

HOUSE No. 4933

Text of House amendments and Bills in the Third Reading changes to the Senate Bill setting next-generation climate policy (Senate, No. 2500), as amended by the House (July 30 and July 31). July 31, 2020.

The Commonwealth of Massachusetts

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

By striking out all after the enacting clause and inserting in place thereof the following:—

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 including, but not limited to, emissions from any
6 transportation vehicle, building, structure, distribution system or residential, commercial,
7 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 inserting after the definition of “Greenhouse gas emissions source” the following
10 definition:—

11 “Greenhouse gas-emitting priority”, matter that emits or is capable of emitting a
12 greenhouse gas when burned including, but not limited to, natural gas, petroleum, coal and any

13 solid, liquid or gaseous fuel derived therefrom or any other such matter as identified by the
14 department.

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

18 “Indirect emissions”, emissions associated with the consumption of any greenhouse gas-
19 emitting priority or purchased electricity, fuel, steam and heating or cooling by a person, an
20 entity or a facility.

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

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

35 SECTION 4A. Section 1 of chapter 21N of the General Laws, as so appearing, is hereby
36 amended by inserting after the definition of “Nature-based solutions” the following new
37 definition:-

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

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

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

49 SECTION 6. Subsection (b) of section 3 of said chapter 21N, as so appearing, is hereby
50 amended by striking out clause (4), and inserting in place thereof the following clause:-

51 (4) a 2050 statewide emissions limit that achieves at least net zero statewide greenhouse
52 gas emissions.

53 SECTION 7. Section 4 of said chapter 21N, as so appearing, is hereby amended by
54 striking out, in line 19, the words “established pursuant to section 12”.

55 SECTION 8. Said section 4 of said chapter 21N, as so appearing, is hereby further
56 amended by adding the following 3 subsections:-

57 (i) The secretary shall adopt interim 2030 and 2040 emissions limits consistent with the
58 modeling and analysis required by section 12 and in accordance with this section and section 3.
59 The interim 2030 statewide greenhouse gas emissions limit shall be at least 50 per cent below the
60 1990 level, and the interim 2040 statewide greenhouse gas emissions limit shall be at least 75 per
61 cent below the 1990 level. In setting the interim 2030 and 2040 emissions limits, the secretary
62 shall comply with the second sentence of subsection (a) and subsections (b) through (g).

63 (j) In addition to the requirements of this section and section 5, the secretary shall
64 issue a 2050 emissions reduction roadmap plan. The 2050 emissions reduction roadmap plan
65 shall describe the commonwealth's plan to achieve the 2050 emissions limit required by clause 4
66 of subsection (b) of section 3, as well as interim 2030 and 2040 emissions limits required by
67 subsection (i), by means of 1 or more technologically and economically feasible pathways
68 selected to reduce statewide emissions. The 2050 emissions reduction roadmap plan shall include
69 proposed policies, regulations and legislative recommendations that incorporate all sources or
70 categories of sources that emit greenhouse gases with the goal of reducing those emissions to
71 achieve the 2050 emissions limit required by subsection (b) of section 3.

72 (k) The secretary shall promulgate regulations regarding all sources or categories of
73 sources that emit greenhouse gases consistent with, and as necessary to implement the 2050
74 emissions reduction roadmap plan required by subsection (j). Regulations shall be consistent
75 with section 12 and subsections (i) and (j), and shall be designed to ensure that the
76 commonwealth achieves its required emissions reductions equitably and in a manner that

77 protects low and moderate income persons and environmental justice populations. The
78 department shall update said regulations within 1 year of the release of the report required by
79 section 5.

80 SECTION 9. Section 5 of said chapter 21N, as so appearing, is hereby amended by
81 striking out, in lines 25 and 26, the words “ and (x) recommendations for future policy action.”
82 and inserting in place thereof the following words:- (x) a comprehensive update to the 2050
83 emissions reduction roadmap plan required by subsection (j) of section 4; (xi) a detailed
84 summary of the steps taken by the commonwealth to improve or mitigate economic,
85 environmental and public health impacts on low or moderate-income individuals and
86 environmental justice populations; and (xii) recommendations for future policy action.

87 SECTION 10. Said chapter 21N is hereby further amended by adding the following
88 section:-

89 Section 12. The secretary shall publish the results of quantitative modeling and analysis
90 of the commonwealth’s energy economy and greenhouse gas emissions in their regional context,
91 including but not limited to the regional electric distribution and transmission grid, and identify
92 multiple technologically and economically feasible plans for reducing statewide emissions
93 consistent with the subsection (b) of section 3 and subsections (i) and (j) of section 4. The
94 modeling and analysis shall employ back-casting methodology and may be conducted in
95 conjunction with other states or regional entities as part of an analysis of reducing regional
96 emissions to a level consistent with this chapter. Each plan identified by the secretary shall
97 analyze the economic, environmental and public health impacts on the commonwealth, including
98 those that may benefit or burden low or moderate income populations or environmental justice

99 populations. The secretary shall publish the results of the modeling and analysis required by this
100 section on its website, and to the maximum extent permitted by law, shall make available for
101 public inspection and use the model, all model assumptions, and all input and output data;
102 provided, that the secretary may protect from public disclosure, trade secrets, confidential,
103 competitively sensitive or other proprietary information provided in the course of proceedings in
104 the same manner as provided in section 5D of chapter 25.

105 Section 13. The secretary shall (i) determine a baseline measurement and measure the
106 current carbon flux on natural and working lands; (ii) track and report the release of measurable
107 greenhouse gases from and carbon sequestration by natural and working lands and the products
108 derived from these lands to the maximum extent practicable; (iii) adopt statewide goals to reduce
109 greenhouse gas emissions and increase carbon sequestration on natural and working lands; and
110 (iv) develop a natural and working lands plan that outlines actions to meet these statewide goals,
111 including but not limited to, land protection, management, and restoration, and state and local
112 legislation, laws and regulations, programs, grants, loans, incentives and public-private
113 partnerships to meet the statewide goals. The secretary shall conduct a stakeholder process to
114 inform and develop said plan. Said plan shall provide guidance and strategies for state agencies,
115 authorities, municipalities, regional planning agencies, nonprofit organizations, landowners and
116 operators. Said baseline, goal and plan shall be integrated into the inventory, baseline
117 assessment, plan and reporting requirements pursuant to this chapter, and shall be consistent with
118 state climate change adaptation and resiliency policies.

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

122 SECTION 10A. Section 1 of chapter 23M is hereby amended by striking out the words
123 “or retrofitting”, in lines 16 and 17, and inserting in place thereof the following:- , retrofitting or
124 qualifying new construction

125 SECTION 11. Chapter 23J of the General Laws is hereby amended by adding the
126 following section:-

127 Section 13. (a) There shall be within the center a clean energy equity workforce and
128 market development program to provide workforce training, educational and professional
129 development, job placement, startup opportunities and grants promoting participation in the
130 commonwealth’s energy efficiency, clean energy, and clean heating and cooling industries to: (i)
131 certified minority-owned and women-owned small business enterprises; (ii) individuals residing
132 within an environmental justice community; and (iii) current and former workers from the fossil
133 fuel industry. The program shall: (i) identify the employment potential of the energy efficiency
134 and clean energy industries and the skills and training needed for workers in those fields; (ii)
135 maximize energy efficiency and clean energy employment opportunities for certified minority-
136 owned and women-owned small business enterprises and individuals residing within an
137 environmental justice community; (iii) identify barriers to deployment of clean energy and
138 energy storage resources to certified minority-owned and women-owned small business
139 enterprises; (iv) recommend near-term deployment targets consistent with the state’s clean
140 energy and climate change requirements and awarding incentives to deploy said resources; and
141 (v) make recommendations to the general court for policies to promote employment growth and
142 access to jobs in the clean energy industry.

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

148 SECTION 12. Section 19 of chapter 25 of the General Laws, as appearing in the 2018
149 Official Edition, is hereby amended by adding the following subsection:-

150 (d) Notwithstanding any provision of this section to the contrary, the department shall
151 annually transfer, on or before December 31, no less than \$12,000,000 in funds collected
152 pursuant to this section to the Massachusetts clean energy center for the clean energy equity
153 workforce and market development program pursuant to subsection (b) of section 13 of chapter
154 23J; provided, however, such transfer shall not reduce low-income program funds allocated
155 pursuant to subsection (c).

156 SECTION 13. Section 21 of said chapter 25, as so appearing is hereby amended by
157 striking out, in lines 56 to 58, inclusive, the words “and (J) programs that result in customers
158 switching to renewable energy sources or other clean energy technologies;” and inserting in
159 place thereof the following words:- (J) programs that result in customers switching to renewable
160 energy sources or other clean energy technologies; and (K) programs administered by the low-
161 income weatherization and fuel assistance program network that result in whole home retrofits,
162 including but not limited to weatherization and electrification for low-income and fixed-income
163 households residing in (1) affordable housing units under the jurisdiction of the department of

164 housing and community development or (2) affordable housing units the department oversees
165 funding for, which result in lower energy use or utilization in renewable energy;

166 SECTION 14. Said section 21 of said chapter 25, as so appearing, is hereby further
167 amended by adding the following 3 subsections:-

168 (f) The department of housing and community development shall conduct an audit of the
169 (1) affordable housing units under the jurisdiction of the department and (2) the affordable
170 housing units the department oversees funding for in order to determine the need and outreach
171 for participation in programs created pursuant to clause (K) of paragraph (2) of subsection (b)
172 and make recommendations to energy efficiency advisory council on how to improve program
173 access and increase program deployment to individuals residing in affordable housing units.

174 (g) There shall be a low-income whole home retrofit task force to develop
175 recommendations for programs developed pursuant to clause (K) of paragraph (2) of subsection
176 (b). The taskforce shall consist of 12 members as follows: the director of housing and community
177 development, or a designee, who shall serve as chair; the commissioner of the department of
178 energy resources, or a designee; and 10 members appointed by the governor, 1 of whom shall be
179 a representative from the Low-Income Energy Affordability Network, 1 of whom shall a
180 representative from the energy efficiency advisory council established in section 22, 1 of whom
181 shall be from the Income-Eligible Best Practices Committee of the energy efficiency advisory
182 council, 1 of whom shall be a representative from the Massachusetts Housing Finance Agency, 1
183 of whom shall be from the Greater Boston Labor Council,; 1 of whom shall be a representative
184 from a non-profit with expertise in community organizing, affordable housing and labor issues, 1
185 of whom shall be from an organization with expertise in housing displacement prevention and

186 tenant rights, 1 of whom shall be an organization with expertise in enhancing the urban
187 environment and public health, 1 of whom shall be from an organization with expertise in
188 enhancing the rural environment and public health and 1 of whom shall be an organization with
189 expertise in environmental justice and transit-oriented development. The task force shall submit
190 recommendations to the energy efficiency advisory council to review every 3 years as part the
191 council’s review of energy efficiency investment plans under this section.

192 (h) Funds may be expended to cover up to the full cost of projects in clause (K) of
193 paragraph (2) of subsection (b) that are located within environmental justice communities;
194 provided, that the expenditure of funds for projects in said clause (K) of said paragraph (2) of
195 said subsection (b) shall be in addition to and shall not reduce low-income program funds
196 allocated in subsection (c) of section 19; and provided further that the annual household income
197 of such households is not more than 80 per cent of statewide median income, as determined by
198 the low-income weatherization and fuel assistance program network.

199 SECTION 14A. Subsection (a) of section 11F of chapter 25A, as so appearing, is hereby
200 amended by striking out, in line 18 and 19, the words “2029; and (5)” and inserting in place
201 thereof the following words:- 2024; (4) an additional 3 per cent of sales each year thereafter until
202 December 31, 2029; and (5).

203 SECTION 15. Chapter 25A of the General Laws, as so appearing, is hereby amended by
204 inserting after section 11F½ the following section:-

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

207 (b) A Municipal Lighting Plant GGES shall set the minimum percentage of non-carbon
208 emitting energy sold by each municipal lighting plant to all retail end-user customers purchasing
209 electricity pursuant to rates established pursuant to section 58 of chapter 164 as follows: (i) 50
210 per cent non-carbon emitting energy by 2030; (ii) 75 non-carbon emitting energy per cent by
211 2040; and (iii) energy sales achieving net-zero greenhouse gas emissions by 2050.

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

213 (i) energy from facilities using the following generation technologies, but only to the
214 extent that any renewable energy credits, emission free energy certificates or other evidentiary
215 non-carbon emitting documentation associated therewith have not been sold, retired, claimed or
216 otherwise represented by another party as part of electrical energy output or sales or used to
217 satisfy obligations in jurisdictions other than the commonwealth: (1) solar photovoltaic; (2) solar
218 thermal electric; (3) hydroelectric, including imports into the New England wholesale electric
219 market as administered by ISO New England Inc.; (4) nuclear; (5) marine or hydrokinetic
220 energy; (6) geothermal energy; (7) landfill methane; (8) anaerobic digester gas; (9) biomass fuel;
221 (10) wind energy; and (11) any other generation qualifying for renewable portfolio standards
222 pursuant to section 11F or the department of environmental protection’s clean energy standard
223 regulation pursuant to 310 C.M.R. 7.75 ;

224 (ii) generation that has net lifecycle GHG emissions, over a 20 year life cycle, that yield
225 at least a 50 per cent reduction of greenhouse gas emissions per unit of useful energy relative to
226 the lifecycle greenhouse gas emissions from the aggregate use of the operation of a new
227 combined cycle natural gas electric generating facility using the most efficient commercially

228 available technology as of the date of the statement of qualification application to the department
229 of environmental protection for the portion of electricity delivered by the generation unit;

230 (iii) clean energy credits such as renewable energy certificates, emission free energy
231 certificates or other evidentiary non-carbon emitting documentation derived from each megawatt
232 hour of generation from a resource, that are produced, documented or classified in the NEPOOL
233 GIS that have not otherwise been, nor will be, sold, retired, claimed or represented as part of
234 electrical energy output or sales, or used to satisfy obligations in jurisdictions other than the
235 commonwealth;

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

237 (v) any combination of clauses (i) to (iv).

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

243 (e) A municipal lighting plant shall file an annual report with the department, using a
244 form specified by the department, demonstrating compliance with this section. If a municipal
245 lighting plant fails to comply with the requirements of this section, it shall make a one-time
246 alternative compliance payment, to be known as the “Municipal Lighting Plant ACP” for the
247 year of non-compliance, and on the anniversary of each year that said non-compliance continues
248 thereafter, in the amount 0.25 times the Renewable Portfolio Standard ACP set forth in the
249 department’s regulations at 225 C.M.R. 14.00 et seq. per kilowatt hour based on the amount of

250 such deficiency, escalated annually by the Consumer Price Index, but in no event shall said ACP
251 exceed \$0.010 per kilowatt hour. Such Municipal Lighting Plant ACP shall be deposited into a
252 fund that shall be maintained and administered by the municipal light plant and such fund shall
253 be used by the municipal light plant to fund greenhouse gas emissions reduction and related
254 programs in its service territory.

255 SECTION 15A. Section 93 of chapter 143, as so appearing, is hereby amended by
256 striking out, in line 6, the word “eleven” and inserting in place thereof the following:- 15.

257 SECTION 15B. Said section 93 of chapter 143 is hereby further amended by striking out,
258 in lines 8 and 9, the words “both of whom shall serve” and inserting in place thereof following
259 words:-one of whom shall be the commissioner of the department of energy resources, or their
260 designee, all of whom who shall serve”.

261 SECTION 15C. Said section 93 of said chapter 143, as so appearing, is hereby further
262 amended by striking out, in line 9 , the word “nine” and inserting in place thereof the following
263 figure:- 12.

264 SECTION 15D. Said section 93 of said chapter 143, as so appearing, is hereby further
265 amended by inserting after the word “department”, in line 17 , the following words:- , one of
266 whom shall be an expert in commercial building energy efficiency, one of whom shall be an
267 expert in residential building energy efficiency, one of whom shall be an expert in advanced
268 building technology,.

269 SECTION 15E. Said section 93 of chapter 143 is hereby further amended by inserting
270 after the word “reappointment”, in lines 26 and 27, the following words:- for a second term, but
271 shall not serve more than 10 total years.

272 SECTION 15F. Said section 93 of chapter 143 is hereby further amended by inserting
273 after the word “years”, in line 37, the following words:- or more than 4 years total.

274 SECTION 15G. Section 5 of chapter 59 of the General Laws, as so appearing, is hereby
275 amended by striking out clause Forty-fifth and inserting in place thereof the following clause:-

276 Forty-fifth, Any solar or wind powered system that is capable of producing not more than
277 125 per cent of the annual energy needs of the residential real property upon which it is located.

278 Any other solar or wind powered system capable of producing energy shall be taxable
279 unless the owner has executed an agreement for a payment in lieu of taxes with the city or town
280 where the system is located. The chief executive officer, as defined in section 7 of chapter 4, of a
281 city or town may execute any such agreement for a payment in lieu of taxes with the owner of a
282 solar or wind powered system in the municipality where the solar or wind powered system is
283 located.

284 Unless otherwise provided by such agreement, (1) a notice of the payment in lieu of taxes
285 owed for each fiscal year shall be mailed to the owner and due on the dates by which a tax
286 assessed under this chapter would be payable without interest; (2) all provisions of law regarding
287 billing and collecting a tax assessed under this chapter shall apply to the payment in lieu of taxes,
288 including the payment of interest; and (3) upon issuance of the notice, the owner shall have the
289 remedies provided by section 59 and section 64 and all other applicable provisions of law for the
290 abatement and appeal of taxes upon real estate.

291 Any exemption pursuant to this clause shall be allowed for a period of not more than 20
292 years from the date of installation of the system; provided, however, that no exemption shall be
293 allowed for any year within that period where the solar or wind powered system is not capable of

294 producing energy as required by this clause. Each owner shall annually, on or before March 1,
295 make a declaration under oath to the assessors regarding the system and power generated for the
296 previous calendar year. This clause shall not apply to projects developed pursuant to section 1A
297 of chapter 164.

298 SECTION 15H. Section 1A of chapter 164 of the General Laws, as so appearing, is
299 hereby amended by adding a new subsection:-

300 (g) Municipalities, including those with environmental justice populations, at high risk
301 from the effects of climate change may approve 1 or more solar energy projects owned and
302 operated by an electric or gas distribution company constructing, owning and operating
303 generation facilities on land owned therein, which is paired, where feasible, with energy storage
304 facilities designed to improve community climate adaptation and resiliency or contribute to the
305 commonwealth meeting its carbon emissions limits established in section 3 of chapter 21N.
306 Prior to project approval under this section, electric and gas distribution companies shall conduct
307 an outreach program to promote the development of solar energy projects in environmental
308 justice communities and to create program goals, including but not limited to job creation, peak
309 demand reduction and system resiliency. Municipalities with environmental justice populations
310 shall receive a preference for participation in such projects.

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

316 Notwithstanding sections 1B to 1H of chapter 164, inclusive, electric and gas distribution
317 companies may be eligible to assist a municipality at high risk from the effects of climate change
318 in furthering its climate adaptation and resiliency goals by constructing, owning and operating
319 solar generation facilities paired, where feasible, with energy storage facilities on land owned by
320 the electric or gas distribution company within a municipality, including those with
321 environmental justice communities, at no cost to the municipality, provided that such facilities
322 may receive department approval for cost recovery. Such company shall not construct, own or
323 operate new facilities equaling more than 10 per cent of the total installed megawatt capacity of
324 solar generation facilities in the commonwealth as of July 31, 2020.

325 Projects undertaken on behalf of a municipality for construction of utility-owned solar
326 facilities shall be exempt from the prohibition on utility owned generation, subject to review and
327 approval by the department of public utilities. The department may review municipal petitions
328 for development of utility-owned solar facilities and may allow cost recovery upon a showing
329 that a site-specific development would provide environmental or climate change benefits to the
330 community, municipality or to the commonwealth, or both in combination, warranting a site-
331 specific exemption, and that the costs of the project are reasonable.

332 Affirmation of support by a municipality shall be presented to the department by an
333 electric or gas distribution company in any petition for pre-approval of cost recovery for a solar
334 energy generating facility and energy storage facility, where deemed feasible, and the department
335 shall determine whether the proposal is consistent with the commonwealth's energy policies,
336 contributes to the climate change resiliency of the host municipality and mitigates peak energy
337 demand. In approving any such proposal, the department shall: (1) provide the criteria applied in
338 reviewing the proposal; (2) provide the evidence provided in support of the proposal and relied

339 on by the department in making its decision; and (3) identify the specific contributions to the
340 commonwealth’s energy policies that will be attributable to the proposed facility and
341 demonstrate the analytical foundation for the department’s approval of utility owned solar
342 facilities.

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

345 SECTION 15I. Section 5 of chapter 59 of the General Laws, as so appearing is hereby
346 amended by striking out, in line 13, the words “or Forty-fifth” and inserting in place thereof the
347 following words:- , Forty-fifth or Forty-fifth B.

348 SECTION 15J. Said section 5 of said chapter 59, as so appearing, is hereby further
349 amended by inserting after clause Forty-fifth A the following clause:-

350 Forty-fifth B, Any qualified fuel cell powered system, the construction of which was
351 commenced after January 1, 2020, that is capable of producing not more than 125 per cent of the
352 annual energy needs of the real property upon which it is located, which shall include contiguous
353 or non-contiguous real property owned or leased by the owner. Any other qualified fuel cell
354 powered system shall be exempt provided that the owner has made to the city or town where the
355 system is located a payment in lieu of taxes. A city or town, acting through the board or officer
356 authorized by its legislative body, may execute an agreement for the payment in lieu of taxes
357 with the owner of a qualified fuel cell powered system in the municipality where the qualified
358 fuel cell powered system is located. Unless otherwise provided by such agreement, (1) a notice
359 of the payment in lieu of tax owed for each fiscal year shall be mailed to the owner and due on
360 the dates by which a tax assessed under this chapter would be payable without interest; (2) all

361 provisions of law regarding billing and collecting a tax assessed under this chapter shall apply to
362 the payment in lieu of taxes, including the payment of interest; and (3) upon issuance of the
363 notice, the owner shall have the remedies provided by section 59, section 64 and all other
364 applicable provisions of law for the abatement and appeal of taxes upon real estate. An
365 exemption under this clause shall be allowed only for a period of 20 years from the date of
366 completion of the construction of the qualified fuel cell powered system; provided, however, that
367 no exemption shall be allowed for any year within that period when the qualified fuel cell
368 powered system is not capable of producing energy as required by this clause. Each owner shall
369 annually, on or before March 1, make a declaration under oath to the assessors regarding the
370 system and power generated for the previous calendar year. This clause shall not apply to
371 projects developed under section 1A of chapter 164.

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

378 SECTION 15K. Subsection (b) of section 38H of said chapter 59, as so appearing, is
379 hereby amended by inserting after the first sentence the following sentence:- For purposes of this
380 subsection, a generation facility shall not include a facility powered by a qualified fuel cell
381 powered system, as defined in clause Forty-fifth B of section 5, to generate electricity.

382 SECTION 15L. Section 2 of chapter 25B of the General Laws, as appearing in the 2016
383 Official Edition, is hereby amended by inserting after the definition of “Central furnace” the
384 following 6 definitions:-

385 “Color rendering index” or “CRI”, the measure of the degree of color-shift objects
386 undergo when illuminated by a light source as compared to the color of those same objects when
387 illuminated by a reference source of comparable color temperature.

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

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

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

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

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

407 SECTION 15M. Said section 2 of said chapter 25B, as so appearing, is hereby further
408 amended by inserting after the definition of “Compensation” the following 3 definitions:-

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

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

413 “Electric vehicle supply equipment” means the conductors, including the ungrounded,
414 grounded, and equipment grounding conductors, the electric vehicle connectors, attachment
415 plugs, and all other fittings, devices, power outlets, or apparatuses installed specifically for the
416 purpose of delivering energy from the premises wiring to the electric vehicle. Charging cords
417 with NEMA 5-15P and NEMA 5-20P attachment plugs are considered electric vehicle supply
418 equipment. Excludes conductors, connectors, and fittings that are part of a vehicle.

419 SECTION 15N. 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 15O. Said section 2 of said chapter 25B, as so appearing, is hereby further
422 amended by inserting after the definition of “Electricity Ratio (ER)” the following 2 definitions:-

423 “Faucet”, a lavatory faucet, kitchen faucet, metering faucet, public lavatory faucet, or
424 replacement aerator for a lavatory or kitchen faucet.

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

426 SECTION 15P. Said section 2 of said chapter 25B, as so appearing, is hereby further
427 amended by inserting after the definition of “F96T12 Lamp” the following 5 definitions:-

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

429 “State-regulated general service lamp” includes the following:

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

433 (2) Incandescent reflector lamps that are:

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

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

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

437 (3) Incandescent lamps that are:”

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

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

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

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

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

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

447 SECTION 15Q. Said section 2 of said chapter 25B, as so appearing, is hereby further
448 amended by inserting after the definition of “New appliance” the following 4 definitions:-

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

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

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

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

456 SECTION 15R. Said section 2 of said chapter 25B, as so appearing, is hereby further
457 amended by inserting after the definition of “Probe-start metal halide ballast” the following
458 definition:-

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

461 SECTION 15S. Said section 2 of said chapter 25B, as so appearing, is hereby further
462 amended by inserting after the definition of “Refrigerator-freezer” the following definition:-

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

465 SECTION 15T. Said section 2 of said chapter 25B, as so appearing, is hereby further
466 amended by inserting after the definition of “Residential furnace or boiler” the following 2
467 definitions:-

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

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

473 SECTION 15U. Said section 2 of said chapter 25B, as so appearing, is hereby further
474 amended by inserting after the definition of “Single-voltage external AC to DC power supply”
475 the following 2 definitions:-

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

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

479 SECTION 15V. Said section 2 of said chapter 25B, as so appearing, is hereby further
480 amended by inserting after the definition of “State plumbing code” the following definition:-

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

484 SECTION 15W. Said section 2 of said chapter 25B, as so appearing, is hereby further
485 amended by inserting after the definition of “Transformer” the following 4 definitions:-

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

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

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

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

494 SECTION 15X. Said section 2 of said chapter 25B, as so appearing, is hereby further
495 amended by inserting after the definition of “Water heater” the following definition:-

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

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

500 (k) commercial hot-food holding cabinets.

- 501 (l) computers and computer monitors.
- 502 (m) state-regulated general service lamps.
- 503 (n) high CRI fluorescent lamps.
- 504 (o) plumbing fittings.
- 505 (p) plumbing fixtures.
- 506 (q) portable electric spas.
- 507 (r) water coolers.
- 508 (s) residential ventilating fans
- 509 (t) commercial ovens
- 510 (u) commercial dishwashers
- 511 (v) commercial fryers
- 512 (w) commercial steam cookers
- 513 (x) spray sprinkler bodies
- 514 (y) electric vehicle supply equipment

515 SECTION 15Z. Section 5 of said chapter 25B, as so appearing, is hereby amended by
516 striking out the words, in line 24, “clauses (f) to (s)” and inserting in place thereof the following
517 words:- clauses (f) to (y).

518 SECTION 15AA. The third paragraph of said section 5 of said chapter 25B, as so
519 appearing, is hereby amended by adding after clause (5) the following clauses:-

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

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

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

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

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

537 (9) High CRI, fluorescent lamps shall meet the minimum efficiency requirements
538 contained in Section 430.32(n)(4) of Title 10 of the Code of Federal Regulations as in effect on

539 January 3, 2019, when tested in accordance with the test procedure prescribed in Appendix R to
540 Subpart B of Part 430 of Title 10 of the Code of Federal Regulations as in effect on January 3,
541 2019:

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

543 (a) When tested in accordance with the flow rate test procedure prescribed in Appendix S
544 to Subpart B of Part 430 of Title 10 of the Code of Federal Regulations: the flow rate of lavatory
545 faucets and replacement aerators shall not be greater than 1.5 gallons per minute (hereafter
546 referred to as gpm) at 60 pounds per square inch (hereafter referred to as psi); for sprayheads
547 with independently controlled orifices and manual controls, the maximum flow rate of each
548 orifice that manually turns on or off shall not exceed the maximum flow rate for a lavatory
549 faucet; and 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 (b) 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; and

557 (c) 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;

560 (d) 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 (a)(ii)(A) through (a)(ii)(D) 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.

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.

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
577 Standard 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
601 WaterSense Specification for Spray Sprinkler Bodies, Version 1.0, shall include an integral
602 pressure regulator and shall meet the water efficiency and performance criteria and other
603 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 15BB. 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 On or after January 1, 2022, no new, commercial dishwasher, commercial fryer,
610 commercial hot-food holding cabinet, commercial oven, commercial steam cooker, computer or
611 computer monitor, electric vehicle supply equipment, faucet, high CRI fluorescent lamp, ,
612 portable electric spa, residential ventilating fan, showerhead, spray sprinkler body, urinal, water
613 closet, or water cooler may be sold or offered for sale, lease, or rent in the state unless the
614 efficiency of the new product meets or exceeds the efficiency standards set forth in the
615 regulations adopted pursuant to Section 16.

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

619 SECTION 15CC. Section 9 of said chapter 25B, as so appearing, is hereby amended by
620 inserting after the first paragraph the following paragraph:-

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

628 SECTION 15DD. Said chapter 82, as so appearing, is hereby amended by striking out
629 section 40E, and inserting in place thereof the following section:-

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

635 SECTION 15EE. Section 185 of chapter 149 of the General Laws, as so appearing, is
636 hereby amended by inserting, after the definition of “public body” the following definition:-

637 (3½) “Public utility employer,” a gas and electricity public utility provider.

638 SECTION 15FF. Said section 185 of said chapter 149, as so appearing, is hereby further
639 amended by inserting in lines 4, 20, 24, 29, 32 to 33, 33, 42, 43, 57, 61, 79, 84, 88, 89, 97, 99, and
640 103 after the word “employer” in each instance, thereof the following:- or public utility
641 employer.

642 SECTION 15GG. Said section 185 of said chapter 149, as so appearing, is hereby further
643 amended by inserting in lines 33 to 34 and 44 after the word "relationship," in each instance
644 thereof the following:- including private contractors hired to perform work customarily
645 performed by employees of public utility employers,.

646 SECTION 15HH. Section 1E of chapter 164 of the General Laws, as so appearing, is
647 hereby amended in line 12 by inserting after the word "levels" the following:- , public safety
648 measures,.

649 SECTION 15II. Section 1F of said chapter 164, as so appearing, is hereby amended by
650 adding the following:-

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

656 SECTION 15JJ. Section 1J of chapter 164 of the General Laws, as so appearing, is
657 hereby amended by striking out, in line 5, the figure "250,000" and inserting in place thereof the
658 following figure:- 500,000.

659 SECTION 15KK. Said section 1J of said chapter 164, as so appearing, is hereby further
660 amended by striking out, in line 8, the figure "20,000,000" and inserting in place thereof the
661 following figure:-50,000,000.

662 SECTION 15LL. Section 105A of said chapter 164, as so appearing, is hereby amended
663 by striking out, in lines 21 to 23, inclusive, the words "as specified in 49 U.S.C. section
664 60122(a)(1) or any successor statute enacted into federal law for the same purposes as said
665 section 60122(a)(1)" and inserting in place thereof the following words:- of not more than
666 \$500,000 for each violation; provided, however, that the maximum civil penalty under this
667 section for a related series of violations shall be \$10,000,000; and, provided further that the
668 dollar limits in this sentence shall be doubled in the event that the department determines that the
669 violator has engaged in one or more similar violations in the three years preceding the violation.
670 A separate violation occurs for each day the violation continues.

671 SECTION 15MM. Said Chapter 164 of the General Laws, as so appearing, is hereby
672 amended by inserting after section 115A, the following 3 sections:

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

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

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

687 SECTION 15NN. Section 62 of chapter 30 of the General Laws, as so appearing is
688 hereby amended by inserting after the definition of “Agency” the following 5 definitions:-

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

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

703 "Environmental justice population", a neighborhood that meets 1 or more of the
704 following criteria: (i) the annual median household income is not more than 65 per cent of the

705 statewide annual median household income; (ii) minorities comprise 40 per cent or more of the
706 population; (iii) 25 per cent or more of households lack English language proficiency; or (iv)
707 minorities comprise 25 per cent or more of the population and the annual median household
708 income of the municipality in which the neighborhood is located does not exceed 150 per cent of
709 the statewide annual median household income; provided, however, that for a neighborhood that
710 does not meet said criteria, but a geographic portion of that neighborhood meets at least
711 1 criterion, the secretary may designate that geographic portion as an environmental justice
712 population upon the petition of at least 10 residents of the geographic portion of that
713 neighborhood meeting any such criteria. The secretary may determine that a neighborhood,
714 including any geographic portion, shall not be designated an environmental justice population
715 upon finding the annual median household income of that neighborhood is greater than 125 per
716 cent of the statewide median household income; a majority of persons age 25 and older in that
717 neighborhood have a college education; the neighborhood does not bear an unfair burden of
718 environmental pollution; and has more than limited access to natural resources, including open
719 spaces and water resources, playgrounds and other constructed outdoor recreational facilities and
720 venues.

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

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

731 SECTION 1500. Section 62B of said chapter 30, as so appearing, is hereby amended by
732 striking out the first sentence of the third paragraph and inserting, in place thereof, the following
733 sentence:-

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

740 SECTION 15PP. Said section 62B of said chapter 30, as so appearing, is hereby further
741 amended by adding the following paragraph:-

742 An environmental impact report shall be required for any project that is likely to cause
743 damage to the environment that is not insignificant and is located within a distance of 1 mile of
744 an environmental justice population; provided, that for a project that impacts air quality, such
745 environmental impact report shall be required if the project is likely to cause damage to the
746 environment that is not insignificant and is located within a distance of 5 miles of an
747 environmental justice population. Said report shall contain statements about the results of an
748 assessment of any existing unfair or inequitable environmental burden and related public health
749 consequences impacting the environmental justice population from any prior or current, private,

750 industrial, commercial, state, or municipal operation or project that has damaged the
751 environment. The required assessment shall conform to the standards and guidelines established
752 by the secretary. If the assessment indicates an environmental justice population is subject to an
753 existing unfair or inequitable environmental burden or related health consequence the report shall
754 identify any: (i) environmental and public health impact from the proposed project that would
755 likely result in a disproportionate adverse effect on such population, and (ii) potential impact or
756 consequence from the proposed project that would increase or reduce the effects of climate
757 change on the environmental justice population. The secretary may require that an assessment be
758 performed at any stage of the review process.

759 SECTION 15QQ. Section 62E of said chapter 30, as so appearing, is hereby amended by
760 adding the following paragraph:-

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

766 SECTION 15RR. Chapter 30 of the General Laws is hereby amended by adding after
767 section 62I the following 2 sections:-

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

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

776 If a proposed project is significant and affects an environmental justice population, the
777 secretary shall require additional measures to improve public participation by the environmental
778 justice population. Such measures shall include, as appropriate: (i) making public notices,
779 environmental notification forms, environmental impact reports, and other key documents related
780 to the secretary's review and decisions of a project review available in English and any other
781 language spoken by a significant number of the affected environmental justice population; (ii)
782 providing translation services at public meetings for a significant portion of an affected
783 environmental justice population that lacks English proficiency in the project's designated
784 geographic area; (iii) require public meetings be held in accessible locations that are near public
785 transportation; (iv) provide appropriate information about the project review procedure for the
786 proposed project; and (vi) where feasible, establish a local repository for project review
787 documents, notices and decisions.

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

792 As used in this section, the term designated geographic area shall mean an environmental
793 justice population located within a distance of 1 mile of a project, unless the project affects air

794 quality then the distance from such project shall be increased to within 5 miles of an
795 environmental justice population.

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

800 To further the environmental justice principles the secretary shall direct its agencies,
801 including the departments, divisions, boards and offices under the secretary's control and
802 authority, to consider the environmental justice principles in making any policy, determination or
803 taking any other action related to a project review, or in undertaking any project, under said
804 sections and related regulations which is likely to affect environmental justice populations.

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

808 Section 62L. There shall be an environmental justice council to advise and provide
809 recommendations to the secretary of energy and environmental affairs on relevant policies and
810 standards to achieve the environmental justice principles. The council shall consist of at least 9,
811 but not more than 15 fifteen members appointed by the governor, who shall designate a chair.
812 Members may be removed without cause, by the governor. All members shall serve without
813 compensation.

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

817 The environmental justice council shall conduct a comprehensive analysis by no later
818 than July 31, 2022 and thereafter, every fifth year, to ensure the definition of environmental
819 justice population in section 62 achieves the objectives of the environmental justice principles.
820 The analysis shall include, but not be limited to, an evaluation of this definition as compared to
821 the demographics of environmental justice populations in the commonwealth. As part of the
822 analysis, said council shall provide advice and make recommendations to the secretary on any
823 necessary changes to the percentage thresholds included in this definition and any related
824 regulation. The secretary shall consider the recommendations of the council regarding any
825 proposed changes to the percentage thresholds under this definition, provided however, such
826 changes are needed to achieve and promote the environmental justice principles as defined under
827 section 61. Proposed regulations shall be adopted only after the approval of the council by a
828 majority vote in the affirmative of those members so voting.

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

832 SECTION 16. Section 139 of chapter 164 of the General Laws, as appearing in the 2018
833 Official Edition, is hereby amended by striking out in lines 60 through 64, inclusive, the words
834 “A solar net metering facility may designate customers of the same distribution company to
835 which the solar net metering facility is interconnected and that are located in the same ISO-NE

836 load zone to receive such credits in amounts attributed by the solar net metering facility.” and
837 inserting in place thereof the following words:- A solar net metering facility may designate
838 customers of any distribution company located in the commonwealth to receive such credits in
839 amounts attributed by the solar net metering facility.

840 SECTION 17. Subsection (i) of said section 139 of said chapter 164, as so appearing, is
841 hereby amended by adding the following sentence:-A Class II net metering facility or Class III
842 net metering facility with an executed interconnection agreement with a distribution company on
843 or after January 1, 2021 shall be exempt from the aggregate net metering capacity of facilities
844 that are not net metering facilities of a municipality or other governmental entity under
845 subsection (f), and may net meter and accrue Class II or Class III net metering credits if it is
846 generating renewable energy and serves on-site load, other than parasitic or non-station load;
847 provided, that any credits accrued in excess of its annual electricity consumption for the period
848 running from April through the following March shall be credited or paid out for such excess
849 credits at the utility’s avoided cost rate.

850 SECTION 17A. Section 144 of said chapter 164, as so appearing, is hereby amended by
851 inserting the following subsections:

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

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

860 SECTION 17B. The fourth sentence of subsection (b) of section 83C of chapter 169 of
861 the acts of 2008, as appearing in section 12 of chapter 188 of the acts of 2016, is hereby amended
862 by striking out the figure “1,600” and inserting in place thereof the following figure:- 3,600.

863 SECTION 17C. The fifth sentence of said subsection (b) of said section 83C of said
864 chapter 169, as amended by chapter 48 of the acts of 2019, is hereby further amended by striking
865 out the figure “24”, as appearing in section 12 of chapter 188 of the acts of 2016, and inserting in
866 place thereof the following figure:- 18.

867 SECTION 17D. The sixth sentence of said subsection (b) of said section 83C of said
868 chapter 169, as appearing in said section 12 of said chapter 188, is hereby further amended by
869 inserting, after the word “resources”, the following words:- and the executive office of housing
870 and economic development.

871 SECTION 17E. Chapter 164 of the General Laws is hereby amended by striking out the
872 first sentence of paragraph (3) of subsection (b) of section 144, as so appearing, and inserting in
873 its place the following:

874 (3) A Grade 2 leak shall be a leak that is recognized as non-hazardous to persons or
875 property at the time of detection, but justifies scheduled repair based on probable future hazard.
876 The gas company shall repair Grade 2 leaks or replace the main within 6 months from the date
877 the leak was classified; provided, however, that said repair or replacement may take place later
878 than 6 months from the date the leak is classified, but no later than 12 months from the date the

879 leak is classified, if any required permits for such repair or replacement are temporarily withheld
880 consistent with a seasonal moratorium.

881 SECTION 17F. Said section 144 of said chapter 164, as so appearing, is hereby amended
882 by inserting after subsection (g), inserted by amendment 28, the following 3 subsections:-

883 (h) Each distribution company shall maintain an accurate and timely record of any Grade
884 3 leaks that, upon re-inspection, are upgraded to a Grade 1 or 2 leak. The department shall
885 establish a service quality metric for the same, and each distribution company shall report any
886 upgrades of Grade 3 leaks to the department on a monthly basis.

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

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

895 SECTION 17G. Section 145 of said chapter 164, as so appearing, is hereby amended by
896 striking out subsection (b) and inserting in place thereof the following subsection:-

897 (b) A gas company shall file with the department a plan to address aging or leaking
898 natural gas infrastructure within the commonwealth and the leak rate on the gas company's
899 natural gas infrastructure in the interest of public safety and reducing lost and unaccounted for

900 natural gas through a reduction in natural gas system leaks. Each company's gas infrastructure
901 plan shall include interim targets for the department's review. The department shall review these
902 interim targets to ensure each gas company is meeting the appropriate pace to reduce the leak
903 rate on and to replace the gas company's natural gas infrastructure in a safe and timely manner.
904 The interim targets shall be for periods of not to exceed five years. The gas companies shall
905 incorporate these interim targets into timelines for removing all leak-prone infrastructure filed
906 pursuant to subsection(c) and may update them based on overall progress. The department may
907 levy a penalty against any gas company that fails to meet its interim target in an amount up to
908 and including the equivalent of 2.5 per cent of such gas company's transmission and distribution
909 service revenues for the previous calendar year.

910 SECTION 17H. Section 145 of chapter 164 of the General Laws, as so appearing, is
911 hereby amended in line 33 by striking the words “and (vi) any other information the department
912 considers necessary to evaluate the plan.”, and inserting in place thereof - (vi) the relocations of a
913 meter located inside of a structure to the outside of said structure for the purpose of improving
914 public safety; and (vii) any other information the department considers necessary to evaluate the
915 plan.

916 SECTION 17I. Subsection (c) of said section 145 of said chapter 164, as so appearing, is
917 hereby amended by striking out the first sentence of the second paragraph and inserting in place
918 thereof the following sentence:-

919 As part of each plan filed under this section, a gas company shall include a timeline for
920 removing all leak-prone infrastructure on an accelerated basis specifying an annual replacement
921 pace and program end date with a target end date of either (i) not more than 20 years from the

922 filing of a gas company's initial plan, or (ii) a reasonable target end date considering the
923 allowable recovery cap established pursuant to subsection (f).

924 SECTION 18. Section 16 of chapter 298 of the acts of 2008 is hereby amended by
925 striking out the words “, and shall expire on December 31, 2020”.

926 SECTION 19. Notwithstanding any general or special law, rule or regulation to the
927 contrary, when initiating a regulatory process for any new solar incentive program developed by
928 the department of energy resources pursuant to section 11 of chapter 75 of the acts of 2016 or
929 any other general or special law or other authority, the department shall to the greatest extent
930 feasible: (1) provide equitable access to all Massachusetts ratepayers, including low-income
931 ratepayers; (2) address solar energy access and affordability for low-income communities; (3)
932 include effective consumer protection provisions; and (4) ensure that information about the
933 program and its benefits are provided in a readily accessible manner to all ratepayers, including
934 non-English speaking communities. The department shall consult with a diverse range of
935 stakeholders to inform the design of any such solar incentive program, including low-income
936 ratepayers and organizations representing their interests.

937 SECTION 20. (a) The department of public utilities shall establish a future utility grid
938 commission for the purpose of studying and making recommendations regarding the
939 establishment of a long-term grid modernization plan to facilitate upgrades to the electric and gas
940 distribution systems located in the commonwealth, including but not limited to: (i) infrastructure
941 and system investments necessary to implement the state’s clean energy and climate change
942 requirements; (ii) clean energy and energy storage deployment targets and incentive programs;
943 (iii) the state’s clean energy and climate plans and emission reduction requirements set by

944 chapter 21N of the General Laws; and (iv) transitioning in the commonwealth from energy
945 derived from fossil fuels to energy derived from clean, non-emitting renewable sources, in order
946 to reach net zero statewide greenhouse gas emissions by 2050.

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

956 (c) The commission shall examine whether the department should implement a system
957 planning process for electric and gas distribution systems that shall: (i) create a technical
958 foundation to understand the physical and electrical state of current grid infrastructure including
959 existing and planned interconnection projects as well as future scenarios; (ii) analyze the
960 evaluation and approval process for infrastructure investment proposals from distribution
961 companies that meet the department's requirements to maintain the safety and reliability of the
962 distribution system, minimize costs to ratepayers, and comply with the state's clean energy and
963 climate change requirements outlined in subsection (a); (iii) determine a method for dispute
964 resolution for interconnecting distributed generation facilities to the electric distribution system
965 conducted by the department; (iv) determine an appropriate cost recovery mechanism for electric
966 and gas distribution companies to deploy necessary upgrades approved by the department; (v)

967 determine an appropriate penalty structure that applies to the interconnection process to ensure
968 the timely deployment of distributed generation facilities; and (vi) examine opportunities to
969 increase deployment of energy storage systems that facilitate the state's ability to comply with its
970 clean energy and climate change requirements.

971 (d) The commission shall consist of 21 members or their designees: the secretary of
972 energy and environmental affairs or a designee, who shall serve as chair; the chair of the
973 department of public utilities or a designee; the commissioner of the department of energy
974 resources or a designee; the commissioner of the department of environmental protection or a
975 designee; the chief executive officer of the Massachusetts clean energy technology center
976 established pursuant to section 2 of chapter 23J of the General Laws or a designee; the attorney
977 general in the role of the commonwealth's ratepayer advocate or a designee; and 15 members
978 who shall be appointed by the chair: 1 of whom shall be a representative from the distributed
979 energy generation industry; 1 of whom shall be a representative from the energy storage
980 industry; 1 of whom shall be a representative from the offshore wind electric generation industry;
981 1 of whom shall be a representative from a higher education institution with expertise in utility
982 engineering; 3 of whom shall be a representative from each of the electric distribution companies
983 located in the commonwealth; 1 of whom shall be a municipal official to be nominated by the
984 Massachusetts Municipal Association, Inc.; 3 of whom shall be representatives from
985 environmental organizations; 1 of whom shall be a representative from the business community;
986 1 of whom shall be a representative from an organization that serves low-income ratepayers; 1 of
987 whom shall be a representative from a regional planning agency; and 1 of whom shall be a
988 representative from the executive office of energy and environmental affairs' global warming
989 solutions act implementation advisory committee. The commission may request from all state

990 agencies such information and assistance as the commission may require and may retain
991 consultants as necessary.

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

998 SECTION 20A. There shall be a land use commission to develop recommendations on
999 land use restrictions within the Solar Massachusetts Renewable Target (SMART) Program. The
1000 commission shall develop recommendations on developing land use policies to encourage
1001 conservation of open space, farm and forestlands in a responsible manner. The commission shall
1002 review the negative impacts of the SMART program on the development of solar facilities in the
1003 commonwealth and consider the economic viability of farmlands, forest management practices
1004 and the balance of farm preservation through utilization of solar as an economic tool. The
1005 commission shall also consider the social value of community solar projects and best practices
1006 for carbon sequestration.

1007 The commission shall consist of 13 members appointed by the governor; the
1008 commissioner of the department of energy resources or a designee, who shall serve as chair; the
1009 executive director of the Massachusetts Municipal Association or a designee; the executive
1010 director of the Massachusetts Farm Bureau or a designee; the executive director of the
1011 Massachusetts Forest Alliance or a designee; the executive director of the Massachusetts

1012 Cranberry Growers Association or a designee; 1 member of an environmental organization; 1
1013 member of a conservation group; 1 member from a business that develops solar facilities, 1
1014 member of the community shared solar group; 1 member who is an owner of an active farm; 1
1015 member with experience working with low-income communities on community shared solar
1016 programs, 1 member of a local or regional land trust organization, and 1 member from the
1017 Natural Heritage and Endangered Species Program.

1018 The department of energy resources shall provide assistance and shall staff the
1019 commission meetings. The commission members shall serve without compensation. The
1020 commission shall file a report with the house and senate committees on ways and means and the
1021 joint committee on telecommunications, utilities and energy not later than July 1, 2021.

1022 SECTION 20B. The department of public utilities may, upon application of a gas
1023 company, as defined in section 1 of chapter 164 of the General Laws, authorize 1 or more pilot
1024 projects for the development of utility-scale renewable thermal energy, including non-carbon
1025 emitting technologies for energy savings and energy storage. Such application shall be filed with
1026 the department on or before January 1, 2023. The department may approve recovery of costs for
1027 pilot projects situated in the commonwealth that demonstrate the costs and benefits of: (i) utility-
1028 scale renewable thermal energy sources, systems or technologies capable of substituting for
1029 fossil-based natural gas; or (ii) utility-scale renewable thermal energy replacements for, or
1030 alternative uses of, infrastructure constructed originally to generate, transmit or distribute fossil-
1031 based natural gas; provided, however, that such substitute renewable thermal energy sources,
1032 systems or technologies, and such replacements or alternative uses, have a reasonable likelihood
1033 of facilitating substantial reductions in greenhouse gas emissions that satisfy the mandates of
1034 greenhouse gas reductions set forth in chapter 21N of the General Laws; and provided further,

1035 that the pilots shall not include the blending of other fuels with fossil-based natural gas. The
1036 department may approve a pilot project in a gas system enhancement plan as replacement for
1037 leak prone infrastructure submitted pursuant to section 145 of chapter 164. The department may
1038 permit a gas company to bill for thermal energy developed by a pilot project. The department
1039 shall ensure transparency and validity of the outcomes of the pilot projects through a third-party
1040 evaluation and through reports by the department of energy resources. In determining whether to
1041 approve a pilot project, the department shall consider the reasonableness of the size, scope and
1042 scale of the pilot project and related budget and whether the benefits of the proposed pilot justify
1043 the proposed cost to participating and non-participating customers; provided, however, that the
1044 calculation of benefits shall include calculations of the social value of greenhouse gas emissions
1045 reductions. The department may promulgate rules or regulations to implement this section.

1046 SECTION 20C. Not later than 6 months after the effective date of this act, the department
1047 of energy resources shall publish a guide to assist cities and towns to develop programs that
1048 allow residents unable to install off-street electric vehicle charging stations to install curbside
1049 electric vehicle charging stations proximate to their residences.

1050 SECTION 20D. The secretary of energy and environmental affairs shall conduct and
1051 publish the results of quantitative modeling and analysis of the commonwealth's direct and
1052 indirect emissions, as defined in section 1 of chapter 21N of the General Laws, for any direct or
1053 indirect emissions for which no such quantitative modeling and analysis exists as of December
1054 31, 2021, and publish such results no later December 31, 2022.

1055 SECTION 20E. The department of energy resources, in consultation with the
1056 Massachusetts clean energy center and the carbon reduction research center, shall study the

1057 feasibility of optimizing the deployment and utilization of both new and existing long-duration
1058 energy storage systems in the commonwealth capable of absorbing energy, storing it for a period
1059 of time and thereafter dispatching the energy for a minimum period of five hours or greater. The
1060 goal of said systems would be to a) enhance the reliable delivery of electricity to Massachusetts
1061 consumers; b) improve the reliability and integration of intermittent renewable energy or clean
1062 energy generation; c) reduce carbon emissions; and d) minimize ratepayer costs. The study shall
1063 determine the commercial availability of said systems, including performance under frequent
1064 deployment, barriers to deployment or utilization, and incentives that could facilitate their
1065 deployment or utilization. The department of energy resources shall submit recommendations to
1066 the clerks of the house of representatives and senate and to the house and senate chairs of the
1067 joint committee on telecommunications, utilities, and energy no later than March 1, 2021.

1068 SECTION 20F. The department of energy resources shall study the feasibility of ferry
1069 operators located in the commonwealth to convert vessel fleets to electric and hybrid electric
1070 ferries by 2050 to comply with the requirements of chapter 21N of the General Laws. The study
1071 shall investigate: (i) the technology necessary to accomplish the transition to electric or hybrid
1072 electric ferry service; (ii) the availability of such technology; (iii) costs and benefits of making
1073 such transition, the analysis shall include but not be limited to the cost of negative externalities
1074 associated with greenhouse gas emissions; (iv) the feasibility of ferry operators to make such
1075 transition and any operational or infrastructure limitations to such transition; (v) the availability
1076 of technical assistance or other private or public programs to facilitate the transition to electric or
1077 hybrid electric ferry service and (vi) the operations of electric ferries already in service in Europe
1078 and elsewhere in the world. The department shall make recommendations of a timeline for
1079 Massachusetts ferry operators to transition to electric fleets to comply with the state emission

1080 reduction goal of net zero greenhouse gas emissions by 2050. The department shall file its
1081 recommendations with the clerks of the house of representatives and the senate and the chairs of
1082 the joint committee on telecommunications, utilities and energy not later than July 1, 2021.

1083 SECTION 20G. Not later than 6 months after the effective date of this act, the
1084 department of energy resources and department of transportation shall file a report with the joint
1085 committee on transportation identifying state routes, U.S. routes, and interstate highways in
1086 Massachusetts that are high priority for public electric vehicle charging station installation.
1087 Determinations of priority shall be based on locations with high levels of air pollution in close
1088 proximity to transportation infrastructure, locations in close proximity to environmental justice
1089 populations, high total traffic volume on the route, volume of trips on the route that exceed 50
1090 miles, importance of the route for accessing employment centers, tourist attractions, and other
1091 frequent destinations, and other factors as detailed in the report. The report shall consider
1092 locations across the commonwealth, including within municipal light plant territories, and assess
1093 the benefit and potential cost savings to ratepayers for potential locations.

1094 SECTION 20H. The department of public utilities shall establish rules and regulations by
1095 which the qualifications of contractors shall be evaluated. Contractors who wish to be eligible to
1096 receive contracts with a gas company to perform gas work shall be required to register and
1097 provide all required documentation to meet certification requirements with the department on an
1098 annual basis.

1099 SECTION 20I. Notwithstanding any general or special law to the contrary, the
1100 department of public utilities shall conduct, publish, and periodically update a report detailing
1101 the degree to which each gas piping system operator adhered to the department's safety

1102 standards, reviewing the efficacy of said standards in protecting the physical health and financial
1103 prosperity of the commonwealth's residents, and analyzing recent advancements made in the
1104 theory and practice of pipeline safety and operation. The report shall include policy
1105 recommendations, including, but not limited to, legislation and regulations, that would enhance
1106 the safety of gas piping systems by utilizing any theoretical or practical advancements in safety
1107 analyzed within it. The department may conduct field audits of gas companies operating in the
1108 Commonwealth to ensure compliance with all applicable statutes and regulations, and shall
1109 include the results of any such audits in the study required under this section or any subsequent
1110 updates to said study. The department shall publish the study no later than 1 year after the
1111 effective date of this act and shall publish updates to the study not less than every 36 months.
1112 Said study shall be submitted to the clerks of the house and senate, as well as to the joint
1113 committee on telecommunications, utilities and energy.

1114 SECTION 20J. The secretary shall no later than 365 days after this act takes effect, adopt
1115 regulations for the requirements, administration and enforcement of this act.

1116 SECTION 20K. Notwithstanding any general or special law to the contrary, the
1117 department of energy resources and department of public utilities shall amend any rules,
1118 regulations, and tariffs to permit the owner of any new solar facility, including any solar energy
1119 generating source, that qualifies for programs pursuant to section 11F of chapter 25A of the
1120 General Laws and application regulations that achieves commercial operation on or after January
1121 1, 2021 to: (i) receive credits for any electricity generated by a solar facility that exceeds the
1122 owner's usage during a billing period, with such credits to be credited to a solar facility owner's
1123 customer account with the relevant distribution company, and carried forward from month to
1124 month; (ii) designate customers of the same distribution company, regardless of which ISO-NE

1125 load zone the customers are located in, to receive such credits in amounts attributed by the solar
1126 facility, with such credits applicable to any portion or all of a designated customer's electric bill;
1127 and (iii) direct the distribution company to purchase all or a portion of any credits produced by a
1128 solar facility at the rates provided for in the applicable statute, regulation, or tariff without
1129 discount or penalty. This section shall not apply to solar net metering facilities.

1130 SECTION 21. The secretary of energy and environmental affairs shall adopt the interim
1131 2030 and 2040 emissions limits pursuant to subsection (i) of section 4 of chapter 21N of the
1132 General Laws no later than December 31, 2021.

1133 SECTION 22. The secretary of energy and environmental affairs shall issue the 2050
1134 emissions reduction roadmap plan pursuant to subsection (j) of section 4 of chapter 21N of the
1135 General Laws no later than December 31, 2022.

1136 SECTION 23. The secretary of energy and environmental affairs shall promulgate the
1137 regulations required pursuant to subsection (k) of section 4 of chapter 21N of the General Laws
1138 no later than December 31, 2023.

1139 SECTION 24. The secretary of energy and environmental affairs shall publish the results
1140 of quantitative modeling and analysis of the commonwealth's energy economy and greenhouse
1141 gas emissions required pursuant to section 12 of chapter 21N of the General Laws no later than
1142 December 31, 2021.

1143 SECTION 25. Notwithstanding any general or special law to the contrary, the secretary
1144 of energy and environmental affairs, in consultation with the commissioner of environmental
1145 protection, shall make recommendations for increasing small businesses' access to energy
1146 efficiency grants and programs. The recommendations shall, at a minimum, include: (i) proposed

1147 changes to existing programs to better aid small businesses with short-term leases in making
1148 energy efficient improvements to existing properties; (ii) proposed changes to other existing
1149 programs to suit the particular needs of small businesses; and (iii) proposals for new programs
1150 specifically aimed at small businesses. The secretary shall file the recommendations as a report
1151 with the house and senate chairs of the joint committee on telecommunications, utilities and
1152 energy and the clerks of the house of representatives and the senate on or before January 15,
1153 2022.

1154 SECTION 26. Clause Forty-fifth of section 5 of chapter 59 of the General Laws shall not
1155 apply to solar and wind powered systems for which the owner has a signed agreement with the
1156 city or town to make a payment in lieu of taxes under subsection (b) of section 38H of chapter 59
1157 as of the effective date of this act.

1158 SECTION 27. Section 15G shall apply to taxes assessed for fiscal years beginning on or
1159 after July 1, 2021.

1160 SECTION 28. The department of public utilities shall promulgate regulations pursuant to
1161 section 115D of chapter 164 no later than December 31, 2021.

1162 SECTION 29. The department of public utilities shall promulgate and implement the
1163 regulations required pursuant to subsection (i) of section 144 of chapter 164 by July 1, 2021.; and
1164 by striking out the title and inserting in place thereof the following title: “An Act creating a 2050
1165 roadmap to a clean and thriving commonwealth.”.