

SENATE No. 2995

The Commonwealth of Massachusetts

In the One Hundred and Ninety-First General Court
(2019-2020)

SENATE, January 4, 2021

Report of the committee of conference on the disagreeing votes of the two branches, with reference to the House amendments to the Senate Bill setting next-generation climate policy (Senate, No. 2500) (amended by the House by striking out all after the enacting clause and inserting in place thereof the text of House document numbered 4933; and by striking out the title and inserting in place thereof the following title “An Act creating a 2050 roadmap to a clean and thriving Commonwealth),-- reports, a “Bill creating a next-generation roadmap for Massachusetts climate policy” (Senate, No. 2995).

For the Committee:

Michael J. Barrett	Thomas A. Golden, Jr.
Cynthia Stone Creem	Patricia A. Haddad
Patrick M. O’Connor	Bradley H. Jones, Jr.

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**In the One Hundred and Ninety-First General Court
(2019-2020)**

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

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

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

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

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

11 "Greenhouse gas emissions source", a source, or category of sources, of greenhouse gas
12 emissions with emissions that are at a level of significance, as determined by the secretary, such
13 that its inclusion in the programs and initiatives established under this chapter will enable the

14 secretary to effectively reduce greenhouse gas emissions and ensure compliance with the
15 statewide greenhouse gas emissions limits and sublimits.

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

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

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

25 “Market-based compliance mechanism”, any form of market-based or priced compliance
26 system imposed on sources or categories of sources of greenhouse gases, or any pricing
27 mechanism imposed directly on greenhouse gas emissions sources or on their distribution or sale,
28 designed to reduce emissions as required by this chapter, which shall include, but not be limited
29 to: (i) a system of market-based declining annual aggregate emissions limitations for sources or
30 categories of sources that emit greenhouse gases; (ii) greenhouse gas emissions exchanges,
31 banking, credits and other transactions governed by rules and protocols established by the
32 secretary, the regional greenhouse gas initiative or other regional program that result in the same
33 greenhouse gas emissions reduction, over the same time period, as direct compliance with a
34 greenhouse gas emissions limit or emission reduction measure adopted pursuant to this chapter;

35 or (iii) a system of charges or exactions imposed to reduce statewide greenhouse gas emissions,
36 in whole or in part.

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

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

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

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

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

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

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

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

67 Section 3A. (a) The secretary shall, in consultation with the secretary of housing and
68 economic development and the secretary of transportation, adopt sector-based statewide
69 greenhouse gas emissions sublimits as components of each statewide greenhouse gas emissions
70 limit adopted pursuant to subsection (b) of section 3 for the sectors of electric power,
71 transportation, commercial and industrial heating and cooling, residential heating and cooling,
72 industrial processes, and natural gas distribution and service. In order to achieve the greenhouse
73 gas emissions limits established by this chapter, the secretary may adopt sector-based statewide
74 greenhouse gas emissions sublimits for any other sector or source the secretary may designate.

75 (b) Sector-based statewide greenhouse gas emissions sublimits for a given year shall not,
76 in the aggregate, exceed the statewide greenhouse gas emissions limit for the year and shall be

77 designed to maximize the ability of the commonwealth to meet the 2050 statewide greenhouse
78 gas emissions limit established in subsection (b) of section 3.

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

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

86 Section 4. (a) The secretary shall adopt the 2020 statewide greenhouse gas emissions
87 limit that shall be between 10 per cent and 25 per cent below the 1990 emissions level and a plan
88 for achieving said reduction. The secretary shall consult with all state agencies and regional
89 authorities with jurisdiction over sources of greenhouse gases on all elements of the emissions
90 limits, sublimits, and roadmap plans required by this chapter, including, but not limited to,
91 electrical generation, load based-standards or requirements, the provision of reliable and
92 affordable electrical service and statewide fuel supplies. The 2025, 2030, 2035, 2040, 2045 and
93 2050 statewide greenhouse gas emissions limits and the accompanying roadmap plans for
94 realizing the limits shall comply with the requirements of this section and section 5.

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

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

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

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

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

110 (g) Not more than 18 months after the last day of 2020, 2025, 2030, 2035, 2040, 2045,
111 2050 and any other calendar year for which a statewide greenhouse gas emissions limit is
112 adopted pursuant to statute or regulation, the secretary shall issue a statement in writing to the
113 clerks of the house of representatives and the senate, the house and senate committees on ways
114 and means, the joint committee on telecommunications, utilities and energy and the joint
115 committee on environment, natural resources and agriculture. The statement shall indicate,
116 drawing upon the best available data and measurements, the degree of compliance achieved by
117 the commonwealth with the statewide greenhouse gas emissions limit. The statement shall
118 reasonably quantify the extent to which emissions exceeded or did not exceed the limit and shall

119 consider the lessons to be learned from any success or failure to comply with said limit. If
120 emissions exceeded the limit, the statement shall describe remedial steps that might be taken to
121 offset the excess emissions and ensure compliance with the next upcoming limit adopted
122 pursuant to statute or regulation.

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

126 Section 5. To the extent practicable, the roadmap plans required by subsection (b) of
127 section 3 for 2025, 2030, 2035, 2040 and 2045 shall be consistent with each other, cumulative in
128 effect and constructed to realize the 2050 statewide greenhouse gas emissions limit imposed by
129 said subsection (b) of said section 3. Each plan, including the 2050 plan, shall (i) address each
130 sector subject to a statewide greenhouse gas emissions sublimit imposed by section 3A; (ii)
131 indicate for each sector how, to what extent, and when the commonwealth will act to reduce its
132 emissions in order to realize the 2050 statewide greenhouse gas emissions limit; (iii) consider
133 whether regulations or other measures undertaken, including distribution of emissions
134 allowances, are equitable and minimize costs and maximize the total benefits to the
135 commonwealth and encourage greenhouse gas emissions reductions; (iv) consider whether
136 activities undertaken pursuant to the regulations complement, and do not interfere with, efforts to
137 achieve and maintain federal and state ambient air quality standards and reduce toxic air
138 contaminant emissions; (v) consider overall societal benefits, including reductions in other air
139 pollutants, diversification of energy sources and other benefits to the economy, environment and
140 public health; (vi) consider whether state actions minimize the administrative burden of
141 implementing and complying with these plans and regulations; (vii) consider whether state

142 actions minimize leakage; (viii) consider the significance of the contribution of each source or
143 category of sources to statewide emissions of greenhouse gases; (ix) consider whether
144 greenhouse gas emissions reductions achieved are real, permanent, quantifiable, verifiable, and
145 enforceable; (x) quantify the emissions reductions to be realized due to the electric and gas
146 energy efficiency programs established under sections 19 and 21 of chapter 25; (xi) set numerical
147 benchmarks and track adoption within the commonwealth of emissions reduction products,
148 solutions, and improvements used to achieve the statewide greenhouse gas emissions limits and
149 sublimits, including, but not limited to, electric vehicles, electric vehicle charging stations, solar
150 photovoltaic and solar thermal technologies, offshore wind facilities, the release of measurable
151 greenhouse gases from and carbon sequestration by natural and working lands and the products
152 derived from these lands to the maximum extent practicable, energy storage capacity, air-source
153 and ground-source heat pumps and anaerobic digestion; (xii) summarize the steps taken by the
154 commonwealth to improve or mitigate economic, environmental and public health impacts on
155 low- or moderate-income individuals and environmental justice populations; (xiii) (A) contain a
156 statewide baseline measurement and measure the current carbon flux on natural and working
157 lands; (B) adopt statewide goals to reduce greenhouse gas emissions and increase carbon
158 sequestration on natural and working lands; and (C) develop a natural and working lands plan
159 that outlines actions to meet these statewide goals, including, but not limited to, land protection,
160 management and restoration and state and local legislation, laws and regulations, programs,
161 grants, loans, incentives and public-private partnerships, and provide guidance and strategies for
162 state agencies, authorities, municipalities, regional planning agencies, nonprofit organizations,
163 landowners and operators; provided, however, that said plan shall be developed and informed by
164 a stakeholder process and that the baseline, goal and plan shall be integrated into the inventory,

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

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

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

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

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

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

199 Section 13. (a) There shall be within the center a clean energy equity workforce and
200 market development program to provide workforce training, educational and professional
201 development, job placement, startup opportunities and grants promoting participation in the
202 commonwealth’s energy efficiency, clean energy, and clean heating and cooling industries to: (i)
203 certified minority-owned and women-owned small business enterprises; (ii) individuals residing
204 within an environmental justice community; and (iii) current and former workers from the fossil
205 fuel industry. The program shall: (i) identify the employment potential of the energy efficiency
206 and clean energy industries and the skills and training needed for workers in those fields; (ii)
207 maximize energy efficiency and clean energy employment opportunities for certified minority-
208 owned and women-owned small business enterprises and individuals residing within an

209 environmental justice community; (iii) identify barriers to deployment of clean energy and
210 energy storage resources to certified minority-owned and women-owned small business
211 enterprises; (iv) recommend near-term deployment targets consistent with the state’s clean
212 energy and climate change requirements and awarding incentives to deploy said resources; and
213 (v) make recommendations to the general court for policies to promote employment growth and
214 access to jobs in the clean energy industry.

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

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

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

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

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

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

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

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

246 SECTION 20. Section 21 of said chapter 25, as so appearing, is hereby amended by
247 inserting after the word “supply”, in line 5, the following words:- ; provided, however, that when
248 determining cost-effectiveness, the calculation of benefits shall include calculations of the social
249 value of greenhouse gas emissions reductions.

250

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

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

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

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

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

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

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

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

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

286 (5) Not later than 15 months after the conclusion of the final year of each plan, the
287 department, drawing upon the most accurate and most complete data and measurements then
288 available, shall issue a statement in writing to the clerks of the house of representatives and the
289 senate, the house and senate committees on ways and means, the joint committee on
290 telecommunications, utilities and energy and the joint committee on the environment, natural
291 resources and agriculture, indicating the degree to which the activities undertaken pursuant to the
292 performance of each plan met the goal for the plan set by the secretary pursuant to section 3B of
293 chapter 21N.

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

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

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

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

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

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

317 SECTION 32. Section 11F of said chapter 25A, as so appearing, is hereby amended by
318 striking out, in line 18 and 19, the words “2029; and (5)” and inserting in place thereof the
319 following words:- 2024; (5) an additional 3 per cent of sales each year thereafter until December
320 31, 2029; and (6).

321 SECTION 33. Said chapter 25A is hereby further amended by inserting after section
322 11F½ the following section:-

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

325 (b) A Municipal Lighting Plant GGES shall set the minimum percentage of non-carbon
326 emitting energy sold by each municipal lighting plant to all retail end-user customers purchasing
327 electricity pursuant to rates established pursuant to section 58 of chapter 164 as follows: (i) 50
328 per cent non-carbon emitting energy by 2030; (ii) 75 non-carbon emitting energy per cent by
329 2040; and (iii) energy sales achieving net-zero greenhouse gas emissions by 2050.

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

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

335 satisfy obligations in jurisdictions other than the commonwealth: (1) solar photovoltaic; (2) solar
336 thermal electric; (3) hydroelectric, including imports into the New England wholesale electric
337 market as administered by ISO New England Inc.; (4) nuclear; (5) marine or hydrokinetic
338 energy; (6) geothermal energy; (7) landfill methane; (8) anaerobic digester gas; (9) wind energy;
339 and (10) any other generation qualifying for renewable portfolio standards pursuant to section
340 11F or the department of environmental protection's clean energy standard regulation pursuant to
341 310 C.M.R. 7.75;

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

469 (2) Incandescent reflector lamps that are:

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

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

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

473 (3) Incandescent lamps that are:

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

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

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

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

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

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

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

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

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

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

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

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

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

498 (k) commercial hot-food holding cabinets.

499 (l) computers and computer monitors.

500 (m) state-regulated general service lamps.

501 (n) high CRI fluorescent lamps.

502 (o) plumbing fittings.

503 (p) plumbing fixtures.

504 (q) portable electric spas.

505 (r) water coolers.

506 (s) residential ventilating fans.

507 (t) commercial ovens.

508 (u) commercial dishwashers.

509 (v) commercial fryers.

510 (w) commercial steam cookers.

511 (x) spray sprinkler bodies.

512 (y) electric vehicle supply equipment.

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

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

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

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

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

535 (9) High CRI, fluorescent lamps shall meet the minimum efficiency requirements
536 contained in Section 430.32(n)(4) of Title 10 of the Code of Federal Regulations as in effect on
537 January 3, 2019, when tested in accordance with the test procedure prescribed in Appendix R to
538 Subpart B of Part 430 of Title 10 of the Code of Federal Regulations as in effect on January 3,
539 2019.

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

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

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

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

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

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

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

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

560 (VI) the flow rate of showerheads shall not be greater than 2.0 gpm at 80 psi when tested
561 in accordance with the flow rate test procedure prescribed in Appendix S to Subpart B of Part
562 430 of Title 10 of the Code of Federal Regulations, effective on January 3, 2019.

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

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

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

569 (ii) Waste extraction test for water closets, section 7.9 of ASME A112.19.2/CSA B45.1-
570 2018;

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

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

574 (d) Dual-flush tank-type water closets shall have a maximum effective flush volume of
575 1.28 gallons per flush.

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

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

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

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

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

586 (14) Residential ventilating fans shall meet the qualification criteria of the ENERGY
587 STAR Program Requirements Product Specification for Residential Ventilating Fans, Version
588 4.1.

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

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

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

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

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

604 (20) Electric vehicle supply equipment included in the scope of the ENERGY STAR
605 Program Requirements Product Specification for Electric Vehicle Supply Equipment, Version
606 1.0 (Rev. Apr-2017), shall meet the qualification criteria of that specification.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

887 (3½) “Public utility employer,” a gas and electricity public utility provider.

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

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

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

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

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

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

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

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

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

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

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

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

949 SECTION 79. Section 1J of said chapter 164, as so appearing, is hereby amended by
950 striking out, in line 5, the figure "250,000" and inserting in place thereof the following figure:-
951 500,000.

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

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

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

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

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

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

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

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

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

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

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

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

997 (b) A gas company shall file with the department a plan to address aging or leaking
998 natural gas infrastructure within the commonwealth and the leak rate on the gas company's
999 natural gas infrastructure in the interest of public safety and reducing lost and unaccounted for
1000 natural gas through a reduction in natural gas system leaks. Each company's gas infrastructure
1001 plan shall include interim targets for the department's review. The department shall review these
1002 interim targets to ensure each gas company is meeting the appropriate pace to reduce the leak
1003 rate on and to replace the gas company's natural gas infrastructure in a safe and timely manner.
1004 The interim targets shall be for periods of not more than 6 years or at the conclusion of 2
1005 complete 3-year walking survey cycles conducted by the gas company. The gas companies shall

1006 incorporate these interim targets into timelines for removing all leak-prone infrastructure filed
1007 pursuant to subsection (c) and may update them based on overall progress. The department may
1008 levy a penalty against any gas company that fails to meet its interim target in an amount up to
1009 and including the equivalent of 2.5 per cent of such gas company's transmission and distribution
1010 service revenues for the previous calendar year.

1011 SECTION 88. Said section 145 of said chapter 164, as so appearing, is hereby further
1012 amended by striking out, in line 33, the words “and (vi)” and inserting in place thereof the
1013 following words:- (vi) the relocations, where practical, of a meter located inside of a structure to
1014 the outside of said structure for the purpose of improving public safety; and (vii).

1015 SECTION 89. The second paragraph of subsection (c) of said section 145 of said chapter
1016 164, as so appearing, is hereby amended by striking out the first sentence and inserting in place
1017 thereof the following sentence:-

1018 As part of each plan filed under this section, a gas company shall include a timeline for
1019 removing all leak-prone infrastructure on an accelerated basis specifying an annual replacement
1020 pace and program end date with a target end date of: (i) not more than 20 years from the filing of
1021 a gas company's initial plan; or (ii) a reasonable target end date considering the allowable
1022 recovery cap established pursuant to subsection (f).

1023 SECTION 90. Section 16 of chapter 298 of the acts of 2008 is hereby amended by
1024 striking out the words “, and shall expire on December 31, 2020”.

1025 SECTION 91. The fourth sentence of subsection (b) of section 83C of chapter 169 of the
1026 acts of 2008, as appearing in section 12 of chapter 188 of the acts of 2016, is hereby amended by
1027 striking out the figure “1,600” and inserting in place thereof the following figure:- 4,000.

1028 SECTION 92. The fifth sentence of said subsection (b) of said section 83C of said
1029 chapter 169, as amended by chapter 48 of the acts of 2019, is hereby amended by striking out the
1030 figure “24”, as appearing in section 12 of chapter 188 of the acts of 2016, and inserting in place
1031 thereof the following figure:- 18.

1032 SECTION 93. The sixth sentence of said subsection (b) of said section 83C of said
1033 chapter 169, as appearing in said section 12 of said chapter 188 of the acts of 2016, is hereby
1034 further amended by inserting after the word “resources” the following words:- and the executive
1035 office of housing and economic development.

1036 SECTION 94. Notwithstanding any general or special law, rule or regulation to the
1037 contrary, when initiating a regulatory process for any new solar incentive program developed by
1038 the department of energy resources pursuant to section 11 of chapter 75 of the acts of 2016 or
1039 any other general or special law or other authority, the department shall to the greatest extent
1040 feasible: (i) provide equitable access to all Massachusetts ratepayers, including low-income
1041 ratepayers; (ii) address solar energy access and affordability for low-income communities; (iii)
1042 include effective consumer protection provisions; and (iv) ensure that information about the
1043 program and its benefits are provided in a readily accessible manner to all ratepayers, including
1044 non-English speaking communities. The department shall consult with a diverse range of
1045 stakeholders to inform the design of any such solar incentive program, including low-income
1046 ratepayers and organizations representing their interests.

1047 SECTION 95. Notwithstanding any general or special law to the contrary, the department
1048 of energy resources may require distribution companies to jointly and competitively solicit and
1049 procure proposals for offshore wind energy transmission sufficient to deliver energy generation

1050 procured pursuant to subsection (b) of section 83C of chapter 169 of the acts of 2008 from
1051 designated wind energy areas for which a federal lease was issued on or after January 1, 2012,
1052 that may be developed independent of such offshore wind energy generation; provided further,
1053 that such transmission service shall be made available for use by more than 1 wind energy
1054 generation project and shall not exceed the generation capacity authorized by this section; and
1055 provided further, that any selection of offshore wind energy transmission shall be the most cost-
1056 effective mechanism for procuring reliable, low-cost offshore wind energy transmission service
1057 for ratepayers.

1058 SECTION 96. Notwithstanding any general or special law to the contrary, the
1059 department of energy resources and department of public utilities shall amend any rules,
1060 regulations, and tariffs to permit the owner of any new solar facility, including any solar energy
1061 generating source, that qualifies for programs pursuant to section 11F of chapter 25A of the
1062 General Laws and application regulations that achieves commercial operation on or after January
1063 1, 2021 to: (i) receive credits for any electricity generated by a solar facility that exceeds the
1064 owner's usage during a billing period, with such credits to be credited to a solar facility owner's
1065 customer account with the relevant distribution company, and carried forward from month to
1066 month; (ii) designate customers of the same distribution company, regardless of which ISO-NE
1067 load zone the customers are located in, to receive such credits in amounts attributed by the solar
1068 facility, with such credits applicable to any portion or all of a designated customer's electric bill;
1069 and (iii) direct the distribution company to purchase all or a portion of any credits produced by a
1070 solar facility at the rates provided for in the applicable statute, regulation, or tariff without
1071 discount, fee, or penalty. This section shall not apply to solar net metering facilities.

1072 SECTION 97. Notwithstanding clause forty-fifth of section 5 of chapter 59 of the
1073 General Laws, the owner of a solar or wind powered system and the municipality in which the
1074 system is located shall not be required by sections 61 and 63 to amend, modify or renegotiate an
1075 existing payment in lieu of tax agreement that was entered into or executed before the effective
1076 date of this act.

1077 SECTION 98. Notwithstanding sections sections 61 and 63, a solar or wind system
1078 determined to be exempt under clause Forty-fifth of section 5 of chapter 59 of the General Laws
1079 prior to the effective date of this act and that has not executed a payment in lieu of taxes
1080 agreement with the municipality in which such system is located shall remain exempt; provided,
1081 however, that the system produces less than 150 per cent of the annual electricity needs of the
1082 real property on which it is located.

1083 SECTION 99. The department of public utilities may, upon application of a gas company
1084 as defined in section 1 of chapter 164 of the General Laws, authorize 1 or more pilot projects for
1085 the development of utility-scale renewable thermal energy. Such application shall be filed with
1086 the department on or before January 1, 2023. The department may, under a pilot, approve
1087 recovery of costs for projects situated in the commonwealth that demonstrate the costs and
1088 benefits of: (i) utility-scale renewable thermal energy sources, systems or technologies capable
1089 of substituting for fossil-based natural gas; or (ii) utility-scale renewable thermal energy
1090 replacements for, or alternative uses of, infrastructure constructed originally to generate, transmit
1091 or distribute fossil-based natural gas; provided, however, that such substitute renewable thermal
1092 energy sources, systems or technologies, and such replacements or alternative uses, have a
1093 reasonable likelihood of facilitating substantial reductions in greenhouse gas emissions that
1094 satisfy the mandates of greenhouse gas reductions set forth in chapter 21N of the General Laws;

1095 and provided further, that the pilots shall not include the blending of other fuels with fossil-based
1096 natural gas. The department may, within such a pilot, permit a gas company to bill for thermal
1097 energy. The department shall ensure transparency and validity of the outcomes of the pilot
1098 projects through a third-party evaluation and report by the department of energy resources. In
1099 determining whether to approve a pilot project, the department shall consider the reasonableness
1100 of the size, scope and scale of the pilot project and related budget and whether the benefits of the
1101 proposed pilot justify the proposed cost to both participating and non-participating customers;
1102 provided, however, that the calculation of benefits shall include calculations of the social value
1103 of greenhouse gas emissions reductions. The department may promulgate rules or regulations to
1104 implement this section.

1105 SECTION 100. The Massachusetts clean energy technology center shall administer a heat
1106 pump market development program to fund and offer training, which shall include, but not be
1107 limited to, heating oil dealers, for the purpose of expanding markets for space and water heating
1108 using efficient heat pump technology. The Massachusetts clean energy technology center may
1109 draw upon the Massachusetts Renewable Energy Trust Fund, established in section 9 of chapter
1110 23J of the General Laws, for such purpose if sufficient funds are available. The Massachusetts
1111 clean energy technology center may stop offering such program after January 1, 2026.

1112 SECTION 101. To develop the specialized stretch energy code required by section 6 of
1113 chapter 25A of the General Laws, the department of energy resources shall: (i) hold not less than
1114 5 public hearings in geographically diverse locations throughout the commonwealth that shall
1115 represent the distinguishing characteristics of rural, suburban and urban households, 1 of which
1116 shall be held in an underserved community or community with a high percentage of low-income
1117 households; and (ii) consider the development of a tiered implementation plan for the adoption of

1118 the stretch energy code including, but not limited to, phasing in requirements based on building
1119 type or uses. The specialized stretch energy code required by said section 6 of said chapter 25A
1120 shall be developed, adopted and incorporated as an appendix to the state building code not later
1121 than 1 year after the passage of this act.

1122 SECTION 102. The executive office of energy and environmental affairs and its various
1123 agencies and departments shall conduct a study within 2 years of the effective date of this act
1124 that shall include, but not be limited to: (i), an analysis of greenhouse gas emissions generated
1125 and projected to be generated by combustion within the commonwealth of the various categories
1126 and classes of biomass fuels; (ii) the public health consequences of said combustion for affected
1127 populations, together with estimations of the cumulative greenhouse gas emissions and (iii)
1128 public health impacts of said combustion. To inform the design and conduct of said study, the
1129 executive office shall hold not less than 3 public hearings.

1130 SECTION 103. The department of public utilities shall establish rules and regulations by
1131 which the qualifications of contractors shall be evaluated. Contractors who wish to be eligible to
1132 receive contracts with a gas company to perform gas work shall be required to register with the
1133 department and provide all required documentation to meet certification requirements, as set by
1134 the department, to the department on an annual basis.

1135 SECTION 104. The department of public utilities shall promulgate and implement the
1136 regulations required pursuant to subsection (g) of section 144 of chapter 164 of the General
1137 Laws.

1138 SECTION 105. The department of revenue, in consultation with the department of energy
1139 resources, shall issue guidance for municipalities and solar, wind and energy storage system

1140 owners that shall include, but not be limited to: (i) assessment of solar, wind and energy storage
1141 systems; (ii) standardization of agreement terms; and (iii) where feasible, standardization of tax
1142 policy when agreements for payments in lieu of taxes are not in place. The guidance shall be
1143 issued not more than 9 months after the effective date of this act.

1144 SECTION 106. Notwithstanding section 3B of chapter 21N of the General Laws, the
1145 secretary of energy and environmental affairs shall set the first goal required by said section 3B
1146 of said chapter 21N not later than April 15, 2021.

1147 SECTION 107. The 2025 and 2030 statewide greenhouse gas emission interim limits
1148 and sublimits required by subsection (b) of section 3 and section 3A of chapter 21N of the
1149 General Laws, and the 2030 emissions reduction roadmap plan required by said section 3 of said
1150 chapter 21N shall be adopted and published not later than January 1, 2022.

1151 SECTION 108. The 2035 statewide greenhouse gas emissions interim limit and sublimits
1152 required by subsection (b) of section 3 and section 3A of chapter 21N of the General Laws, and
1153 the 2035 emissions reduction roadmap plan required by said section 3 of said chapter 21N, shall
1154 be adopted and published not later than January 1, 2028.

1155 SECTION 109. The 2040 statewide greenhouse gas emissions interim limit and sublimits
1156 required by subsection (b) of section 3 and section 3A of chapter 21N of the General Laws, and
1157 the 2040 emissions reduction roadmap plan required by said section 3 of said chapter 21N, shall
1158 be adopted and published not later than January 1, 2033.

1159 SECTION 110. The 2045 statewide greenhouse gas emissions interim limit and sublimits
1160 required by subsection (b) of section 3 and section 3A of chapter 21N of the General Laws, and

1161 the 2045 emissions reduction roadmap plan required by said section 3 of said chapter 21N, shall
1162 be adopted and published not later than January 1, 2038.

1163 SECTION 111. The 2050 sector-based emissions sublimits required by section 3A of
1164 chapter 21N of the General Laws and the emissions reduction plan required by subsection (b) of
1165 section 3 of said chapter 21N to realize the 2050 limit and sublimits shall be adopted and
1166 published not later than January 1, 2023; provided, however, that the sublimits and plan shall be
1167 subject to revision and improvement by emissions reduction sublimits and plans adopted and
1168 published for 2030, 2035, 2040 and 2045.

1169 SECTION 112. Section 34 shall take effect on January 1, 2026.

1170 SECTION 113. Section 52 shall take effect on January 1, 2022.

1171 SECTION 114. Sections 61, 62, 63, 97, and 98 shall take effect 90 days from the passage
1172 of this act.