

**HOUSE . . . . . No. 3372**

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**The Commonwealth of Massachusetts**

PRESENTED BY:

***Erika Uyterhoeven***

*To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:*

The undersigned legislators and/or citizens respectfully petition for the adoption of the accompanying bill:

An Act investing in a prosperous, clean Commonwealth by 2030.

PETITION OF:

NAME:	DISTRICT/ADDRESS:	DATE ADDED:
<i>Erika Uyterhoeven</i>	<i>27th Middlesex</i>	<i>2/19/2021</i>
<i>Jason M. Lewis</i>	<i>Fifth Middlesex</i>	<i>3/19/2021</i>
<i>David Henry Argosky LeBoeuf</i>	<i>17th Worcester</i>	<i>3/19/2021</i>
<i>Danillo A. Sena</i>	<i>37th Middlesex</i>	<i>3/19/2021</i>
<i>Maria Duaine Robinson</i>	<i>6th Middlesex</i>	<i>4/2/2021</i>
<i>Tami L. Gouveia</i>	<i>14th Middlesex</i>	<i>4/5/2021</i>
<i>Mike Connolly</i>	<i>26th Middlesex</i>	<i>4/28/2021</i>
<i>Natalie M. Higgins</i>	<i>4th Worcester</i>	<i>5/17/2021</i>
<i>Lindsay N. Sabadosa</i>	<i>1st Hampshire</i>	<i>5/17/2021</i>
<i>Steven C. Owens</i>	<i>29th Middlesex</i>	<i>5/25/2021</i>
<i>Nika C. Elugardo</i>	<i>15th Suffolk</i>	<i>12/9/2021</i>
<i>Tommy Vitolo</i>	<i>15th Norfolk</i>	<i>12/9/2021</i>
<i>Liz Miranda</i>	<i>5th Suffolk</i>	<i>1/27/2022</i>

**HOUSE . . . . . No. 3372**

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By Ms. Uytterhoeven of Somerville, a petition (accompanied by bill, House, No. 3372) of Erika Uytterhoeven and others relative to transitioning to 100 percent renewable electricity and net zero carbon emissions across all sectors of the Commonwealth by the year 2030. Telecommunications, Utilities and Energy.

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**The Commonwealth of Massachusetts**

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

An Act investing in a prosperous, clean Commonwealth by 2030.

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

1           SECTION 1. The commonwealth should lead the nation by transitioning to 100%  
2 renewable electricity and net zero carbon emissions across all sectors by 2030. Climate scientists  
3 estimate that we must halve global emissions by 2030 to stop catastrophic climate change;  
4 therefore, an equitable and sustainable future necessitates that the commonwealth aggressively  
5 transition energy use entirely away from fossil fuels to renewable energy generation. However,  
6 climate change is intertwined with social inequities that will not be solved by simply  
7 transitioning to renewable energy. To fully address the scope of the climate crisis, all of the  
8 interdependencies of the crisis must be acknowledged and addressed, such that: (1) the laws and  
9 energy policies of the commonwealth are aligned with the scientific consensus around the  
10 climate crisis; (2) all have access to clean air, water, and land; (3) we center justice and equity  
11 for environmental justice communities, frontline and fenceline communities - particularly poor,  
12 Black and brown, and indigenous communities - and other populations that have been

13 disproportionately affected by the climate crisis; (4) the commonwealth increases energy security  
14 and democratization by eliminating the use of fossil fuels and maximizing renewable energy  
15 production in our region; and (5) there is a just transition for workers amidst this energy  
16 transition by creating green, local, unionized jobs with wage and benefit parity and by  
17 prioritizing workers affected by the transition for green job training programs.

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

21 "Direct emissions", emissions from sources that are owned or operated, in whole or in  
22 part, by any person, entity or facility in the commonwealth including, but not limited to,  
23 emissions from any transportation vehicle; building; structure; fugitive source; reduction in  
24 carbon carrying capacity associated with land use; resource extraction or development;  
25 distribution system; or residential, commercial, institutional, industrial, waste management,  
26 agricultural, or manufacturing process.

27 SECTION 3. Said section 1 of said chapter 21N, as so appearing, is hereby further  
28 amended by inserting the following 4 definitions:-

29 “Negative emissions”, removal of greenhouse gases from the atmosphere measured in  
30 tons of carbon dioxide equivalent, reported in the greenhouse gas registry in accordance with  
31 subsection a of section 2 of chapter 21N.

32 “Net statewide greenhouse gas emissions”, statewide greenhouse gas emissions minus  
33 negative emissions.

34 “Land carbon carrying capacity”, the capacity of land to sequester greenhouse gases  
35 measured in tons of carbon dioxide equivalent, including that embodied in organic matter  
36 contained in forests, wetlands or soils.

37 “Changes in land use resulting in a reduction in carbon carrying capacity”, any process  
38 which causes a reduction in land carbon carrying capacity including development, deforestation,  
39 draining, landfill, or resource extraction.

40 SECTION 4: Section 2 of said chapter 21N, as so appearing, is hereby amended by  
41 striking out subsection (a) and inserting in place thereof the following subsection:-

42 (a) The department shall monitor and regulate emissions of greenhouse gases with the  
43 goal of reducing those emissions. The department shall adopt regulations to require the reporting  
44 and verification of statewide greenhouse gas emissions and to monitor and enforce compliance  
45 with this chapter. The regulations shall: (1) establish a greenhouse gas registry and reporting  
46 system for greenhouse gas emission sources; provided, however, that in establishing the  
47 greenhouse gas registry and reporting system, the department may collaborate with other states  
48 or a regional consortium; (2) annually require the owner or operator of any facility that is  
49 required to report air emissions data to the department pursuant to Title V of the federal Clean  
50 Air Act and that has stationary emissions sources that emit greenhouse gases to report annually  
51 to the regional registry direct stack emissions of greenhouse gases from such sources; (3) require  
52 the owner or operator of a facility that has stationary emissions sources that emit greenhouse  
53 gases in excess of 5,000 tons of greenhouse gases per year in carbon dioxide equivalents to  
54 report annually to the registry direct emissions of greenhouse gases from such sources; provided,  
55 however, that the department shall develop a simplified estimation form to assist facilities in

56 determining who shall report emissions and shall consider, on an annual basis, requiring the  
57 expansion of reporting to the greenhouse gas registry; (4) require the owner or developer of a  
58 property that has undergone a reduction in carbon carrying capacity in excess of 5,000 tons of  
59 carbon dioxide equivalent in a given year to report to the registry direct emissions of greenhouse  
60 gases from such sources; (5) provide for the voluntary reporting of emissions and negative  
61 emissions of greenhouse gases to the greenhouse gas registry by entities and facilities that are not  
62 required to submit information pursuant to clauses (2) and (3); provided, however, that the  
63 greenhouse gas emissions reported shall be of a type and format that the greenhouse gas registry  
64 can accommodate; (6) require reporting of greenhouse gas emissions from generation sources  
65 producing all electricity consumed, including transmission and distribution line losses from  
66 electricity generated within the commonwealth or imported from outside the commonwealth;  
67 provided, however, that this requirement shall apply to all retail sellers of electricity, including  
68 electric utilities, municipal electric departments and municipal light boards as defined in section  
69 1 of chapter 164A; (7) require reporting of fugitive greenhouse gas emissions from distribution  
70 of natural gas consumed for all residential, commercial and industrial purposes; provided,  
71 however, that this requirement shall apply to all owners of infrastructure used for distribution of  
72 natural gas including gas companies as defined in section 1 of chapter 164 of the General Laws;  
73 (8) ensure rigorous and consistent accounting of emissions and provide reporting tools and  
74 formats to ensure collection of necessary data; and (9) ensure that greenhouse gas emissions  
75 sources maintain comprehensive records of all reported greenhouse gas emissions.

76 SECTION 5: Section 3 of said chapter 21N, as so appearing, is hereby amended by  
77 striking out subsection (b) and inserting in place thereof the following subsection:-

78 (b) The secretary shall, in consultation with the department and the department of energy  
79 resources, adopt the following statewide greenhouse gas emissions limits: (i) an interim 2025  
80 statewide greenhouse gas emissions limit; (ii) an interim 2025 net statewide greenhouse gas  
81 emissions limit; (iii) an interim 2030 statewide greenhouse gas emissions limit; (iv) an interim  
82 2030 net statewide greenhouse gas emissions limit; (v) an interim 2035 statewide greenhouse gas  
83 emissions limit; (vi) an interim 2035 net statewide greenhouse gas emissions limit; (vii) an  
84 interim 2040 statewide greenhouse gas emissions limit; (viii) an interim 2040 net statewide  
85 greenhouse gas emissions limit; (ix) an interim 2045 statewide greenhouse gas emissions limit;  
86 (x) an interim 2045 net statewide greenhouse gas emissions limit; (xi) a 2050 statewide  
87 greenhouse gas emissions limit; (xii) a 2050 net statewide greenhouse gas emissions limit that  
88 achieves at least a net emissions reduction of 110 per cent below the 1990 level provided,  
89 however, that in no event shall the level of net statewide greenhouse gas emissions after 2030 be  
90 higher than zero and provided that in no event shall the level of statewide greenhouse gas  
91 emissions after 2040 be higher than zero. Each limit shall be accompanied by publication of a  
92 comprehensive, clear and specific roadmap plan to realize said limit.

93 SECTION 6: Subsection (a) of section 4 of said chapter 21N, as so appearing, is hereby  
94 amended by inserting after the first sentence the following sentence:- The secretary shall further  
95 adopt the 2040 net statewide greenhouse gas emissions limit pursuant to clause (8) of subsection  
96 (b) of section 3, which shall be not less than 105 per cent below the 1990 emissions level and  
97 shall plan to achieve that reduction pursuant to subsection (h) of section 4.

98 SECTION 7: Said section 4 of said chapter 21N, as so appearing, is hereby amended by  
99 inserting after subsection (h) the following subsection:-

100 (i) The secretary shall produce a comprehensive set of criteria defining negative  
101 emissions. Said criteria will be explicitly designed to (1) ensure that negative emissions represent  
102 removal of atmospheric greenhouse gases during the year in which they are recorded, (2) avoid  
103 double counting negative emissions in any way, (3) promote the growth of carbon negative  
104 practices in the commonwealth. The criteria shall be updated by the secretary every year.

105 SECTION 8. Section 6 of chapter 21A of the General Laws, is hereby amended by  
106 adding the following sentences:- Subject to appropriation, the secretary shall appoint an expert  
107 aide with the duties of developing policies, plans or programs to: (1) monitor and regulate  
108 emissions of greenhouse gases; (2) adopt the statewide greenhouse gas emissions limits; and (3)  
109 produce a comprehensive set of criteria defining negative emissions. Subject to appropriation,  
110 the secretary shall appoint an expert aide with the duties of developing policies, plans or  
111 programs to assist municipalities reach the zero emissions targets.

112 SECTION 9. Notwithstanding any general or special law to the contrary, the secretary of  
113 the executive office of energy and environmental affairs shall hire the expert aides set forth in  
114 section 8 of this act within 60 days of the start of fiscal year 2022, subject to appropriation.

115 SECTION 10. Section 16 of chapter 298 of the acts of 2008 is hereby amended by  
116 striking out, in lines 3 and 4, the words “, and shall expire on December 31, 2020”.

117 SECTION 11. Section 11F 1/2 of chapter 25A of the General Laws, as appearing in the  
118 2018 Official Edition, is hereby amended by striking out, in subsection (a), the words “(4) an  
119 additional 2 per cent of sales each year thereafter until December 31, 2029; and (5) an additional  
120 1 per cent of sales every year thereafter” and inserting in place thereof the following words:- “(4)  
121 26 per cent of total sales by December 31, 2020; (5) 30 per cent of total sales by December 31,

122 2021; (6) 35 per cent of total sales by December 31, 2022; (7) 40 per cent of total sales by  
123 December 31, 2023; (8) 47 per cent of total sales by December 31, 2024; (9) 54 per cent of total  
124 sales by December 31, 2025; (10) 63 per cent of total sales by December 31, 2026; (11) 73 per  
125 cent of total sales by December 31, 2027; (12) 85 per cent of total sales by December 31, 2028;  
126 and (13) 100 per cent of total sales by December 31, 2029.”

127 SECTION 12. Section 11F of chapter 25A of the General Laws, as appearing in the 2018  
128 Official Edition, is hereby amended by striking out subsection (b) and inserting in place thereof  
129 the following subsection:-

130 (b) For the purposes of this subsection, a renewable energy generating source is one  
131 which generates electricity using any of the following: (1) solar photovoltaic or solar thermal  
132 electric energy; (2) wind energy; (3) ocean thermal, wave or tidal energy; (4) fuel cells utilizing  
133 renewable fuels; (5) landfill gas; (6) naturally flowing water and hydroelectric; or (7) geothermal  
134 energy. The following technologies and fuels shall not be considered renewable energy sources:  
135 (A) coal; (B) petroleum coke; (C) oil; (D) natural gas; (E) construction and demolition debris  
136 including, but not limited to, chemically-treated wood; (F) nuclear power; (G) biomass power  
137 and (H) hydropower facilities that have nameplate capacity of more than 30MW. A renewable  
138 energy generating source may be located behind the customer meter within the ISO-NE, as  
139 defined in section 1 of chapter 164, control area if the output is verified by an independent  
140 verification system participating in the New England Power Pool Generation Information  
141 System, in this section called NEPOOL GIS, accounting system and approved by the department.

142 SECTION 13. Said section 11F, as so appearing, is hereby amended by striking out  
143 subsection (c) and inserting in place thereof the following subsection:-

144 (c) New renewable energy generating sources meeting the requirements of this subsection  
145 shall be known as Class I renewable energy generating sources. For the purposes of this  
146 subsection, a Class I renewable energy generating source is one that began commercial operation  
147 after December 31, 1997, or represents the net increase from incremental new generating  
148 capacity after December 31, 1997 at an existing facility, where the facility generates electricity  
149 using any of the following: (1) solar photovoltaic or solar thermal electric energy; (2) wind  
150 energy; (3) ocean thermal, wave or tidal energy; (4) fuel cells utilizing renewable fuels; (5)  
151 landfill gas; (6) energy generated by new hydroelectric facilities, or incremental new energy  
152 from increased capacity or efficiency improvements at existing hydroelectric facilities; provided,  
153 however, that (i) each such new facility or increased capacity or efficiency at each such existing  
154 facility must meet appropriate and site-specific standards that address adequate and healthy river  
155 flows, water quality standards, fish passage and protection measures and mitigation and  
156 enhancement opportunities in the impacted watershed as determined by the department in  
157 consultation with relevant state and federal agencies having oversight and jurisdiction over  
158 hydropower facilities; (ii) only energy from new facilities having a capacity up to 30 megawatts  
159 or attributable to improvements that incrementally increase capacity or efficiency by up to 30  
160 megawatts at an existing hydroelectric facility shall qualify; and (iii) no such facility shall  
161 involve pumped storage of water or construction of any new dam or water diversion structure  
162 constructed later than January 1, 1998; (7) marine or hydrokinetic energy as defined in section 3;  
163 or (8) geothermal energy. The following technologies and fuels shall not be considered  
164 renewable energy sources: (A) coal; (B) petroleum coke; (C) oil; (D) natural gas; (E)  
165 construction and demolition debris including, but not limited to, chemically-treated wood; (F)  
166 nuclear power; (G) biomass power and (H) hydropower facilities that have nameplate capacity of

167 more than 30MWA. Class I renewable generating source may be located behind the customer  
168 meter within the ISO-NE control area if the output is verified by an independent verification  
169 system participating in the NEPOOL GIS accounting system and approved by the department.

170 SECTION 14. Said section 11F, as so appearing, is hereby amended by striking out  
171 subsection (d) and inserting in place thereof the following subsection:-

172 (d) Every retail electric supplier providing service under contracts executed or extended  
173 on or after January 1, 2009, shall provide a minimum percentage of kilowatt-hour sales to end-  
174 use customers in the commonwealth from Class II renewable energy generating sources. For the  
175 purposes of this section, a Class II renewable energy generating source is one that began  
176 commercial operation before December 31, 1997 and generates electricity using any of the  
177 following: (1) solar photovoltaic or solar thermal electric energy; (2) wind energy; (3) ocean  
178 thermal, wave or tidal energy; (4) fuel cells utilizing renewable fuels; (5) landfill gas; (6) energy  
179 generated by existing hydroelectric facilities, provided that such existing facility shall meet  
180 appropriate and site-specific standards that address adequate and healthy river flows, water  
181 quality standards, fish passage and protection measures and mitigation and enhancement  
182 opportunities in the impacted watershed as determined by the department in consultation with  
183 relevant state and federal agencies having oversight and jurisdiction over hydropower facilities;  
184 and provided further, that only energy from existing facilities up to 7.5 megawatts shall be  
185 considered renewable energy and no such facility shall involve pumped storage of water nor  
186 construction of any new dam or water diversion structure constructed later than January 1, 1998;  
187 (7) marine or hydrokinetic energy as defined in section 3; or (8) geothermal energy. The  
188 following technologies and fuels shall not be considered renewable energy sources: (A) coal; (B)  
189 petroleum coke; (C) oil; (D) natural gas; (E) construction and demolition debris including, but

190 not limited to, chemically-treated wood; (F) nuclear power; (G) biomass power and (H)  
191 hydropower facilities that have nameplate capacity of more than 30MW. A Class II renewable  
192 generating source may be located behind the customer meter within the ISO-NE control area  
193 provided that the output is verified by an independent verification system participating in the  
194 NEPOOL GIS accounting system and approved by the department.

195 SECTION 15. Section 11F 1/2 of chapter 25A of the General Laws, as appearing in the  
196 2018 Official Edition, is hereby amended by striking out subsection (a) and inserting in place  
197 thereof the following subsection:-

198 (a) The department shall establish an alternative energy portfolio standard for all retail  
199 electricity suppliers selling electricity to end-use customers in the commonwealth. Every retail  
200 electric supplier providing service under contracts executed or extended on or after January 1,  
201 2009 shall provide a minimum percentage of kilowatt-hour sales, as determined by the  
202 department, to end-use customers in the commonwealth from alternative energy generating  
203 sources and the department shall annually thereafter determine the minimum percentage of  
204 kilowatt-hour sales to end-use customers in the commonwealth which shall be derived from  
205 alternative energy generating sources. For the purposes of this section, "alternative energy  
206 generating source" shall mean a source which generates energy using any of the following: (i)  
207 flywheel energy storage; (ii) energy efficient steam technology; or (iii) fuel cells. The following  
208 technologies and fuels shall not be considered alternative energy supplies: (A) coal; (B)  
209 petroleum coke; (C) oil; (D) natural gas; (E) construction and demolition debris including, but  
210 not limited to, chemically-treated wood and (F) nuclear power.

211 SECTION 16. Said section 11F 1/2, as so appearing, is hereby amended by striking out in  
212 subsection (b) the following text:-

213 (b) The department, in consultation with the department of environmental protection,  
214 shall set: (i) emission performance standards that are protective of public health, including  
215 standards for eligible biomass, biogas and liquid biofuel technologies that limit eligibility only to  
216 best-in-class commercially-feasible technologies, inclusive of energy conversion and emissions  
217 controls, with regard to reducing emissions of particulate matter sized 2.5 microns or less and  
218 carbon monoxide and other air pollutants; (ii) for eligible biomass, biogas and liquid biofuel  
219 technologies, a requirement of 50 per cent reduction in life-cycle greenhouse gas emissions  
220 compared to a high efficiency unit utilizing the fuel that is being displaced or, for a new load, a  
221 high-efficiency natural gas unit, if natural gas is available at reasonable cost to the site or  
222 otherwise the fuel that is most likely to be utilized; (iii) for eligible biomass, biogas and liquid  
223 biofuel technologies, requirements for thermal storage or other means to minimize any  
224 significant deterioration of efficiency or emissions due to boiler cycling, if feasible; (iv) for  
225 eligible biomass, biogas and liquid biofuel technologies, fuel conversion efficiency performance  
226 standards achievable by best-in-class commercially-feasible technologies; and (v) in consultation  
227 with the department of conservation and recreation, for forest-derived biomass, requirements that  
228 fuel shall be provided by means of sustainable forestry practices; provided, however, that the  
229 department shall adopt any existing or new biomass fuel sustainability standards if deemed  
230 appropriate by the department after a public comment process.

231 SECTION 17. Said section 11F 1/2, as so appearing, is hereby amended by striking out  
232 subsections (c) and (d) and inserting in place thereof the following subsections:-

233 (b) The department shall adopt regulations allowing for a retail supplier to discharge its  
234 obligations under this section by making an alternative compliance payment in an amount  
235 established by the department. Such regulations shall outline procedures by which each retail  
236 supplier shall annually submit for the department's review a filing illustrating the retail supplier's  
237 compliance with the requirements of this section.

238 (c) A municipal lighting plant shall be exempt from the obligations under this section so  
239 long as and insofar as it is exempt from the requirements to allow competitive choice of  
240 generation supply under section 47A of chapter 164.

241 SECTION 18. Said section 11F 1/2, as so appearing, is hereby amended by striking out  
242 subsection (e) and inserting in place thereof the following subsection:-

243 (d) The department may provide that for fuel cells and certain nonemitting renewable  
244 thermal technologies, an alternative energy credit shall be earned for less than 3,412,000 British  
245 thermal units of net useful thermal energy so as to stimulate the development of new on-site  
246 energy generating sources.

247 SECTION 19. Notwithstanding any general or special law to the contrary, the department  
248 of energy resources shall require distribution companies, as defined in section 1 of chapter 164 of  
249 the General Laws, to jointly and competitively conduct additional offshore wind generation  
250 solicitations and procurements of up to approximately 6,000 megawatts of aggregate nameplate  
251 capacity, in addition to the solicitations and procurements required by section 83C of chapter 169  
252 of the acts of 2008, as amended by chapter 188 of the acts of 2016, and may require said  
253 additional solicitations and procurements by December 31, 2029.

254 SECTION 20. Subsection (b) of section 83C of chapter 169 of the acts of 2008, inserted  
255 by chapter 188 of the acts of 2016 and amended by section 21 of chapter 27 of the acts of 2018  
256 shall be hereby amended by striking out the following words:- “; provided, however, that the  
257 department of public utilities shall not approve a long-term contract that results from a  
258 subsequent solicitation and procurement period if the levelized price per megawatt hour, plus  
259 associated transmission costs, is greater than or equal to the levelized price per megawatt hour  
260 plus transmission costs that result from the previous procurement.”

261 SECTION 21. Said subsection (b) in section 83C is hereby further amended by striking  
262 out the following words:- “(3) provide for an annual remuneration for the contracting distribution  
263 company up to 2.75 cent of the annual payments under the contract to compensate the company  
264 for accepting the financial obligation of the long-term contract, such provision to be acted upon  
265 by the department of public utilities at the time of contract approval;”

266 SECTION 22. In responding to any solicitations issued by distribution companies for the  
267 procurement of offshore wind generation, proposals for long-term contracts shall include an  
268 environmental and fisheries mitigation plan for the construction and operation of such offshore  
269 wind facilities, provided such plan shall include, but not be limited to, an explicit description of  
270 the best management practices and any on- or off-site mitigation the bidder will employ,  
271 informed by the latest science at the time the proposal is made, that will avoid, minimize and  
272 mitigate any impacts to: wildlife, including but not limited to threatened or endangered species  
273 such as North Atlantic right whales; coastal and marine habitats; natural resources; ecosystems;  
274 and traditional or existing water-dependent uses, including, but not limited to, commercial and  
275 recreational fishing. The plan should also include pre- and post-construction monitoring to  
276 understand the effects of facilities on marine and avian species.

277           The department of energy resources shall establish an environmental working group and  
278 a fisheries working group comprised of key experts and stakeholders to provide input on best  
279 practices for avoiding, minimizing and mitigating any impacts to: wildlife, including but not  
280 limited to threatened or endangered species such as North Atlantic right whales; coastal and  
281 marine habitats; natural resources; ecosystems; and traditional or existing water-dependent uses,  
282 including, but not limited to, commercial and recreational fishing, during the construction and  
283 operation of facilities eligible pursuant to this section. The working groups shall conduct ongoing  
284 review of implemented monitoring and mitigation programs and provide feedback and  
285 recommendations on an as-needed basis, to be considered by the department. Pre-construction  
286 engagement of these working groups will correspond with project development, solicitation, and  
287 permitting, and the federal consistency process.

288           Proposals must include a commitment to, if selected and approved, provide financial and  
289 technical assistance to support robust monitoring of wildlife and habitat through a minimum  
290 \$10,000 per megawatt contribution to regional research on the impacts of offshore wind on  
291 wildlife and habitat to inform strategies to avoid and mitigate any impacts to the marine  
292 environment. The department of energy resources, in consultation with the environmental and  
293 fisheries working groups, shall determine how the funds will be used to advance the responsible  
294 development of the offshore wind energy industry, not necessarily the proposed project.

295           SECTION 23. Notwithstanding any general or special law to the contrary, the department  
296 of energy resources shall require offshore wind bids to allocate at least 1% of the cost of the  
297 project to a general fund in support of Massachusetts-based offshore wind power research and  
298 workforce development provided further, that this fund shall be administered by the

299 Massachusetts Clean Energy Center, provided further, that a portion of this fund shall be used to  
300 cover reasonable administrative costs of MassCEC.

301 SECTION 24. Notwithstanding any general or special law to the contrary, the department  
302 of energy resources shall require retail suppliers, as defined in section 1 of chapter 164 of the  
303 General Laws, to jointly and competitively conduct additional solar photovoltaic electric energy  
304 generation solicitations and procurements of up to approximately 6,000 megawatts of aggregate  
305 nameplate capacity, in addition to the solicitations and procurements required by section 4 of  
306 chapter 75 of the acts of 2016, and may require said additional solicitations and procurements by  
307 December 31, 2029.

308 SECTION 25. In responding to any solicitations from retail suppliers for the procurement  
309 of solar generation, proposals for long-term contracts shall include an environmental mitigation  
310 plan for the construction and operation of such solar facilities, provided such plan shall include,  
311 but not be limited to, an explicit description of the best management practices and any on- or off-  
312 site mitigation the bidder will employ, informed by the latest science at the time the proposal is  
313 made, that will avoid, minimize and mitigate any impacts to: wildlife, including but not limited  
314 to threatened or endangered species; wetlands, including but not limited to impacts on water  
315 quality and vegetation diversity; forests, including impacts from deforestation and removal of  
316 trees; natural resources; and ecosystems. The plan should also include pre- and post-construction  
317 monitoring to understand the effects of facilities on wetlands, forests, and land on which solar  
318 facilities are installed.

319 The department of energy resources shall establish an environmental working group  
320 comprised of key experts and stakeholders to provide input on best practices for avoiding,

321 minimizing and mitigating any impacts to: wildlife, including but not limited to threatened or  
322 endangered species; wetlands, including but not limited to impacts on water quality and  
323 vegetation diversity; forests, including impacts from deforestation and removal of trees; natural  
324 resources; and ecosystems. The working groups shall conduct ongoing review of implemented  
325 monitoring and mitigation programs and provide feedback and recommendations on an as-  
326 needed basis, to be considered by the department. Pre-construction engagement of these working  
327 groups will correspond with project development, solicitation, and permitting, and the federal  
328 consistency process.

329         Proposals must include a commitment to, if selected and approved, provide financial and  
330 technical assistance to support robust monitoring of wildlife, ecosystems and habitat through a  
331 minimum \$10,000 per megawatt contribution to regional research on the impacts of solar on  
332 wildlife and habitat to inform strategies to avoid and mitigate any impacts to the environment.  
333 The department of energy resources, in consultation with the environmental working groups,  
334 shall determine how the funds will be used to advance the responsible development of the solar  
335 energy industry, not necessarily the proposed project.

336         SECTION 26. Section 139 of chapter 164 of the General Laws, as appearing in the 2018  
337 Official Edition, is hereby amended by inserting after the word “entity”, in line 96, the following  
338 words:- “or publicly-assisted housing or its residents.”

339         SECTION 27. Said section 138 of said chapter 164, as so appearing, is hereby further  
340 amended by striking out the words:- “or (2) of which the municipality or other governmental  
341 entity is assigned 100 per cent of the output.” and inserting in place thereof the following words:-  
342 "or (2) of which the municipality, other governmental entity, low income or environmental

343 justice households or publicly-assisted housing or its residents are assigned 100 per cent of the  
344 output or net metering credits.”

345 SECTION 28. Said section 138 of said chapter 164, as so appearing, is hereby further  
346 amended by inserting after the definition of “Net metering facility of a municipality or other  
347 governmental entity” the following definition:-

348 “Publicly-assisted housing”, as defined in section 1 of chapter 40T.

349 SECTION 29. Section 139 of chapter 164 of the General Laws, as appearing in the 2018  
350 Official Edition, is hereby amended by striking out, in lines 62 and 63, the words “and that are  
351 located in the same ISO-NE load zone to” and inserting in place thereof the following words:- ,  
352 “regardless of which ISO-NE load zone the customers are located in, to.”

353 SECTION 30. Said section 139, as so appearing, is hereby further amended by inserting  
354 after the word “charges”, in line 85, the second time it appears, the following words:- “,  
355 including demand charges as part of a monthly minimum reliability contribution except as  
356 authorized under subsection (j).”

357 SECTION 31. Said section 139 of said chapter 164, as so appearing, is hereby amended  
358 by striking out subsection (f) of said section 139 and inserting in place thereof the following  
359 subsection:-

360 (f) No aggregate net metering cap shall apply to a solar net metering facility.

361 SECTION 32. Section 138 of chapter 164, as appearing in the 2018 Official Edition, is  
362 hereby amended by inserting after the definition of “customer” the following definitions:-

363 "Low-income", includes low-income households as defined under section 1 of chapter  
364 40T.

365 "Environmental justice", the right to be protected from environmental pollution and to  
366 live in and enjoy a clean and healthful environment regardless of race, income, class, tribal  
367 affiliation, gender identity, sexual orientation, national origin, ethnicity or ancestry, religious  
368 belief, or English language proficiency. Environmental justice shall include the equal protection  
369 and meaningful involvement of all people with respect to the development, implementation, and  
370 2 of 5 enforcement of environmental laws, regulations, and policies and the equitable distribution  
371 of energy and environmental benefits and environmental burdens.

372 "Environmental Justice Population", a neighborhood that meets 1 or more of the  
373 following criteria: (i) the annual median household income is not more than 65 per cent of the  
374 statewide annual median household income; (ii) minorities comprise 40 per cent or more of the  
375 population; (iii) 25 per cent or more of households lack English language proficiency; or (iv)  
376 minorities comprise 25 per cent or more of the population and the annual median household  
377 income of the municipality in which the neighborhood is located does not exceed 150 per cent of  
378 the statewide annual median household income; provided, however, that for a neighborhood that  
379 does not meet said criteria, but a geographic portion of that neighborhood meets at least 1  
380 criterion, the secretary may designate that geographic portion as an environmental justice  
381 population upon the petition of at least 10 residents of the geographic portion of that  
382 neighborhood meeting any such criteria; provided further, that the secretary may determine that a  
383 neighborhood, including any geographic portion thereof, shall not be designated an  
384 environmental justice population upon finding that: (A) the annual median household income of  
385 that neighborhood is greater than 125 per cent of the statewide median household income; (B)

386 majority of persons age 25 and older in that neighborhood have a college education; (C) the  
387 neighborhood does not bear an unfair burden of environmental pollution; and (D) the  
388 neighborhood has more than limited access to natural resources, including open spaces and water  
389 resources, playgrounds and other constructed outdoor recreational facilities and venues.

390 "Environmental Justice Household", includes households within Environmental Justice  
391 Populations.

392 "Low income solar net metering facility", a solar net metering facility that allocates all of  
393 its output and net metering credits to (1) the providers or residents of publicly-assisted housing  
394 under section 1 of chapter 40T or (2) low income and environmental justice households; or (3)  
395 entities primarily serving such persons. The department of energy resources may establish an  
396 alternate minimum threshold or thresholds for allocation of output and net metering credits to  
397 determine project eligibility if the department determines a lower threshold is necessary in order  
398 to facilitate economic viability of low-income solar net metering facilities or to deliver 24  
399 meaningful economic benefit to recipients.

400 "Community shared solar net metering facility", a solar net metering facility with three or  
401 more eligible recipients of credits, provided that (1) no more than 50 per cent of the net metering  
402 credits produced by the facility are allocated to any one recipient, (2) no more than three  
403 recipients may receive net metering credits in excess of those produced annually by 25 kW of  
404 nameplate AC capacity and the combined share of said participants' capacity shall not exceed 50  
405 per cent of the total capacity of the Generation Unit, unless otherwise allowed by the department  
406 of energy resources, and (3) the recipients have an interest in the production of the facility or the

407 entity that owns the facility, in the form of formal ownership, a lease agreement, or a net  
408 metering allocation agreement.

409 SECTION 33. Said section 138 of said chapter 164, as so appearing, is hereby further  
410 amended in the definition of "market net metering credit" by striking out the following words:-  
411 "that credits shall only be allocated to an account of a municipality or government entity." and  
412 inserting in place thereof the following words:- "that credits shall only be allocated to an account  
413 of a municipality or government entity or low-income and environmental justice households."

414 SECTION 34. Section 139 of said chapter 164, as so appearing, is hereby further  
415 amended by adding the following subsections:-

416 (l) Notwithstanding any provision of special or general law to the contrary, a low income  
417 solar net metering facility shall receive credits equal to the excess kilowatt-hours by time of use  
418 billing period, if applicable, multiplied by the sum of the distribution company's: (i) default  
419 service kilowatt-hour charge in the ISO-NE load zone where the customer is located; (ii)  
420 distribution kilowatt-hour charge; (iii) transmission kilowatt-hour charge; and (iv) transition 52  
421 kilowatt-hour charge; provided, however, that this shall not include the demand side 4 of 5  
422 management and renewable energy kilowatt-hour charges set forth in sections 19 and 20 of  
423 chapter 25.

424 (m) Notwithstanding any provision of special or general law to the contrary, a community  
425 shared solar net metering facility that allocates at least 50 per cent of its credits to low income  
426 and environmental justice households or the providers or residents of publicly-assisted housing  
427 under section 1 of chapter 40T or (3) entities primarily serving such persons shall receive credits  
428 equal to the excess kilowatt-hours by time of use billing period, if applicable, multiplied by the

429 sum of the distribution company's: (i) default service kilowatt-hour charge in the ISO-NE load  
430 zone where the customer is located; (ii) distribution kilowatt-hour charge; (iii) transmission  
431 kilowatt-hour charge; and (iv) transition kilowatt-hour charge; provided, however, that this shall  
432 not include the demand side management and renewable energy kilowatt-hour charges set forth  
433 in sections 19 and 20 of chapter 25.

434 SECTION 35. Said section 139 of said chapter 164, as so appearing, is hereby amended  
435 by striking out in subsection (f) the following words:- "The aggregate net metering capacity of  
436 facilities that are not net metering facilities of a municipality or other governmental entity shall  
437 not exceed 7 per cent of the distribution company's peak load. The aggregate net metering  
438 capacity of net metering facilities of a municipality or other governmental entity shall not exceed  
439 8 per cent of the distribution company's peak load."

440 SECTION 36. Chapter 25A of the General Laws is hereby amended by inserting after  
441 section 11I the following section:-

442 Section 11J. For any solar incentive program created by the department of energy  
443 resources, under general law, session law, or other authority, the program shall designate 50 per  
444 cent of the incentive to equitably share the economic and environmental benefits of the program  
445 in communities facing barriers to access. This shall include low-income solar net metering  
446 facilities, as defined in section 138 of chapter 164, as well as rental housing or residents thereof.  
447 The department may, at its discretion, dedicate part of the incentive to resolve other barriers to  
448 equitable access to solar energy if such barriers are identified. The department shall also specify  
449 in program design its plans to reach communities whose primary language is not English.

450 SECTION 37. Chapter 25A of the General Laws is hereby amended by inserting after  
451 section 11F1/2 the following section:-

452 Section 11F 3/4. (a) Each municipal lighting plant shall establish a greenhouse gas  
453 emissions standard, which shall be known as the “Municipal Lighting Plant GGES.”

454 (b) A Municipal Lighting Plant GGES shall set the minimum percentage of renewable  
455 energy sold by each municipal lighting plant to all retail end-user customers purchasing  
456 electricity pursuant to rates established pursuant to section 58 of chapter 164 as follows: 100 per  
457 cent energy sales from renewable sources achieving net-zero greenhouse gas emissions by 2030.

458 (c) For the purpose of this section, “renewable sources” shall mean: energy from facilities  
459 using the following generation technologies, but only to the extent that any renewable energy  
460 credits, emission free energy certificates or other evidentiary non-carbon emitting documentation  
461 associated therewith have not been sold, retired, claimed or otherwise represented by another  
462 party as part of electrical energy output or sales or used to satisfy obligations in jurisdictions  
463 other than the commonwealth: (1) solar photovoltaic; (2) solar thermal electric; (3) hydroelectric,  
464 including imports into the New England wholesale electric market as administered by ISO New  
465 England Inc.; (4) marine or hydrokinetic energy; (5) geothermal energy; (6) wind energy; and (7)  
466 any other generation qualifying for renewable portfolio standards pursuant to section 11F.

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

472 thereafter, in the amount 0.25 times the Renewable Portfolio Standard ACP set forth in the  
473 department's regulations at 225 C.M.R. 14.00 et seq. per kilowatt hour based on the amount of  
474 such deficiency, escalated annually by the Consumer Price Index. Such Municipal Lighting Plant  
475 ACP shall be deposited into a fund that shall be maintained and administered by the municipal  
476 light plant and such fund shall be used by the municipal light plant to fund greenhouse gas  
477 emissions reduction and related programs in its service territory.

478 SECTION 38. Chapter 90 of the General Laws is hereby amended by inserting after  
479 section 7CC the following section:-

480 Section 7DD (a) For the purposes of this section the following words shall have the  
481 following meanings:-

482 "Consumer", a buyer, other than for purposes of resale, of a motor vehicle, any person to  
483 whom such motor vehicle is transferred during the period of any express or statutory warranty  
484 under this section applicable to such motor vehicle, and any other person entitled by the terms of  
485 such warranty to enforce its obligations.

486 "Dealer", any person engaged in the business of selling, offering for sale, or negotiating  
487 the retail sale of used motor vehicles or selling motor vehicles as broker or agent for another,  
488 including the officers, agents and employees of such person and any combination or association  
489 of dealers, but not including a bank or other financial institution, or the commonwealth, its  
490 agencies, bureaus, boards, commissions, authorities, nor any of its political subdivisions. A  
491 person shall be deemed to be engaged in the business of selling used motor vehicles if such  
492 person has sold more than three used motor vehicles in the preceding twelve months.

493 "Motor vehicle" or "vehicle", any motor vehicle as defined in section one, sold or  
494 replaced by a dealer or manufacturer, except that it shall not include auto homes, vehicles built  
495 primarily for off-road use or any vehicle used primarily for business purposes.

496 "Used motor vehicle" or "used vehicle", any vehicle driven more than the limited use  
497 necessary in moving or road testing a new vehicle prior to delivery to a consumer, including a  
498 demonstrator vehicle, except that it shall not include auto homes, vehicles built primarily for off  
499 road use, motorcycles, or any vehicle used primarily for business purposes.

500 "New motor vehicle" or "new vehicle", any vehicle not satisfying the definition of used  
501 motor vehicle.

502 "Plug-in vehicle", a battery electric vehicle that draws propulsion energy solely from an  
503 on-board electrical energy storage device during operation that is charged from an external  
504 source of electricity or a plug-in hybrid electric vehicle with an on-board electrical energy  
505 storage device that can be recharged from an external source of electricity which also has the  
506 capability to run on another fuel.

507 "Zero-emission vehicle", a motor vehicle that produces no engine exhaust emissions.

508 (b) Beginning on January 1st 2027, no new motor vehicle shall be sold in the  
509 commonwealth by a dealer to a consumer unless the vehicle is a plug-in vehicle.

510 (c) Beginning on January 1st 2030, no new motor vehicle shall be sold in the  
511 commonwealth by a dealer to a consumer unless the vehicle is a zero-emission vehicle.

512 SECTION 39. Section 16 of chapter 25A of the General Laws, as appearing in the 2018  
513 Official Edition, is hereby amended by inserting after the word “section”, in line 1, the following  
514 words:- and section 18.

515 SECTION 40. Subsection (a) of said section 16 of said chapter 25A, as so appearing, is  
516 hereby amended by adding the following definition:-

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

518 SECTION 41. Said chapter 25A is hereby further amended by inserting after section 17  
519 the following section:-

520 Section 18. (a) The commissioner shall, subject to appropriation, establish a program to  
521 provide rebates or other financial incentives to consumers who purchase or lease a zero-emission  
522 vehicle. Vehicles qualifying for rebates under this section shall: (i) be manufactured primarily for  
523 use on public streets, roads and highways; (ii) not be modified from the original manufacturer’s  
524 specification; and (iii) have been acquired for use or lease by the consumer and not for resale.

525 (b) A rebate under this section shall not be less than \$1,500 per vehicle; provided,

526 however, that no rebate shall be available for a vehicle with a sales price that exceeds  
527 \$50,000.

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

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

538 SECTION 42. Section 94 of chapter 143 of the General Laws, as appearing in the 2018  
539 Official Edition, is hereby amended by inserting after subsection (r) the following subsections:-

540 (s) In consultation with the department of energy resources, to adopt and fully integrate  
541 into the state building code requirements that new construction of commercial and  
542 residential buildings, as well as major reconstruction, renovation and repair of such buildings,  
543 include building electrical service, conduit systems, and level-2 or higher electric vehicle  
544 chargers sufficient to support the minimum number of zero-emission vehicle parking spaces;  
545 provided, however, that the minimum number of zero-emission vehicle parking spaces shall be at  
546 least 1 parking space or not less than 75 per cent of the total number of parking spaces,  
547 whichever is greater. For the purposes of this section, “zero-emission vehicle” shall mean a  
548 motor vehicle that produces no engine exhaust emissions.

549 (t) In consultation with the department of energy resources, to adopt and fully integrate  
550 into the state building code requirements that new construction of parking facilities as well as  
551 major reconstruction, renovation and repair of such facilities, include building building electrical  
552 service, and conduit systems, and level-2 or higher electric vehicle chargers sufficient to support  
553 the minimum number of zero-emission vehicle parking spaces; provided, however, that the

554 minimum number of zero-emission vehicle parking spaces shall be at least 1 parking space or not  
555 less than 75 per cent of the total number of parking spaces, whichever is greater.

556 SECTION 43. Section 3 of chapter 448 of the acts of 2016 is hereby amended by striking  
557 out, in lines 3 and 4, the words “may include requirements for electric vehicle charging for  
558 residential and appropriate commercial” and inserting in place thereof the following words:-  
559 shall include requirements for electric vehicle charging for appropriate residential and  
560 commercial.

561 SECTION 44. Section 1 of Chapter 90 of the General Laws, as appearing in the 2016  
562 Official Edition, is hereby amended by adding the following definitions:-

563 “Electric vehicles” are vehicles that rely solely on electric motors for propulsion and  
564 includes non-combustion vehicles.

565 “Zero-emission infrastructure” means electric battery chargers, trolleybus and railway  
566 catenary wire, and other equipment to support the operation of electric vehicles.

567 SECTION 43. Chapter 21N is hereby amended by inserting after Section 7, the following  
568 section:-

569 Section 7½. To contribute to the Commonwealth’s greenhouse gas reduction targets, the  
570 Secretary, in consultation with the department of energy resources, department of transportation,  
571 department of environmental protection, and department of public utilities, shall set and enforce  
572 targets for public fleet electrification.

573 (a) The Massachusetts Bay Transportation Authority shall operate a fully electric bus  
574 fleet by 2030 and meet the following interim targets: (i) 100 percent of all MBTA procurements

575 shall be electric vehicles as defined in section 1 of chapter 90 by December 31, 2023; (ii) 40  
576 percent of all MBTA buses should be electric by 2025; (iii) 60 percent of all MBTA buses  
577 should be electric by 2027; (iv) 80 percent of all MBTA buses should be electric by 2028; (v) 90  
578 percent of all MBTA buses should be electric by 2029. The MBTA shall establish and meet  
579 goals for charging its bus infrastructure with renewable energy generating sources as defined in  
580 chapter 25A, section 11F.

581 (b) The MBTA shall work with the department of public health and department of  
582 environmental protection to establish air monitoring stations around bus maintenance facilities  
583 and to improve air quality around such facilities.

584 (c) The MBTA and its commuter rail contractor shall operate a fully electric commuter  
585 rail system by 2030.

586 (d) Regional transit authorities (RTAs) shall operate a fully electric bus fleet by 2035 and  
587 meet the following interim targets: (i) 100 percent of all RTA procurements shall be electric by  
588 December 31, 2026; (ii) 40 percent of all RTA buses should be electric by 2025; (iii) 60 percent  
589 of all RTA buses should be electric by 2028; (iv) 80 percent of all RTA buses should be electric  
590 by 2032; (v) 90 percent of all RTA buses should be electric by 2034.

591 SECTION 46. Chapter 161A is hereby amended by inserting the following paragraphs in  
592 section 7 after the term “under Section 6C”:

593 (a) The MBTA governing board shall establish deadlines for MBTA bus maintenance  
594 facilities to support an all electric bus fleet. Construction of new 100 percent electric bus garages  
595 and modernization of old garages, as needed for electric bus infrastructure, shall be complete at  
596 least one year prior to full bus fleet electrification in 2030.

597 (b) The MBTA governing board shall direct the MBTA to update and operate existing  
598 zero-emission vehicle infrastructure and to expand its zero-emission infrastructure. Removal of  
599 existing zero-emission infrastructure shall be permitted for temporary road, catenary, or public  
600 utility work. Any replacements for electric vehicles in operation must meet or exceed the  
601 availability of the current zero-emission fleet, with no auxiliary systems. For all diesel-electric  
602 hybrid buses, the MBTA shall develop robust monitoring about the locations where such buses  
603 are operating on diesel power versus electric power and provide this data to the public on a  
604 timely basis.

605 (c) The MBTA governing board shall direct the MBTA to operate electric buses with a  
606 priority for operating such buses on routes serving environmental justice populations. The  
607 MBTA governing board shall direct the MBTA to operate electric buses on bus routes serving  
608 residents of Chelsea, Everett, Revere, Somerville, Chinatown, Roxbury, Dorchester, Lynn, and  
609 Mattapan by 2025. The MBTA governing board shall direct MBTA staff to conduct robust  
610 community outreach and engagement with residents of environmental justice populations,  
611 municipal officials in cities and towns that have environmental justice populations, and with  
612 transportation and environmental justice advocates. The MBTA staff shall report to the MBTA  
613 governing board at least six times per year the progress of electrifying the bus and rail fleet. As  
614 part of the public reports, MBTA staff shall explain the cost analysis of all procurements of fossil  
615 fuel infrastructure and the reasons for procuring fossil fuel infrastructure in lieu of zero-emission  
616 infrastructure.

617 (d) The MBTA governing board shall electrify the commuter rail fleet in two phases.  
618 Phase I includes electrification of the Providence Line, Fairmount Line, and Newburyport /  
619 Rockport Line at least through the Beverly Depot Station by December 31, 2024. Phase II

620 includes electrification of the Framingham/Worcester Line by December 31, 2026;  
621 Middleborough/ Lakeville Line by December 31, 2027, and the remaining routes that pass  
622 through environmental justice populations, but do not offer passenger service by December 31,  
623 2030: South Coast (Phase 2 via Downtown Taunton), Haverhill, Lowell, Fitchburg, Franklin,  
624 Plymouth/Kingston, Greenbush, Foxborough, Newburyport/ Rockport beyond Beverly Depot,  
625 Cape Cod Extension, NH Capitol Corridor.

626 SECTION 47. Section 6 of chapter 161B is hereby amended by adding after paragraph  
627 (r), the following paragraph:

628 (s) The authorities shall operate electric buses with a priority for operating such buses on  
629 routes serving environmental justice populations. Authorities shall conduct robust community  
630 outreach and engagement with residents of environmental justice populations, municipal officials  
631 in cities and towns that have environmental justice populations, and with transportation and  
632 environmental justice advocates. The authorities shall report annually to the Regional Transit  
633 Authority Council pursuant to Section 27 of chapter 161B the progress of electrifying the bus  
634 fleet. As part of the public reports, authorities shall explain the cost analysis of all procurements  
635 of fossil fuel infrastructure and the reasons for procuring internal combustion engines and fossil  
636 fuel infrastructure in lieu of electric vehicles and zero-emission infrastructure.

637 SECTION 48. Section 1 of Chapter 90 of the General Laws, as appearing in the 2016  
638 Official Edition, is hereby amended by adding the following definitions:-

639 “Electric vehicles” are vehicles that rely solely on electric motors for propulsion and  
640 includes non-combustion vehicles.

641 “Emergency vehicle”, any publicly owned vehicle operated by a peace officer in  
642 performance of their duties, any authorized emergency vehicle used for fighting fires or  
643 responding to emergency fire calls, any publicly owned authorized emergency vehicle used by an  
644 emergency medical technician or paramedic, or used for towing or servicing other vehicles, or  
645 repairing damaged lighting or electrical equipment, any motor vehicle of mosquito abatement,  
646 vector control, or pest abatement agencies and used for those purposes, or any ambulance used  
647 by a private entity under contract with a public agency.

648 SECTION 49. Section 1 of chapter 21N is hereby amended by inserting the following  
649 definitions:

650 “Motor vehicles”, as defined in section 1 of chapter 90.

651 “Motor vehicle fleet” is a set of at least twenty-five motor vehicles under the same  
652 ownership or control and registered in the Commonwealth of Massachusetts.

653 “Motor vehicle fleet serving a public purpose” is a motor vehicle fleet of which a portion  
654 is leased, rented, or contracted by the Commonwealth of Massachusetts or a municipality or any  
655 political subdivision thereof from a person or entity other than the Commonwealth of  
656 Massachusetts or a municipality to provide a public service or for its own use, including school  
657 buses and paratransit vehicles.

658 “Public motor vehicle fleet” is a motor vehicle fleet owned by the Commonwealth of  
659 Massachusetts, a transportation authority, a school district, a public university, a quasi-public  
660 agency, or a municipality or in the shared ownership of multiple municipalities, or any political  
661 subdivision thereof. A public motor vehicle fleet includes vehicles under the same ownership of

662 the Commonwealth or a municipality, even if a portion of the motor vehicle fleet is under the  
663 management or control of separate secretariats, departments, agencies, or offices.

664 “Electric vehicle”, as defined in section 1 of chapter 90.

665 SECTION 50. Chapter 21N is hereby amended by inserting after section 7 the following  
666 sections: -

667 Section 7A. The Secretary, in consultation with the department of energy resources,  
668 department of transportation, department of environmental protection, and department of public  
669 utilities, shall develop a transition to an electric motor vehicle fleet program and promulgate  
670 regulations to require the following motor vehicle fleet standards: (a) fifty percent of all public  
671 motor vehicle fleets and motor vehicle fleets serving a public purpose shall be electric vehicles  
672 by 2025; (b) seventy-five percent of all public motor vehicle fleets and motor vehicle fleets  
673 serving a public purpose shall be electric vehicles by 2027; and (c) one hundred percent of all  
674 public motor vehicle fleets and motor vehicle fleets serving a public purpose shall be electric  
675 vehicles by 2030.

676 In reaching the Commonwealth’s public fleet requirements defined in this section, the  
677 Secretary shall prioritize for electrification any vehicles cited as medium- or high-priority by the  
678 study commissioned pursuant to section 6 of chapter 448 of the acts of 2016. To meet the  
679 deadlines established in this section, the Secretary shall prioritize electric vehicle deployment in  
680 locations serving environmental justice populations as defined in the general laws or, in the  
681 absence of a statutory definition, the environmental justice policy of the executive office of  
682 energy and environmental affairs, as may be amended.

683           Section 7B. Notwithstanding section 9A of chapter 7, vehicles subject to the electric  
684 vehicle public motor vehicle fleet program include: all public motor vehicle fleets, all motor  
685 vehicle fleets serving a public purpose, and all motor vehicle fleets that are owned, leased,  
686 rented, or contracted, by quasi-public agencies, excluding emergency vehicles. The Department  
687 of Energy Resources, with input from the Department of Environmental Protection, Department  
688 of Public Utilities, and Department of Transportation, shall: (i) establish goals for private motor  
689 vehicle fleets conversion; (ii) identify and implement incentives to support electric vehicle  
690 purchases; (iii) work with owners of motor vehicle fleets used, at least in part, for the purpose of  
691 commercial ride-sharing and ride-hailing and passenger transportation, including vehicles  
692 regulated pursuant to chapter 159A½ to transition to electric vehicles; (iv) work with owners of  
693 motor vehicle fleets used for public transportation licensed to operate in the Commonwealth  
694 pursuant to chapter 90 or chapter 159A to transition to electric vehicles; and (v) work with  
695 owners of motor vehicle fleets used as commercial motor carriers, freight services, limousine  
696 services, and taxis registered to operate in the Commonwealth to transition to electric vehicles.

697           Section 7C. The Secretary, in consultation with the executive office for administration  
698 and finance, shall require that new motor vehicles purchased by the Commonwealth shall be  
699 electric vehicles according to the following deadlines: (i) forty percent of all purchases in 2022;  
700 (ii) sixty percent of all purchases in 2023; (iii) eighty percent of all purchases in 2024; (iv) ninety  
701 percent of all purchases in 2025; and (v) one hundred percent of all purchases in 2026.

702           Section 7D. The Department of Energy Resources shall design and implement an  
703 incentive program to encourage the conversion of private fleets to electric vehicles. Should an  
704 owner of a motor vehicle fleet fail to comply with electric vehicle program requirements, the  
705 Department of Energy Resources shall remove the incentive for that owner and require

706 reimbursement of the incentive. As part of the incentive program, the Department of Energy  
707 Resources shall ensure a specific pool of funds, not less than ten percent of all funds allocated to  
708 the incentive program, is available to municipalities to promote the transition to electric vehicle  
709 motor vehicle fleet.

710 SECTION 51. Beginning in 2022 and every five years thereafter through 2040, the  
711 Secretary shall submit a report to the Legislature that measures the Commonwealth's progress  
712 towards implementation of the electric vehicle motor vehicle fleet program. The report shall: (i)  
713 assess the electric vehicle market in the Commonwealth; (ii) identify funding sources to serve as  
714 incentives for purchasing electric vehicles to offset costs to agencies, municipalities, and  
715 businesses; (iii) identify barriers to increased penetration of electric vehicles; and (iv)  
716 recommend legislative and regulatory action to address those barriers.

717 SECTION 52. The Secretary may provide education, training, and technical assistance to  
718 motor vehicle fleet operators to support electric vehicle penetration.

719 SECTION 53. The regulations required pursuant to sections 7A through 7D of said  
720 chapter 21N shall be promulgated and in effect not later than 270 days following the effective  
721 date.

722 SECTION 54. Section 6 of chapter 25A of the General Laws, as appearing in the 2018  
723 Official Edition, is hereby amended by inserting after clause (11) the following clause:-

724 (12) develop and adopt, as an appendix to the state building code, in consultation with the  
725 board of building regulations and standards, a specialized net-zero energy code that includes, but  
726 is not limited to, a definition of net-zero building.

727 SECTION 55. Section 96 of said chapter 143, as so appearing, is hereby amended by  
728 inserting, in line 7, after the word “to” the following words:- , the specialized net-zero energy  
729 code developed and adopted by the department of energy resources.

730 SECTION 56. Section 97 of said chapter 143, as so appearing, is hereby amended by  
731 striking out, in line 22, the words “a reasonable time” and inserting in place thereof the following  
732 words:- 45 days.

733 SECTION 57. To develop the specialized net-zero energy code required by section 6 of  
734 chapter 25A of the General Laws, the department of energy resources shall hold not less than 5  
735 public hearings in geographically diverse locations throughout the commonwealth that shall  
736 represent the distinguishing characteristics of rural, suburban and urban households, 3 of which  
737 shall be held in an underserved community or community with a high percentage of low-income  
738 households. The specialized net-zero energy code required by said section 6 of said chapter 25A  
739 shall be developed, adopted and incorporated as an appendix to the state building code not later  
740 than 1 year after the passage of this act.

741

742 SECTION 58. Section 94 of chapter 143 of the General Laws, as appearing in the 2018  
743 Official Edition, is hereby amended by striking out subsection (o) and inserting in place thereof  
744 the following subsection:

745 (o) To adopt and fully integrate as part of the state building code: (i) the latest  
746 International Energy Conservation Code, (ii) the net-zero energy code required by section 6 of  
747 chapter 25A of the General Laws for new residential construction beginning on January 1st  
748 2025, (iii) the net-zero energy code required by said section 6 of said chapter 25A for new

749 commercial construction beginning on January 1st 2028, and (iv) any more stringent energy-  
750 efficiency provisions that the board, in consultation with the department of energy resources,  
751 concludes are necessary to achieve the emissions limits established by subsection (b) of section 3  
752 of chapter 21N of the General Laws as amended, and the renewable energy requirements  
753 established by subsection (a) of section 3 of chapter 25D of the General Laws as amended. The  
754 energy provisions of the state building code shall be updated within 1 year of any revision to the  
755 International Energy Conservation Code.

756 SECTION 59. Section 94 of chapter 143 of the General Laws, as appearing in the 2018  
757 Official Edition, is hereby amended by striking out subsection (q) and inserting in place thereof  
758 the following subsection:

759 (q) In consultation with the department of energy resources, to develop requirements and  
760 promulgate regulations as part of the state building code, in addition to the requirements  
761 enumerated in subsection (o) of Section 94 of chapter 143 of the General Laws, requiring a  
762 process to ensure that all new non-residential buildings larger than 10,000 square feet and any  
763 major reconstruction, alteration or repair of all such buildings perform as designed with respect  
764 to energy consumption by undergoing building commissioning or acceptance testing. Such  
765 commissioning must be completed before the issuance of a certificate of occupancy.

766 SECTION 60. Amendments to the state building and electric code required under section  
767 A4 and A8 shall be in effect not later than 18 months after the effective date of this act.

768 SECTION 61. Chapter 121B of the General Laws is hereby amended by inserting after  
769 section 38D the following section:-

770 Section 38D ½. (a) The department shall develop a program to transition the entire public  
771 housing stock of the Commonwealth into highly energy-efficient homes that produce on-site, or  
772 procure, enough carbon-free renewable energy to meet total energy consumption annually.

773 (b) Projects pursuant to this section may include a mix of extremely low income  
774 households, low or moderate income households and market-rate housing and may utilize any  
775 available source of rental subsidy or financial assistance.

776 (c) The local housing authority shall: (i) comply with section 12, related to wages, labor  
777 requirements and the Social Security Act; (ii) comply with section 29, related to wage rates and  
778 collective bargaining; (iii) retain the same number of public housing units as existed before  
779 participation in this program and to the greatest extent possible: (A) provide for full tenant  
780 participation, including public hearings, on adoption or material amendment of its annual plan as  
781 required under subsection (h); (B) provide for a tenant lease and grievance procedure  
782 substantially similar to that in effect prior to entry into this program; (C) provide that evictions  
783 shall be only for good cause; (D) assure that housing assisted under this program is decent, safe  
784 and sanitary and that, excepting any market-rate housing, the housing is deed restricted to  
785 occupancy by extremely low income households, very low income households or low and  
786 moderate income households at affordable rents or sales prices, in perpetuity or for such other  
787 term as may be approved by the department, consistent with funding sources; and (E) assure that  
788 proceeds from the disposition of public housing and funds generated from new affordable and  
789 market-rate housing created to replace public housing, unless restricted to a particular use, shall  
790 be allocated to the reconstruction, rehabilitation or repair of public housing developments; (iv)  
791 assure that if a participating housing authority redevelops its public housing units, all households  
792 residing in the units at the time of planned redevelopment shall receive relocation assistance, if

793 eligible, under this chapter or other applicable statutes; provided however, that such households  
794 shall have the right to return to the redeveloped public housing, unless such household is  
795 determined to be in unlawful occupancy prior to the approval of the housing authority's  
796 application, has materially breached the lease agreement or has been evicted for cause, under  
797 applicable law, subject to units of the appropriate size and requirements being available;  
798 provided further, that such households shall have priority for placement over new applicants; (v)  
799 comply with chapter 334 of the acts of 2006; and (vi) comply with the audit requirements of  
800 section 29.

801 (d) The department shall maximize tenant participation and management by low- and  
802 very low-income individuals in the rehabilitation, upgrade, and transition of public housing  
803 through education, training, and jobs, all of which are to be funded by the Workforce Training  
804 Fund established in section 2RR of chapter 29.

805 SECTION 62. Chapter 21N of the General Laws is hereby amended by inserting after  
806 section 11 the following section:-

807 Section 12. To achieve the mobilization required to reach 100% renewable electricity and  
808 energy by 2030, a just transition for workers is necessary. The attorney general must ensure that  
809 the following criteria are met amidst this energy transition:

810 (a) Any job created in the transition to 100% renewables must be a high-quality union job  
811 with guaranteed wage and benefit parity for workers affected by the transition.

812 (b) Workers affected by the energy transition, including but not limited to fossil fuel  
813 workers, mechanics, laborers, are to be prioritized for training and advancement opportunities  
814 that allow for them to shift to renewable energy jobs.

815           (c) After the training referenced in subsection b has been completed, workers affected by  
816 the transition are guaranteed a job created in the mobilization to 100% renewables, and will be  
817 prioritized over other applicants.

818           (d) The commonwealth, through the powers of the attorney general, will fund and  
819 provide pensions for workers impacted by the transition age 50 or older who elect to retire early  
820 in lieu of participation in the training programs described in subsection (b).

821           (e) The commonwealth, through the department of labor services, will fund training and  
822 advancement opportunities, pensions, and the wage and benefit parity for each worker affected  
823 by the transition.