successor statute enacted into federal law for the same purposes as said section
1088 60122(a)(1)" and inserting in place thereof the following words:- of not more than \$500,000 for
1089 each violation; provided, however, that the maximum civil penalty under this section for a
1090 related series of violations shall be \$10,000,000; and, provided further that the dollar limits in
1091 this sentence shall be doubled in the event that the department determines that the violator has

1092 engaged in one or more similar violations in the three years preceding the violation. A separate
1093 violation occurs for each day the violation continues.

1094 SECTION 91. Said Chapter 164 of the General Laws, as so appearing, is hereby amended
1095 by inserting after section 115A, the following 3 sections:

1096 Section 115B. The department shall promulgate regulations establishing: (1) inspection
1097 and reporting requirements for the inspection of pipe, including gas company service lines
1098 connected to an inside meter from the pipeline, and (2) notice to occupants of the inspection
1099 process and any findings resulting therefrom, and (3) hazard repair and replacement
1100 requirements.

1101 Section 115C. Every gas piping system shall be constructed, operated and maintained in
1102 compliance with federal pipeline safety standards pursuant to 49 CFR 192. Notwithstanding any
1103 general or special law to the contrary, the department may establish pipeline safety standards that
1104 exceed those set forth in 49 CFR 192. In establishing such standards, the department may
1105 consider recommended practices issued by industry or non-profit organizations.

1106 Section 115D. The department shall promulgate regulations for improving emergency
1107 preparedness and response during emergency situations concerning the transportation or
1108 distribution of gas. Regulations shall address communication and coordination between the
1109 commonwealth, municipalities and other governmental entities.

1110 SECTION 92. Section 144 of said chapter 164, as so appearing, is hereby amended by
1111 inserting the following subsections:

1112 (g) Upon the undertaking of any planned project involving excavation for purposes of
1113 performing maintenance on or construction involving gas mains or services by gas company
1114 employees, or any blasting work, the gas company shall ensure that employees first locate,
1115 identify and mark all gas gates and valves, and verify that all are cleared, operational and
1116 accessible in clear sight at ground level in advance of any excavation; and that said gas gates and
1117 valves are left cleared and operational following any such project.

1118 (h) A gas company shall ensure that any shut off valve in the significant project area has
1119 a gate box installed upon it by its employees to ensure continued public safety.

1120 SECTION 93. Chapter 164 of the General Laws is hereby amended by striking out the
1121 first sentence of paragraph (3) of subsection (b) of section 144, as so appearing, and inserting in
1122 its place the following:

1123 (3) A Grade 2 leak shall be a leak that is recognized as non-hazardous to persons or
1124 property at the time of detection, but justifies scheduled repair based on probable future hazard.
1125 The gas company shall repair Grade 2 leaks or replace the main within 6 months from the date
1126 the leak was classified; provided, however, that said repair or replacement may take place later
1127 than 6 months from the date the leak is classified, but no later than 12 months from the date the
1128 leak is classified, if any required permits for such repair or replacement are temporarily withheld
1129 consistent with a seasonal moratorium.

1130 SECTION 94. Said section 144 of said chapter 164, as so appearing, is hereby amended
1131 by inserting after subsection (g), inserted by amendment 28, the following 3 subsections:-

1132 (h) Each distribution company shall maintain an accurate and timely record of any Grade
1133 3 leaks that, upon re-inspection, are upgraded to a Grade 1 or 2 leak. The department shall

1134 establish a service quality metric for the same, and each distribution company shall report any
1135 upgrades of Grade 3 leaks to the department on a monthly basis.

1136 (i) The department shall promulgate regulations establishing requirements for the
1137 maintenance, timely updating, accuracy, and security of gas distribution company maps and
1138 records.

1139 (j) Disruptions in the provision of electronic data, including but not limited to, maps and
1140 records relevant to inspections, maintenance, repairs, and construction to its in-house workforce
1141 and contractors, lasting more than 30 minutes to field personnel and field contractors shall be
1142 incorporated as a metric in the department's service quality indicators for local distribution
1143 companies.

1144 SECTION 95. Section 145 of said chapter 164, as so appearing, is hereby amended by
1145 striking out subsection (b) and inserting in place thereof the following subsection:-

1146 (b) A gas company shall file with the department a plan to address aging or leaking
1147 natural gas infrastructure within the commonwealth and the leak rate on the gas company's
1148 natural gas infrastructure in the interest of public safety and reducing lost and unaccounted for
1149 natural gas through a reduction in natural gas system leaks. Each company's gas infrastructure
1150 plan shall include interim targets for the department's review. The department shall review these
1151 interim targets to ensure each gas company is meeting the appropriate pace to reduce the leak
1152 rate on and to replace the gas company's natural gas infrastructure in a safe and timely manner.

1153 The interim targets shall be for periods of not to exceed five years. The gas companies
1154 shall incorporate these interim targets into timelines for removing all leak-prone infrastructure
1155 filed pursuant to subsection(c) and may update them based on overall progress. The department

1156 may levy a penalty against any gas company that fails to meet its interim target in an amount up
1157 to and including the equivalent of 2.5 per cent of such gas company's transmission and
1158 distribution service revenues for the previous calendar year.

1159 SECTION 96. Section 145 of chapter 164 of the General Laws, as so appearing, is hereby
1160 amended in line 33 by striking the words “and (vi) any other information the department
1161 considers necessary to evaluate the plan.”, and inserting in place thereof - (vi) the relocations of a
1162 meter located inside of a structure to the outside of said structure for the purpose of improving
1163 public safety; and (vii) any other information the department considers necessary to evaluate the
1164 plan.

1165 SECTION 97. Subsection (c) of said section 145 of said chapter 164, as so appearing, is
1166 hereby amended by striking out the first sentence of the second paragraph and inserting in place
1167 thereof the following sentence:-

1168 As part of each plan filed under this section, a gas company shall include a timeline for
1169 removing all leak-prone infrastructure on an accelerated basis specifying an annual replacement
1170 pace and program end date with a target end date of either (i) not more than 20 years from the
1171 filing of a gas company's initial plan, or (ii) a reasonable target end date considering the
1172 allowable recovery cap established pursuant to subsection (f).

1173 SECTION 98. The department of public utilities shall establish rules and regulations by
1174 which the qualifications of contractors shall be evaluated. Contractors who wish to be eligible to
1175 receive contracts with a gas company to perform gas work shall be required to register and
1176 provide all required documentation to meet certification requirements with the department on an
1177 annual basis.

1178 SECTION 99. Notwithstanding any general or special law to the contrary, the department
1179 of public utilities shall conduct, publish, and periodically update a report detailing the degree to
1180 which each gas piping system operator adhered to the department's safety standards, reviewing
1181 the efficacy of said standards in protecting the physical health and financial prosperity of the
1182 commonwealth's residents, and analyzing recent advancements made in th theory and practice of
1183 pipeline safety and operation. The report shall include policy recommendations, including, but
1184 not limited to, legislation and regulations, that would enhance the safety of gas piping systems by
1185 utilizing any theoretical or practical advancements in safety analyzed within it. The department
1186 may conduct field audits of gas companies operating in the Commonwealth to ensure compliance
1187 with all applicable statutes and regulations, and shall include the results of any such audits in the
1188 study required under this section or any subsequent updates to said study. The department shall
1189 publish the study no later than 1 year after the effective date of this act and shall publish updates
1190 to the study not less than every 36 months.

1191 Said study shall be submitted to the clerks of the house and senate, as well as to the joint
1192 committee on telecommunications, utilities and energy.

1193 SECTION 100. Section 1A of chapter 164 of the General Laws, as so appearing, is
1194 hereby amended by adding a new subsection:-

1195 (g) Municipalities, including those with environmental justice populations, at high risk
1196 from the effects of climate change may approve 1 or more solar energy projects owned and
1197 operated by an electric or gas distribution company constructing, owning and operating
1198 generation facilities on land owned therein, which is paired, where feasible, with energy storage

1199 facilities designed to improve community climate adaptation and resiliency or contribute to the
1200 commonwealth meeting its carbon emissions limits established in section 3 of chapter 21N.

1201 Prior to project approval under this section, electric and gas distribution companies shall
1202 conduct an outreach program to promote the development of solar energy projects in
1203 environmental justice communities and to create program goals, including but not limited to job
1204 creation, peak demand reduction and system resiliency. Municipalities with environmental
1205 justice populations shall receive a preference for participation in such projects.

1206 For the purposes of this section, a municipality at high risk from the effects of climate
1207 shall mean a city or town that can demonstrate to the department current or future significant
1208 changes to its population, land use or local economy resulting from changes in climate. Nothing
1209 in this section shall have the effect of, overriding, modifying, or terminating any applicable
1210 requirements for local zoning and permitting by a municipality.

1211 Notwithstanding sections 1B to 1H of chapter 164, inclusive, electric and gas distribution
1212 companies may be eligible to assist a municipality at high risk from the effects of climate change
1213 in furthering its climate adaptation and resiliency goals by constructing, owning and operating
1214 solar generation facilities paired, where feasible, with energy storage facilities on land owned by
1215 the electric or gas distribution company within a municipality, including those with
1216 environmental justice communities, at no cost to the municipality, provided that such facilities
1217 may receive department approval for cost recovery. Such company shall not construct, own or
1218 operate new facilities equaling more than 10 per cent of the total installed megawatt capacity of
1219 solar generation facilities in the commonwealth as of July 31, 2020. Projects undertaken on
1220 behalf of a municipality for construction of utility-owned solar facilities shall be exempt from the

1221 prohibition on utility owned generation, subject to review and approval by the department of
1222 public utilities. The department may review municipal petitions for development of utility-owned
1223 solar facilities and may allow cost recovery upon a showing that a site-specific development
1224 would provide environmental or climate change benefits to the community, municipality or to
1225 the commonwealth, or both in combination, warranting a site specific exemption, and that the
1226 costs of the project are reasonable.

1227 Affirmation of support by a municipality shall be presented to the department by an
1228 electric or gas distribution company in any petition for pre-approval of cost recovery for a sola
1229 energy generating facility and energy storage facility, where deemed feasible, and the department
1230 shall determine whether the proposal is consistent with the commonwealth’s energy policies,
1231 contributes to the climate change resiliency of the host municipality and mitigates peak energy
1232 demand. In approving any such proposal, the department shall: (1) provide the criteria applied in
1233 reviewing the proposal; (2) provide the evidence provided in support of the proposal and relied
1234 on by the department in making its decision; and (3) identify the specific contributions to the
1235 commonwealth’s energy policies that will be attributable to the proposed facility and
1236 demonstrate the analytical foundation for the department’s approval of utility owned solar
1237 facilities.

1238 The department may adopt such rules and regulations as may be necessary to implement
1239 this subsection.

1240 SECTION 101. Section 94 of chapter 164 of the General Laws, as so appearing, is hereby
1241 amended by inserting after the word “charge”, in line 54, the following words:- or the impact of
1242 said rate, price or charge on statewide greenhouse gas emissions and on the ability of the

1243 commonwealth to achieve greenhouse gas emission limits and sublimits imposed by statute or
1244 regulation.

1245 SECTION 102. Said section 94 of said chapter 164, as so appearing, is hereby further
1246 amended by inserting after the word “contract”, in line 71, the following words:- , or the
1247 emissions impacts of such contract,

1248 SECTION 103. Section 94A of said chapter 164, as so appearing, is hereby amended by
1249 inserting after the word “review”, in line 17, the following words:- , taking into account the
1250 impact of the contract on statewide greenhouse gas emissions and on the ability of the
1251 commonwealth to achieve greenhouse gas emission limits and sublimits imposed by statute or
1252 regulation.

1253 SECTION 104. The second paragraph of subsection (b) of section 134 of said chapter
1254 164, as so appearing, is hereby amended by striking out the first sentence and inserting in place
1255 thereof the following 3 sentences:-

1256 Notwithstanding any other general or special law to the contrary, a municipality or group
1257 of municipalities with a certified energy plan shall not be prohibited from proposing an energy
1258 plan that contains enhancements that are more specific, detailed or comprehensive or that cover
1259 additional subject areas than those contained in a jointly prepared energy plan submitted in
1260 accordance with section 21 of chapter 25. Enhancements may be funded by any funding source
1261 authorized by subsection (a) of section 19 of said chapter 25. The department shall not withhold
1262 approval of an energy plan submitted under this subsection due to considerations of cost
1263 efficiency or ratepayer impact if such enhancements are cost effective in accordance with the
1264 department’s cost effectiveness screening.

1265 SECTION 105. Section 138 of said chapter 164, as so appearing, is hereby amended by
1266 inserting after the word “less”, in line 37, the following words:- ; provided, however, that a
1267 “Class I net metering facility” of a municipality or other governmental entity may have a
1268 generating capacity of less than or equal to 60 kilowatts per unit.

1269 SECTION 106. Said section 138 of said chapter 164, as so appearing, is hereby further
1270 amended by striking out, in line 120, the figure “II” and inserting in place thereof the following
1271 figures:- I, II.

1272 SECTION 107. Section 139 of chapter 164 of the General Laws, as appearing in the 2018
1273 Official Edition, is hereby amended by striking out in lines 60 through 64, inclusive, the words
1274 “A solar net metering facility may designate customers of the same distribution company to
1275 which the solar net metering facility is interconnected and that are located in the same ISO-NE
1276 load zone to receive such credits in amounts attributed by the solar net metering facility.” and
1277 inserting in place thereof the following words:- A solar net metering facility may designate
1278 customers of any distribution company located in the commonwealth to receive such credits in
1279 amounts attributed by the solar net metering facility.

1280 SECTION 108. Section 139 of chapter 164, as so appearing, is hereby amended by
1281 inserting after subsection (i) the following new subsection:

1282 (i 1/2) A Class I net metering facility greater than 25 kilowatts in nameplate capacity, a
1283 Class II net metering facility or a Class III net metering facility with an executed interconnection
1284 agreement with a distribution company on or after January 1, 2021 shall be exempt from the
1285 aggregate net metering capacity that are not net metering facilities of a municipality or other
1286 government entity under subsection (f), and may net meter and accrue Class I, Class II or Class

1287 III net metering credits if it is generating renewable energy and serves on-site load, other than
1288 parasitic or non-station load; provided, that any credits accrued in excess of its annual electricity
1289 consumption for the period running from April through the following March shall be credited or
1290 paid out for such excess credits at the utility's avoided cost rate.

1291 SECTION 109. Notwithstanding any general or special law to the contrary, the
1292 department of energy resources shall investigate the necessity, benefits and costs of requiring
1293 distribution companies, as defined in section 1 of chapter 164 of the General Laws, to jointly and
1294 competitively conduct additional offshore wind generation solicitations and procurements of up
1295 to approximately 2,800 megawatts of aggregate nameplate capacity, in addition to the
1296 solicitations and procurements required by section 83C of chapter 169 of the acts of 2008, as
1297 amended by chapter 188 of the acts of 2016, and section 21 of chapter 227 of the acts 2018 and
1298 shall require said additional solicitations and procurements by December 31, 2035; provided
1299 further, that the department may require additional solicitations and procurements if it believes
1300 they are necessary to meet emissions reductions requirements of section 4 of Chapter 21N;
1301 provided, however, that for said solicitations and procurements, as outlined in this section, the
1302 department of energy resources may also require distribution companies to jointly and
1303 competitively solicit and procure proposals for offshore wind energy transmission sufficient to
1304 deliver energy generation procured pursuant to this section from designated wind energy areas
1305 for which a federal lease was issued on or after January 1, 2012 that may be developed
1306 independent of such offshore wind energy generation; provided further, that such transmission
1307 service shall be made available for use by more than 1 wind energy generation project and shall
1308 not exceed the generation capacity authorized by this section; provided further, that any selection
1309 of offshore wind energy transmission shall be the most cost-effective mechanism for procuring

1310 reliable, low-cost offshore wind energy transmission service for ratepayers in the
1311 commonwealth.

1312 SECTION 110. Section 11 of chapter 75 of the acts of 2016 is hereby amended by adding
1313 the following 2 subsections:-

1314 (d) For any solar incentive program developed pursuant to this section, the department of
1315 energy resources shall set aside a portion of each capacity block to be allocated to solar tariff
1316 generation units that primarily serve low-income customers, including, but not limited to, low
1317 income solar tariff generation units, low-income property solar tariff generation units and low
1318 income community solar tariff generation units, as defined by the department, respectively. In
1319 implementing the set-aside required by this section, the department shall also maintain solar
1320 incentives that benefit solar tariff generation units primarily serving low-income customers.

1321 (e) In implementing the set-aside required by subsection (d), the department of energy
1322 resources shall hold not less than 3 public hearings in communities with a high proportion of
1323 low-income customers, as defined by the department. The department shall develop and execute
1324 an outreach program to educate and inform low-income customers and residents of low-income
1325 and moderate-income housing about the benefits and savings associated with participation in the
1326 solar incentive programs established pursuant to this section. The department shall ensure that
1327 the outreach program is readily accessible, transparent and user-friendly to all users and potential
1328 users, including residents of communities whose primary language is not English. In developing
1329 an outreach program pursuant to this section, the department shall engage and consult with low
1330 income residents and underserved customers and communities

1331 SECTION 111. (a) The department of public utilities shall establish a future utility grid
1332 commission for the purpose of studying and making recommendations regarding the
1333 establishment of a long-term grid modernization plan to facilitate upgrades to the electric and gas
1334 distribution systems located in the commonwealth, including but not limited to: (i) infrastructure
1335 and system investments necessary to implement the state’s clean energy and climate change
1336 requirements; (ii) clean energy and energy storage deployment targets and incentive programs;
1337 (iii) the state’s clean energy and climate plans and emission reduction requirements set by
1338 chapter 21N of the General Laws; and (iv) transitioning in the commonwealth from
1339 energy derived from fossil fuels to energy derived from clean, non-emitting renewable sources,
1340 in order to reach net zero statewide greenhouse gas emissions by 2050.

1341 (b) The commission shall review and incorporate department findings from the
1342 department’s regulatory processes regarding short to medium-term grid modernization planning,
1343 including utilization of consensus filings and findings related to: (i) cost allocation; (ii) a timeline
1344 enforcement mechanism; (iii) interconnection of renewable energy and energy storage systems
1345 and a standard interconnection process; (iv) affected system operator studies; (v) state and
1346 federal jurisdiction governing the electric distribution and transmission system; (vi) the
1347 management of high volumes of applications to incentive programs for distributed energy
1348 generation; (vii) the interconnection process for distributed generation facilities interconnecting
1349 to the distribution and transmission system; (viii) and advanced metering requirements.

1350 (c) The commission shall examine whether the department should implement a system
1351 planning process for electric and gas distribution systems that shall: (i) create a technical
1352 foundation to understand the physical and electrical state of current grid infrastructure including

1353 existing and planned interconnection projects as well as future scenarios; (ii) analyze the
1354 evaluation and approval process for infrastructure investment proposals from distribution
1355 companies that meet the department's requirements to maintain the safety and reliability of the
1356 distribution system, minimize costs to ratepayers, and comply with the state's clean energy and
1357 climate change requirements outlined in subsection (a); (iii) determine a method for dispute
1358 resolution for interconnecting distributed generation facilities to the electric distribution system
1359 conducted by the department; (iv) determine an appropriate cost recovery mechanism for electric
1360 and gas distribution companies to deploy necessary upgrades approved by the department; (v)
1361 determine an appropriate penalty structure that applies to the interconnection process to ensure
1362 the timely deployment of distributed generation facilities; and (vi) examine opportunities to
1363 increase deployment of energy storage systems that facilitate the state's ability to comply with its
1364 clean energy and climate change requirements.

1365 (d) The commission shall consist of 21 members or their designees: the secretary of
1366 energy and environmental affairs or a designee, who shall serve as chair; the chair of the
1367 department of public utilities or a designee; the commissioner of the department of energy
1368 resources or a designee; the commissioner of the department of environmental protection or a
1369 designee; the chief executive officer of the Massachusetts clean energy technology center
1370 established pursuant to section 2 of chapter 23J of the General Laws or a designee; the attorney
1371 general in the role of the commonwealth's ratepayer advocate or a designee; and 15 members
1372 who shall be appointed by the chair: 1 of whom shall be a representative from the distributed
1373 energy generation industry; 1 of whom shall be a representative from the energy storage
1374 industry; 1 of whom shall be a representative from the offshore wind electric generation industry;
1375 1 of whom shall be a representative from a higher education institution with expertise in utility

1376 engineering; 3 of whom shall be a representative from each of the electric distribution companies
1377 located in the commonwealth; 1 of whom shall be a municipal official to be nominated by the
1378 Massachusetts Municipal Association, Inc.; 3 of whom shall be representatives from
1379 environmental organizations; 1 of whom shall be a representative from the business community;
1380 1 of whom shall be a representative from an organization that serves low-income ratepayers; 1 of
1381 whom shall be a representative from a regional planning agency; and 1 of whom shall be a
1382 representative from the executive office of energy and environmental affairs' global warming
1383 solutions act implementation advisory committee. The commission may request from all state
1384 agencies such information and assistance as the commission may require and may retain
1385 consultants as necessary.

1386 (e) The commission shall convene its first meeting on or before March 31, 2021. The
1387 commission shall meet regularly and provide at least 3 opportunities for public comment in
1388 different geographical areas of the state. The commission shall file its recommendations,
1389 including drafts of legislation, with the clerks of the house of representatives and the senate and
1390 with the chairs of the joint committee on telecommunications, utilities and energy not later than
1391 November 1, 2021.

1392 SECTION 112. There shall be a land use commission to develop recommendations on
1393 land use restrictions within the Solar Massachusetts Renewable Target (SMART) Program. The
1394 commission shall develop recommendations on developing land use policies to encourage
1395 conservation of open space, farm and forestlands in a responsible manner. The commission shall
1396 review the negative impacts of the SMART program on the development of solar facilities in the
1397 commonwealth and consider the economic viability of farmlands, forest management practices
1398 and the balance of farm preservation through utilization of solar as an economic tool. The

1399 commission shall also consider the social value of community solar projects and best practices
1400 for carbon sequestration.

1401 The commission shall consist of 13 members appointed by the governor; the
1402 commissioner of the department of energy resources or a designee, who shall serve as chair; the
1403 executive director of the Massachusetts Municipal Association or a designee; the executive
1404 director of the Massachusetts Farm Bureau or a designee; the executive director of the
1405 Massachusetts Forest Alliance or a designee; the executive director of the Massachusetts
1406 Cranberry Growers Association or a designee; 1 member of an environmental organization; 1
1407 member of a conservation group; 1 member from a business that develops solar facilities, 1
1408 member of the community shared solar group; 1 member who is an owner of an active farm; 1
1409 member with experience working with low-income communities on community shared solar
1410 programs, 1 member of a local or regional land trust organization, and 1 member from the
1411 Natural Heritage and Endangered Species Program.

1412 The department of energy resources shall provide assistance and shall staff the
1413 commission meetings. The commission members shall serve without compensation. The
1414 commission shall file a report with the house and senate committees on ways and means and the
1415 joint committee on telecommunications, utilities and energy not later than July 1, 2021.

1416 SECTION 113. The department of public utilities may, upon application of a gas
1417 company, as defined in section 1 of chapter 164 of the General Laws, authorize 1 or more pilot
1418 projects for the development of utility-scale renewable thermal energy, including non-carbon
1419 emitting technologies for energy savings and energy storage. Such application shall be filed with
1420 the department on or before January 1, 2023. The department may approve recovery of costs for

1421 pilot projects situated in the commonwealth that demonstrate the costs and benefits of: (i) utility
1422 scale renewable thermal energy sources, systems or technologies capable of substituting for
1423 fossil-based natural gas; or (ii) utility-scale renewable thermal energy replacements for, or
1424 alternative uses of, infrastructure constructed originally to generate, transmit or distribute fossil
1425 based natural gas; provided, however, that such substitute renewable thermal energy sources,
1426 systems or technologies, and such replacements or alternative uses, have a reasonable likelihood
1427 of facilitating substantial reductions in greenhouse gas emissions that satisfy the mandates of
1428 greenhouse gas reductions set forth in chapter 21N of the General Laws; and provided further,
1429 that the pilots shall not include the blending of other fuels with fossil-based natural gas. The
1430 department may approve a pilot project in a gas system enhancement plan as replacement for
1431 leak prone infrastructure submitted pursuant to section 145 of chapter 164. The department may
1432 permit a gas company to bill for thermal energy developed by a pilot project. The department
1433 shall ensure transparency and validity of the outcomes of the pilot projects through a third-party
1434 evaluation and through reports by the department of energy resources. In determining whether to
1435 approve a pilot project, the department shall consider the reasonableness of the size, scope and
1436 scale of the pilot project and related budget and whether the benefits of the proposed pilot justify
1437 the proposed cost to participating and non-participating customers; provided, however, that the
1438 calculation of benefits shall include calculations of the social value of greenhouse gas emissions
1439 reductions. The department may promulgate rules or regulations to implement this section.

1440 SECTION 114. The department of energy resources, in consultation with the
1441 Massachusetts clean energy center and the carbon reduction research center, shall study the
1442 feasibility of optimizing the deployment and utilization of both new and existing long-duration
1443 energy storage systems in the commonwealth capable of absorbing energy, storing it for a period

1444 of time and thereafter dispatching the energy for a minimum period of five hours or greater. The
1445 goal of said systems would be to a) enhance the reliable delivery of electricity to Massachusetts
1446 consumers; b) improve the reliability and integration of intermittent renewable energy or clean
1447 energy generation; c) reduce carbon emissions; and d) minimize ratepayer costs. The study shall
1448 determine the commercial availability of said systems, including performance under frequent
1449 deployment, barriers to deployment or utilization, and incentives that could facilitate their
1450 deployment or utilization. The department of energy resources shall submit recommendations to
1451 the clerks of the house of representatives and senate and to the house and senate chairs of the
1452 joint committee on telecommunications, utilities, and energy no later than March 1, 2021.

1453 SECTION 115. The department of energy resources shall study the feasibility of ferry
1454 operators located in the commonwealth to convert vessel fleets to electric and hybrid electric
1455 ferries by 2050 to comply with the requirements of chapter 21N of the General Laws. The study
1456 shall investigate: (i) the technology necessary to accomplish the transition to electric or hybrid
1457 electric ferry service; (ii) the availability of such technology; (iii) costs and benefits of making
1458 such transition, the analysis shall include but not be limited to the cost of negative externalities
1459 associated with greenhouse gas emissions; (iv) the feasibility of ferry operators to make such
1460 transition and any operational or infrastructure limitations to such transition; (v) the availability
1461 of technical assistance or other private or public programs to facilitate the transition to electric or
1462 hybrid electric ferry service and (vi) the operations of electric ferries already in service in Europe
1463 and elsewhere in the world. The department shall make recommendations of a timeline for
1464 Massachusetts ferry operators to transition to electric fleets to comply with the state emission
1465 reduction goal of net zero greenhouse gas emissions by 2050. The department shall file its

1466 recommendations with the clerks of the house of representatives and the senate and the chairs of
1467 the joint committee on telecommunications, utilities and energy not later than July 1, 2021.

1468 SECTION 116. Notwithstanding any general or special law to the contrary, the
1469 department of energy resources and department of public utilities shall amend any rules,
1470 regulations, and tariffs to permit the owner of any new solar facility, including any solar energy
1471 generating source, that qualifies for programs pursuant to section 11F of chapter 25A of the
1472 General Laws and application regulations that achieves commercial operation on or after January
1473 1, 2021 to: (i) receive credits for any electricity generated by a solar facility that exceeds the
1474 owner's usage during a billing period, with such credits to be credited to a solar facility owner's
1475 customer account with the relevant distribution company, and carried forward from month to
1476 month; (ii) designate customers of the same distribution company, regardless of which ISO-NE
1477 load zone the customers are located in, to receive such credits in amounts attributed by the solar
1478 facility, with such credits applicable to any portion or all of a designated customer's electric bill;
1479 and (iii) direct the distribution company to purchase all or a portion of any credits produced by a
1480 solar facility at the rates provided for in the applicable statute, regulation, or tariff without
1481 discount or penalty. This section shall not apply to solar net metering facilities.

1482 SECTION 117. The Massachusetts clean energy technology center shall administer a heat
1483 pump market development program to fund and offer training, which shall include, but not be
1484 limited to, heating oil dealers, for the purpose of expanding markets for space and water heating
1485 using efficient heat pump technology. The Massachusetts clean energy technology center may
1486 draw upon the Massachusetts Renewable Energy Trust Fund for such purpose if sufficient funds
1487 are available. The Massachusetts clean energy technology center may stop offering such program
1488 after January 1, 2026.

1489 SECTION 118. Not later than December 31, 2025, the secretary of energy and
1490 environmental affairs shall publish a comprehensive energy plan, as required under Executive
1491 Order 569. The plan may be prepared in accordance with other requirements of this act, shall be
1492 based upon reasonable projections and shall include: (i) the commonwealth’s energy demands
1493 for electricity, transportation and thermal conditioning; and (ii) strategies for meeting these
1494 demands in a regional context. The plan shall prioritize meeting energy demand through
1495 conservation, energy efficiency and other demand-reduction resources in a manner that
1496 contributes to the commonwealth meeting the limits and sublimits established pursuant to
1497 chapter 21N of the General Laws.

1498 SECTION 119. Section 16 of chapter 25A of the General Laws, as appearing in the 2018
1499 official Edition, is hereby amended by inserting after the word “section”, in line 1, the following
1500 words:- and section 18.

1501 SECTION 120. Subsection (a) of said section 16 of said chapter 25A, as so appearing, is
1502 hereby amended by adding the following definition:-

1503 “Zero-emission vehicle”, a motor vehicle that produces no engine exhaust carbon
1504 emissions.

1505 SECTION 121. Said chapter 25A is hereby further amended by adding the following
1506 section:-

1507 Section 18. (a) The commissioner shall, subject to appropriation, establish a program to
1508 provide rebates or other financial incentives to consumers who purchase or lease and register and
1509 insure in the commonwealth a zero-emission vehicle. Vehicles qualifying for rebates under this
1510 section shall: (i) be manufactured primarily for use on public streets, roads and highways; (ii)

1511 have an engine that is not modified from the original manufacturer's specifications; and (iii) have
1512 been acquired for use or lease by the consumer and not for resale.

1513 (b) A rebate under this section shall not be less than \$1,500 per vehicle; provided,
1514 however, that no rebate shall be available for a vehicle with a sales price that exceeds \$50,000.

1515 (c) The commissioner may promulgate regulations to administer the program established
1516 under this section. At least once per calendar year, the commissioner shall provide outreach to
1517 underserved consumers and consumers in communities with a high percentage of low-income
1518 households with information about the zero-emission vehicle incentive program established
1519 under this section.

1520 (d) The commissioner shall publish and regularly update data regarding program usage
1521 including, but not limited to: (i) the number and amount of rebates or incentives provided each
1522 month; (ii) the make, model and type of vehicle for which the rebate or incentive was issued; (iii)
1523 the zip code in which the vehicle is registered; and (iv) the estimated total greenhouse gas
1524 emissions reductions achieved from the rebate or incentive issued.

1525 SECTION 122. Section 7A of chapter 90 of the General Laws, as appearing in the 2018
1526 Official Edition, is hereby amended by inserting after the fifth paragraph the following
1527 paragraph:-

1528 Not later than January 1, 2022, and annually thereafter, the registry shall issue to a
1529 municipality, upon request, the following aggregate data for the previous 12 months: (i) the
1530 number of vehicles registered in said municipality, including the total numbers of gas-powered
1531 vehicles, hybrid vehicles and zero-emission vehicles; and (ii) the average number of miles driven

1532 by such gas-powered, hybrid and zero-emission vehicles, respectively. The data shall be
1533 protective of privacy information.

1534 SECTION 123. Section 94 of chapter 143 of the General Laws, as so appearing, is hereby
1535 amended by adding the following 2 subsections:-

1536 (s) In consultation with the department of energy resources, to adopt and fully integrate
1537 into the state building code requirements that new construction of commercial and residential
1538 buildings with not less than 10 parking spaces, as well as major reconstruction, renovation and
1539 repair of such buildings, include building electrical service and conduit systems sufficient to
1540 support the minimum number of zero-emission vehicle parking spaces; provided, however, that
1541 the minimum number of zero-emission vehicle parking spaces shall be at least 1 parking space or
1542 not less than 5 per cent of the total number of parking spaces, whichever is greater. For the
1543 purposes of this section, “zero-emission vehicle” shall mean a motor vehicle that produces no
1544 engine exhaust emissions.

1545 (t) In consultation with the department of energy resources, to adopt and fully integrate
1546 into the state building code requirements that new construction of parking facilities with not less
1547 than 10 parking spaces, as well as major reconstruction, renovation and repair of such facilities,
1548 include building electrical service and conduit systems sufficient to support the minimum
1549 number of zero-emission vehicle parking spaces; provided, however, that the minimum number
1550 of zero-emission vehicle parking spaces shall be at least 1 parking space or not less than 5 per
1551 cent of the total number of parking spaces, whichever is greater.

1552 SECTION 124. Section 3 of chapter 448 of the acts of 2016 is hereby amended by
1553 striking out, in lines 3 and 4, the words “may include requirements for electric vehicle charging

1554 for residential and appropriate commercial” and inserting in place thereof the following words:-
1555 shall include requirements for electric vehicle charging for appropriate residential and
1556 commercial.

1557 SECTION 125. Said chapter 448 is hereby further amended by inserting after section 6
1558 the following 2 sections:-

1559 Section 6A. (a) The department of energy resources, in consultation with the
1560 Massachusetts Department of Transportation and the executive office for administration and
1561 finance, shall create and maintain an inventory of motor vehicles owned or leased by the
1562 commonwealth. The inventory shall include a critical replacement list consisting of non-zero
1563 emission vehicles that, if the non-zero emission vehicle needed to be replaced, replacement with
1564 a zero-emission vehicle is operationally feasible and results in a positive lifecycle cost
1565 benefit. The critical replacement list shall include, but not be limited to, vehicles that are
1566 approaching the end of their useful lives or are otherwise reasonable candidates for replacement
1567 and whose replacement presents a high or medium priority opportunity for near-term
1568 electrification as indicated in the study completed pursuant to section 6 and published on
1569 December 22, 2017 or any successive analysis or study required by law or commissioned by the
1570 department of energy resources or Massachusetts Department of Transportation. Not less than
1571 every 3 years, the department of energy resources, in consultation with the Massachusetts
1572 Department of Transportation, shall revise and update the analysis of opportunities for near-term
1573 electrification of vehicles owned, purchased or leased by the commonwealth. For the purposes of
1574 this section, “commonwealth” shall include, but not be limited to, the Massachusetts Bay
1575 Transportation Authority, Massachusetts Port Authority and Massachusetts Water Resources
1576 Authority, but shall not include municipalities, regional school districts and regional transit

1577 authorities authorized pursuant to chapter 161B of the General Laws. Nothing in this section
1578 shall prevent or limit the commonwealth from purchasing a zero-emission vehicle for a vehicle
1579 or purpose not identified on the critical replacement list.

1580 (b) Not later than January 1, 2024, each purchase or lease by the commonwealth of a
1581 motor vehicle identified on the critical replacement list under subsection (a) by the
1582 commonwealth, including, but not limited to, the Massachusetts Port Authority and
1583 Massachusetts Water Resources Authority, but not including the Massachusetts Bay
1584 Transportation Authority, municipalities, regional school districts and regional transit authorities
1585 authorized pursuant to chapter 161B of the General Laws, shall be a zero-emission vehicle. The
1586 commonwealth shall prioritize the deployment of zero-emission vehicles in underserved
1587 communities and communities with a high percentage of low-income households.

1588 (c) Beginning January 1, 2030, each purchase or lease of a passenger bus by the
1589 Massachusetts Bay Transportation Authority shall be a zero-emission vehicle; provided,
1590 however, that the Massachusetts Bay Transportation Authority shall seek to replace non-zero
1591 emission passenger buses with zero-emission passenger buses before January 1, 2030.

1592 (d) The Massachusetts Bay Transportation Authority shall operate exclusively zero
1593 emission passenger buses not later than December 31, 2040; provided, however, that a non-zero
1594 emission passenger bus purchased before January 1, 2030 may be operated after December 31,
1595 2040 if its operation is strictly necessary to maintain service levels and prompt plans are in place
1596 to replace the bus with a zero-emission passenger bus.

1597 (e) The secretary of transportation and the Massachusetts Bay Transportation Authority,
1598 in consultation with the executive office of energy and environmental affairs, shall develop and

1599 complete a plan to operate exclusively zero-emission passenger buses not later than December
1600 31, 2040. With respect to early implementation, the plan shall mandate that a majority of buses
1601 purchased or leased serve routes serving low-income households and households in underserved
1602 communities. Not later than December 31, 2021, the plan shall be filed with the clerks of the
1603 senate and house of representatives and the joint committee on transportation and be made
1604 publicly available on the Massachusetts Department of Transportation’s website.

1605 Every 5 years until the Massachusetts Bay Transportation Authority operates exclusively
1606 zero-emission passenger buses, the secretary shall submit to the clerks of the senate and house of
1607 representatives and the joint committee on transportation and post on the Massachusetts
1608 Department of Transportation’s website updated progress reports on the implementation of this
1609 subsection, including, but not limited to, the number of zero-emission passenger buses operated,
1610 the number of non-zero emission passenger buses operated, the number of zero-emission
1611 passenger buses operated on routes serving low-income households and households in
1612 underserved communities, the number of non-zero emission passenger buses operated on routes
1613 serving low-income households and households in underserved communities, barriers to
1614 increased numbers of zero-emission passenger buses, if any, and recommended legislative or
1615 regulatory action needed to address barriers or otherwise promote compliance with this section
1616 and the cost of simultaneously operating zero-emission passenger buses, including, but not
1617 limited to, staffing, training, maintenance and other mechanical equipment, facilities, financing
1618 and premiums attributable to the purchase of zero-emission passenger buses. For the purposes of
1619 this section, “zero-emission vehicle” shall mean a motor vehicle that produces no engine exhaust
1620 emissions. For the purposes of this subsection, “low-income” shall have the same meaning as
1621 defined under section 1 of chapter 40T of the General Laws.

1622 (f) Not later than March 1, 2021, the Massachusetts Department of Transportation, in
1623 consultation with the department of energy resources, shall develop recommendations for the
1624 siting of zero-emission vehicle charging facilities to serve state-owned or leased zero-emission
1625 vehicles and zero-emission passenger buses across the commonwealth. The recommendations
1626 shall consider locations across the commonwealth, including within municipal light plant
1627 territories, and shall consider the benefit and potential cost savings to ratepayers for potential
1628 locations.

1629 Section 6B. The department of energy resources, in consultation with the Massachusetts
1630 Department of Transportation, shall conduct, publish and periodically update a study of the
1631 opportunities for near-term electrification of vehicles owned or leased by municipalities, regional
1632 school districts and regional transit authorities authorized pursuant to chapter 161B of the
1633 General Laws. The study shall include, but not be limited to: (i) an analysis of the cost of vehicle
1634 electrification, associated equipment and supplies and possible methods of meeting such costs,
1635 including, but not limited to, state financial support, federal financial support and procurements
1636 by regional planning agencies and other entities made up of local and regional governments; (ii)
1637 recommendations for the allowance within the fleets of non-electric emergency vehicles; and (iii)
1638 opportunities to pair electrification with renewable energy resources, energy storage or demand
1639 response technology and policy. The department of energy resources shall publish the study on
1640 its website not later than 18 months after the effective date of this section and shall thereafter
1641 publish revisions of the study on its website not less than every 3 years. The study and
1642 subsequent revisions shall be submitted to the clerks of the senate and house of representatives,
1643 the joint committee on transportation and the joint committee on telecommunications, utilities
1644 and energy and posted on the department of energy resource's website.

1645 SECTION 126. Notwithstanding any general or special law to the contrary, not later than
1646 1 year after the effective date of this act, the department of energy resources shall publish a guide
1647 to assist cities and towns in developing processes and policies to expand electric vehicle parking
1648 in municipally-owned parking spaces and lots including, but not limited to, an analysis or guide
1649 to pricing incentives for parking for zero-emission vehicles and reserved parking for zero
1650 emission vehicles. The guide shall include a review of similar programs established in other
1651 states. For the purposes of this section, “zero-emission vehicle” shall mean a motor vehicle that
1652 produces no engine exhaust emissions.

1653 SECTION 127. The Massachusetts Bay Transportation Authority, in consultation with
1654 the executive office of energy and environmental affairs, shall develop a plan to reduce the
1655 carbon emissions of its commuter rail and light rail operations, including a numerical value of
1656 the plan’s contribution to meeting statewide greenhouse gas emissions limits and sublimits set by
1657 statute or regulation. The plan shall include: (i) an analysis of the cost and benefits of meeting
1658 the statewide greenhouse gas emissions limits and sublimits; (ii) energy conservation
1659 methodologies, including, but not limited to, regenerative braking, flywheel, battery or capacitor
1660 storage and the use of alternative methods for generating electricity; (iii) evaluation of increased
1661 electricity demands resulting from steps taken by the authority to reduce greenhouse gas
1662 emissions; (iv) feasibility studies, where necessary; and (v) a recommended schedule for
1663 implementation.

1664 The authority shall post its plan on the authority’s website not later than 6 months from
1665 the effective date of this act.

1666 SECTION 128. For the purposes of this section, an “independent retirement system” shall
1667 mean any Massachusetts public pension system under the oversight, monitoring, and regulation
1668 of the public employee retirement administration commission, except the state employees
1669 retirement system, the state teachers’ retirement system, and the State-Boston retirement system
1670 in so far as the assets attributable to teachers who are members of that system; and a “fossil fuel
1671 company” shall mean a company identified by a Global Industry Classification Standard code in
1672 one of the following sectors: (1) coal and consumable fuels; (2) integrated oil and gas; or (3) oil
1673 and gas exploration and production.

1674 Notwithstanding any general or special law to the contrary, any independent retirement
1675 system may, in accordance with the procurement process under section 23B of chapter 32 of the
1676 General Laws, divest in whole or in part from any investment in fossil fuel companies, the asset
1677 of which remain under the direct control and management of the independent retirement system,
1678 and are not separately managed or invested by the Pension Reserves Investment Management
1679 Board. In accordance with this section, the board of an independent retirement system may, after
1680 following the procurement process under said section 23B of said chapter 32, invest in index
1681 funds or other investment vehicles that may not include fossil fuel companies.

1682 SECTION 129. Notwithstanding any general or special law to the contrary, with respect
1683 to actions taken in compliance with this act, the public fund shall be exempt from any conflicting
1684 statutory or common law obligations, including any such obligations with respect to choice of
1685 asset managers, investment funds or investments for the public fund’s securities portfolios and
1686 all good faith determinations regarding companies as required by this act

1687 SECTION 130. Sections 128 and 129 shall take effect upon passage.

1688 SECTION 131. Section 16 of chapter 298 of the acts of 2008 is hereby amended by 673
1689 striking out the words “, and shall expire on December 31, 2020”.

1690 SECTION 132. The General Laws are hereby amended by inserting after chapter 21O the
1691 following chapter:-

1692 Chapter 21Q.

1693 Climate Policy Commission.

1694 Section 1. As used in this chapter, the following terms shall have the following meanings
1695 unless the context clearly requires otherwise:

1696 “Commission”, the climate policy commission established pursuant to section 2.

1697 “Greenhouse gas emissions”, emission of a greenhouse gas as defined in section 1 of
1698 chapter 21N.

1699 “State agency”, a state agency as defined in section 1 of chapter 29.

1700 Section 2. (a) There shall be established a state agency known as the climate policy
1701 commission. The commission shall be an independent public entity not subject to the supervision
1702 and control of any other executive office, department, commission, board, bureau, agency or
1703 political subdivision of the commonwealth.

1704 (b) There shall be a board, with duties and powers established pursuant to this chapter,
1705 that shall govern the commission and that shall consist of: the secretary of energy and
1706 environmental affairs, who shall serve ex officio; 2 members appointed by the attorney general
1707 who shall have expertise in energy economics, public health, climate science or statistics, 1 of

1708 whom shall be selected from a list of not less than 3 individuals nominated by the energy
1709 efficiency advisory council under section 22 of chapter 25; and 6 members appointed by the
1710 governor, 4 of whom shall be selected from a list comprised of 1 individual nominated by each
1711 president or chancellor of an institution of higher education in the commonwealth classified by
1712 the Carnegie Classification System as a doctorate-granting university with very high research
1713 activity, 1 of whom shall have expertise in energy economics, public health, climate science or
1714 statistics and 1 of whom shall be selected from a list of not less than 3 individuals nominated by
1715 the greenhouse gas emissions reduction measures advisory committee established under section
1716 8 of chapter 21N. All persons appointed to the commission shall be selected without regard to
1717 political affiliation and solely on the basis of the qualifications and experience that the
1718 appointing authorities determine are necessary to fulfilling the mission of the commission. A
1719 vacancy occurring on the commission shall be filled within 90 days by the original appointing
1720 authority. A person appointed to fill a vacancy shall serve initially only for the unexpired term.
1721 Members of the commission shall be eligible for reappointment. The commission shall annually
1722 elect 1 of its members to serve as chair and 1 member to serve as vice-chair.

1723 Members shall serve without pay, but shall be reimbursed for actual expenses necessarily
1724 incurred in the performance of their duties. No appointed member shall hold full or part-time
1725 employment in the executive or legislative branch of state government. Each member of the
1726 commission shall be a resident of the commonwealth.

1727 (c) Any action of the commission may take effect immediately and need not be published
1728 or posted unless otherwise provided by law. Meetings of the commission shall be subject to
1729 sections 18 to 25, inclusive, of chapter 30A; provided, however, that said sections 18 to 25,
1730 inclusive, of said chapter 30A shall not apply to any meeting of members of the commission

1731 serving ex officio in the exercise of their duties as officers of the commonwealth if no matter
1732 relating to the official business of the commission are discussed and decided at the meeting. The
1733 commission shall be subject to all other provisions of said chapter 30A and records pertaining to
1734 the administration of the commission shall be subject to section 42 of chapter 30 and section 10
1735 of chapter 66. All moneys of the commission shall be considered to be public funds for purposes
1736 of chapter 12A. Except as otherwise provided in this section, the operations of the commission
1737 shall be subject to chapter 268A and chapter 268B.

1738 The commission shall not be required to obtain the approval of any officer or employee
1739 of any executive agency in connection with the collection or analysis of any information. The
1740 commission shall not be required to obtain the approval of any officer or employee of any
1741 executive agency with respect to the substance of any reports that the commission has prepared
1742 under this chapter before publication.

1743 (d) The commission shall appoint an executive director by a majority vote. The executive
1744 director shall be selected without regard to political affiliation and solely on the basis of the
1745 qualifications and experience that the commission determines necessary to fulfill the mission of
1746 the commission. The executive director shall supervise the administrative affairs and general
1747 management and operations of the commission and also serve as secretary of the commission, ex
1748 officio. The executive director shall receive a salary commensurate with the duties of the office.

1749 The executive director may, with the approval of the commission, appoint other officers
1750 and employees of the commission necessary to the functioning of the commission.

1751 The executive director shall not be required to obtain the approval of any other executive
1752 agency in connection with appointment of employees. Sections 9A, 45, 46 and 46C of chapter 30,

1753 chapter 31 and chapter 150E shall not apply to the executive director of the commission.
1754 Sections 45, 46 and 46C of chapter 30 shall not apply to any employee of the commission. The
1755 executive director may establish personnel regulations for the officers and employees of the
1756 commission. Annually, not later than the first Wednesday in February, the executive director
1757 shall file a personnel and operations report with the clerks of the senate and house of
1758 representatives and the senate and house committees on ways and means. The report shall
1759 contain the job classifications, duties and salary of each officer and employee within the
1760 commission, personnel regulations applicable to the officers and employees and the revenue and
1761 expenditures of the commission. The executive director shall file amendments to the report with
1762 the clerks of the senate and house of representatives and the senate and house committees on
1763 ways and means when any such amendment becomes effective.

1764 If the position of executive director is vacant, a successor shall be appointed in the same
1765 manner as the original appointment for the unexpired term. The executive director shall serve for
1766 a term of 5 years. No person shall be appointed as the executive director for more than
1767 consecutive 5-year terms.

1768 The commission may remove the executive director from office, for cause, by a majority
1769 vote. The reasons for removal of the executive director shall be stated in writing and shall
1770 include the basis for such removal.

1771 The executive director shall, with the approval of the commission: (i) plan, direct,
1772 coordinate and execute administrative functions in conformity with the policies and directives of
1773 the commission; (ii) employ professional and clerical staff as necessary; (iii) report to the
1774 commission on all operations under their control and supervision; (iv) prepare an annual budget

1775 and manage the administrative expenses of the commission; and (v) undertake any other
1776 activities necessary to implement the powers and duties under this chapter.

1777 The commission may approve the use of funds from receipt of up to 2 per cent, not to
1778 exceed \$5,000,000, of any monies collected by the commonwealth from market-based
1779 compliance mechanisms used to address greenhouse gas emissions, including, but not limited to,
1780 the regional greenhouse gas initiative established under section 22 of chapter 21A, to support the
1781 annual budget of the commission, in addition to funds from any other source and any funds
1782 appropriated therefor by the general court. The commission shall not be required to obtain the
1783 approval of another executive agency in connection with the development and administration of
1784 its annual budget.

1785 The commission shall adopt and amend rules and regulations for the administration of its
1786 duties and powers and to effectuate this chapter pursuant to chapter 30A.

1787 Section 3. The commission shall be responsible for tracking and assessing public and
1788 private sector progress, or lack thereof, towards meeting any and all limits, sublimits, goals and
1789 milestones set by statute or regulation with respect to greenhouse gas emissions and reductions
1790 thereto and facilitating such progress.

1791 The focus of the commission shall be comprehensive and economy-wide, including, but
1792 not limited to, the specific sectors of electric power, transportation, commercial and industrial
1793 heating and cooling, residential heating and cooling, industrial processes, solid waste, agriculture
1794 and natural gas transmission, distribution and service.

1795 The commission shall: (i) assess, comment and issue recommendations on the content,
1796 design, management and likely effectiveness of specific policies, programs and initiatives

1797 proposed or undertaken to reduce or avoid greenhouse gas emissions or substitute non-emitting
1798 energy sources;

1799 (ii) assess, comment and issue recommendations on any roadmap, plan, policy, program,
1800 initiative, regulation, law or certification issued, proposed, prepared, noticed, undertaken or
1801 completed by the commonwealth or any of its political subdivisions with respect to matters
1802 within the purview of the commission, including the implications for, and risks to, underserved
1803 communities and communities with a high percentage of low-income households, populations
1804 and regions of the commonwealth, together with a summary and review of past actions taken to
1805 protect, mitigate and, where feasible, improve the condition of low-income and moderate-income
1806 persons;

1807 (iii) monitor the adoption of the best available technology and the best standards and
1808 practices for reducing greenhouse gas emissions or substituting non-emitting energy sources;

1809 (iv) conduct hearings and undertake inquiries;

1810 (v) make recommendations to state agencies with respect to changes in an agency's data
1811 collection practices or scope;

1812 (vi) review all certificates of compliance issued by the secretary of energy and
1813 environmental affairs under section 4 of chapter 21N or by the department of public utilities
1814 under section 21 of chapter 25;

1815 (vii) meet at least annually with the advisory council established under section 7;

1816 (viii) review the comprehensive reports prepared under section 18 of chapter 25A and
1817 recommend actions to reduce energy consumption and greenhouse gas emissions in buildings
1818 subject to said section; and

1819 (ix) gather, serve as a central repository for and disseminate data and analysis to the
1820 public and policymakers from any and all sources that the commission deems relevant to
1821 carrying out its charge.

1822 Section 4. (a) The commission shall hold not less than 3 public hearings in
1823 geographically diverse locations on each certification filed under section 4 of chapter 21N, not
1824 less than 2 of which shall be held in underserved communities and communities with a high
1825 percentage of low-income households.

1826 (b) Not later than 60 days after the department of public utilities issues a certificate of
1827 compliance under section 21 of chapter 25, the commission shall hold a public hearing
1828 examining the degree to which the activities undertaken pursuant to each plan contributed
1829 to
1830 meeting statewide greenhouse gas emission limits imposed by statute or regulation.

1831 For each public hearing, the commission may require witnesses and testimony from
1832 stakeholders, as deemed appropriate by the commission.

1833 Section 5. The commission shall periodically report to the governor, the senate president,
1834 the speaker of the house of representatives, the senate and house committees on ways and means,
1835 the senate and house committees on global warming and climate change, the joint committee on

1836 telecommunications, utilities and energy and the joint committee on environment, natural
1837 resources and agriculture on the matters within its purview, including, but not limited to, the
1838 commonwealth's progress towards meeting any and all limits, sublimits, goals and milestones set
1839 by statute or regulation with respect to greenhouse gas emissions and the reduction of
1840 greenhouse gas emissions; provided, however, that the commission shall report not less than
1841 twice a year. The reports shall be public and shall be posted on the commission's website.

1842 Section 6. The commission shall have the authority to examine, retain and publish all
1843 documents and data produced, collected or kept by any state agency that the commission deems
1844 relevant to carrying out its charge; provided, however, that a document that a state agency deems
1845 not to be a public record under section 3 of chapter 66 shall remain not a public record under the
1846 control of the commission.

1847 Section 7. There shall be an advisory council to the commission. The advisory council
1848 shall provide advice and input on the overall operation and policy of the commission. The
1849 council shall be appointed by the governor and comprised of members representing: (i)
1850 environmental protection; (ii) low-income and moderate-income population advocacy; (iii)
1851 persons of less than 18 years of age; (iv) persons from communities disproportionately impacted
1852 by climate change; (v) employees of small business in the green energy sector; (vi) electric
1853 power generation and distribution; (vii) transportation; (viii) the distinguishing characteristics
1854 and vulnerabilities of rural, suburban and urban households; (ix) farming; (x) consumer
1855 protection; (xi) housing; (xii) commercial development; (xiii) industrial and manufacturing; (xiv)
1856 sectors that may displace workers through emission reductions efforts and advancements in
1857 green technology; (xv) transportation; (xvi) land use; and (xvii) local government.

1858 SECTION 133. (a) It shall be the goal of the commonwealth to meet 100 per cent of
1859 Massachusetts' energy needs with renewable energy by 2035, including the energy consumed for
1860 electricity, heating and cooling, transportation, agricultural uses, industrial uses, and all other
1861 uses by all residents, institutions, businesses, state and municipal agencies, and other entities
1862 operating within its borders.

1863 (b) It shall be the goal of the commonwealth to obtain 100 per cent of the electricity
1864 consumed by all residents, institutions, businesses, state and municipal agencies, and other
1865 entities operating within its borders from renewable energy sources by 2035.

1866 (c) In meeting these goals, the commonwealth and its agencies shall prioritize (1) models
1867 for local and community ownership of renewable energy generation, (2) sources of renewable
1868 energy that are located in Massachusetts or elsewhere in New England, (3) sources of renewable
1869 energy that represent additional renewable generation capacity added to the grid, (4) non
1870 emitting sources of renewable energy, (5) reducing energy consumption through efficiency
1871 measures to the greatest extent practicable. In all of its plans to achieve 100 percent renewable
1872 energy, the commonwealth and its agencies shall prioritize bringing direct health and financial
1873 benefits to environmental justice communities.

1874 SECTION 134. (a) In order to integrate the goal of 100 per cent renewable energy
1875 throughout state government operations, the secretary shall establish an administrative council
1876 for the clean energy transition not later than 90 days from the passage of this act.

1877 (b) The council shall be chaired by the secretary or the secretary's designee; and shall
1878 include a representative from the department of environmental protection, the department of
1879 energy resources, the department of public utilities, the Massachusetts Clean Energy Center, the

1880 office of the governor, and the executive offices of administration and finance, education, health
1881 and human services, housing and economic development, labor and workforce development,
1882 public safety and security, and transportation and public works. The council shall also include a
1883 representative designated by the attorney general, the treasurer and receiver general, the secretary
1884 of the commonwealth, the state auditor, and the President of the University of Massachusetts.
1885 The council shall also include a member designated by the secretary of education to represent the
1886 community college system and a member designated by the secretary of education to represent
1887 the the state university system. The governor may appoint additional representatives from state
1888 agencies or quasi-public agencies to the council.

1889 (c) The council shall identify all existing laws, regulations, and programs of the
1890 Commonwealth with an impact on energy production and consumption, and evaluate them based
1891 on (1) their potential to accelerate or hinder the state's transition to 100 per cent renewable
1892 energy and (2) their ability to maximize the environmental and economic benefits of the
1893 transition for Massachusetts residents and businesses, particularly but not exclusively for
1894 environmental justice communities and communities that have been impacted by energy-related
1895 pollution.

1896 (d) Each executive department and quasi-public agency shall conduct a review of the
1897 laws, regulations, and programs in its jurisdiction, and submit a report to the council describing
1898 how these laws, regulations, and programs can be modified in order to accelerate the transition to
1899 100 per cent renewable energy. Each executive department and quasi-public agency shall further
1900 consider how modifying its programs to accelerate the transition to 100 per cent renewable
1901 energy can help achieve the department or agency's other objectives.

1902 (e) The secretary shall publish the council’s findings under subsections (c) and (d) of this
1903 section within 6 months of the formation of the council. The secretary and the council shall
1904 review and update these findings every 3 years from the date of initial publication.

1905 (f) Within one year from the passage of this act, the council shall determine a date by
1906 which the operations of state government will be powered with 100 percent renewable energy,
1907 provided that the date is not later than January 1, 2035. Within eighteen months of the passage of
1908 this act, each executive department and quasi-public agency shall present a plan to achieve this
1909 goal for the facilities and activities in its jurisdiction. Each executive department and quasi
1910 public agency shall report on its progress to the council and update its plan annually.

1911 (g) The council shall meet at least once per quarter to review progress in modifying laws,
1912 regulations, and programs to accelerate the transition to 100 per cent renewable energy. These
1913 meetings shall be open to members of the public and shall provide opportunities for public
1914 comment. At least one of these meetings shall be held in an environmental justice community
1915 each year.

1916 SECTION 135. If the commonwealth participates in a market based mechanism adopted
1917 pursuant to chapter 21N of the General Laws, the commonwealth may continue to comply with
1918 the terms of the market based mechanism notwithstanding any change in membership of the
1919 market based mechanism.

1920 SECTION 136. Subject to appropriation, there shall be established at the Massachusetts
1921 Clean Energy Technology Center a program for clean energy finance. MassCEC shall conduct a
1922 study of clean energy project finance gaps, including but not limited to project capital, project
1923 credit support/enhancement, project finance insurance and project pipeline development. The

1924 study shall include developing recommendations as to potential sources of additional funding to
1925 support initiatives aimed at closing the financing gaps addressed in the study. Pursuant to the
1926 findings of this study and subject to funding availability, MassCEC may establish a “Green
1927 Bank” or similar entity or program to provide the investment capital necessary to accelerate the
1928 deployment of a range of clean energy technologies in the buildings, transportation, industrial
1929 and other sectors may be necessary to achieve the pace of decarbonization necessary to meet the
1930 Commonwealth's net zero emissions goal.

1931 SECTION 137. Chapter 21N is hereby amended by adding the following section:-

1932 The secretary shall (i) determine a baseline measurement and measure the current carbon
1933 flux on natural and working lands; (ii) track and report the release of measurable greenhouse
1934 gases from and carbon sequestration by natural and working lands and the products derived from
1935 these lands to the maximum extent practicable; (iii) adopt statewide goals to reduce greenhouse
1936 gas emissions and increase carbon sequestration on natural and working lands; and (iv) develop a
1937 natural and working lands plan that outlines actions to meet these statewide goals, including but
1938 not limited to, land protection, management, and restoration, and state and local legislation, laws
1939 and regulations, programs, grants, loans, incentives and public-private partnerships to meet the
1940 statewide goals. The secretary shall conduct a stakeholder process to inform and develop said
1941 plan. Said plan shall provide guidance and strategies for state agencies, authorities,
1942 municipalities, regional planning agencies, nonprofit organizations, landowners and operators.
1943 Said baseline, goal and plan shall be integrated into the inventory, baseline assessment, plan and
1944 reporting requirements pursuant to this chapter, and shall be consistent with state climate change
1945 adaptation and resiliency policies.

1946 The secretary shall provide the plan to the senate and house committees on ways and
1947 means and the joint committee on environment, natural resources and agriculture not later than
1948 December 31, 2021 and every fifth year thereafter.

1949 SECTION 138. Section 138 of Chapter 164 of the General Laws, as appearing in the
1950 2016 Official Edition, is hereby amended by inserting, in line 37, after the word “less”, the
1951 following words:- “provided, however, that a Class I net metering facility of a municipality or
1952 other governmental entity may have a generating capacity of less than or equal to 60 kilowatts
1953 per unit.”

1954 SECTION 139. Subsection (i) of Section 139 of Chapter 164 of the General Laws, as
1955 appearing in the 2018 Official Edition, is hereby amended by striking the words “(1) equal to or
1956 less than 10 kilowatts on a single phase circuit or (2) 25 kilowatts on a 3 phase circuit” and
1957 inserting in place thereof the following words:- “equal to or less than 25 kilowatts.”

1958 SECTION 140. The regulations required pursuant to clause (i) of subsection (a) of
1959 section 7 of chapter 21N of the General Laws shall be promulgated and in effect not later than
1960 January 1, 2022.

1961 SECTION 141. The regulations required pursuant to clause (ii) of subsection (a) of
1962 section 7 of chapter 21N of the General Laws shall be promulgated and in effect not later than
1963 January 1, 2025.

1964 SECTION 142. The regulations required pursuant to clause (iii) of subsection (a) of
1965 section 7 of chapter 21N of the General Laws shall be promulgated and in effect not later than
1966 January 1, 2030.

1967 SECTION 143. The 2025 and 2030 statewide greenhouse gas emission limits required by
1968 subsection (b) of section 3 of chapter 21N of the General Laws, the 2025 and 2030 sector-based
1969 emissions sublimits required by section 3A of said chapter 21N and the 2030 emissions reduction
1970 plan required by said section 3 of said chapter 21N to realize the 2025 and 2030 limit and
1971 sublimits shall be adopted and published not later than January 1, 2022.

1972 SECTION 144. The 2035 statewide greenhouse gas emissions limit required by
1973 subsection (b) of section 3 of chapter 21N of the General Laws, the 2035 sector-based emissions
1974 sublimits required by section 3A of said chapter 21N and the emissions reduction plan required
1975 by said section 3 of said chapter 21N to realize the 2035 limit and sublimits shall be adopted and
1976 published not later than January 1, 2028.

1977 SECTION 145. The 2040 statewide greenhouse gas emissions limit required by
1978 subsection (b) of section 3 of chapter 21N of the General Laws, the 2040 sector-based emissions
1979 sublimits required by section 3A of said chapter 21N and the emissions reduction plan required
1980 by said section 3 of said chapter 21N to realize the 2040 limit and sublimits shall be adopted and
1981 published not later than January 1, 2033.

1982 SECTION 146. The 2045 statewide greenhouse gas emissions limit required by
1983 subsection (b) of section 3 of chapter 21N of the General Laws, the 2045 sector-based emissions
1984 sublimits required by section 3A of said chapter 21N and the emissions reduction plan required
1985 by said section 3 of said chapter 21N to realize the 2045 limit and sublimits shall be adopted and
1986 published not later than January 1, 2038.

1987 SECTION 147. The 2050 sector-based emissions sublimits required by section 3A of
1988 chapter 21N of the General Laws and the emissions reduction plan required by subsection (b) of

1989 section 3 of said chapter 21N to realize the 2050 limit and sublimits shall be adopted and
1990 published not later than January 1, 2023; provided, however, that the sublimits and plan shall be
1991 subject to revision and improvement by emissions reduction sublimits and plans adopted and
1992 published for 2030, 2035, 2040 and 2045.

1993 SECTION 148. Notwithstanding section 2 of chapter 21Q of the General Laws, 3
1994 members of the climate policy commission shall be initially appointed for terms of 1 year, 3
1995 members shall be appointed for terms of 3 years and 3 members shall be appointed for terms of 5
1996 years, with the length of each term to be determined by the elected chair.

1997 SECTION 149. The secretary of energy and environmental affairs shall set the first goal
1998 required by section 3B of chapter 21N of the General Laws not later than February 1, 2021.

1999 SECTION 150. Not later than June 30, 2021, the department of energy resources shall: (i)
2000 create, procure or designate the energy use benchmarking tool required by subsection (b) of
2001 section 18 of chapter 25A of the General Laws; and (ii) commence providing technical assistance
2002 and support to owners of buildings covered by said subsection (b) of said section 18 of said
2003 chapter 25A.

2004 SECTION 151. The first year of energy use reporting required by subsection (c) of
2005 section 18 of chapter 25A of the General Laws shall be for the calendar year beginning on
2006 January 1, 2022. In said reporting year, the department of energy resources may make available
2007 on its website limited energy use information, including, but not limited to, whether the
2008 information

2009 provided for a given building is accurate and complete.

2010 SECTION 152. The secretary shall no later than 365 days after this act takes effect, adopt
2011 regulations for the requirements, administration and enforcement of the environmental justice
2012 provisions of this act.

2013 SECTION 153. Clause Forty-fifth of section 5 of chapter 59 of the General Laws shall
2014 not apply to solar and wind powered systems for which the owner has a signed agreement with
2015 the city or town to make a payment in lieu of taxes under subsection (b) of section 38H of
2016 chapter 59 as of the effective date of this act.

2017 SECTION 154. Section 85 shall apply to taxes assessed for fiscal years beginning on or
2018 after July 1, 2021.

2019 SECTION 155. The department of public utilities shall promulgate regulations pursuant
2020 to section 115D of chapter 164 no later than December 31, 2021.

2021 SECTION 156. The department of public utilities shall promulgate and implement the
2022 regulations required pursuant to subsection (i) of section 144 of chapter 164 by July 1, 2021.

2023 SECTION 157. Section 46 shall only apply to contracts entered into on or after the
2024 effective date of this act.

2025 SECTION 158. The department of energy resources shall implement the requirements of
2026 subsection (d) of section 11 of chapter 75 of the acts of 2016 for the capacity block immediately
2027 succeeding the capacity block available on the effective date of this act.

2028 SECTION 159. The Massachusetts Department of Transportation shall install and
2029 maintain electric vehicle charging stations at all service plazas located on the Massachusetts
2030 Turnpike for public use not later than December 31, 2022.

2031 SECTION 160. The motor vehicle inventory required by section 6A of chapter 448 of the
2032 acts of 2016 shall be established not later than June 1, 2021.

2033 SECTION 161. Amendments to the state building and electric code required under
2034 section 126 shall be in effect not later than March 1, 2021.