

**SENATE . . . . . No. 2608**

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**The Commonwealth of Massachusetts**

**In the One Hundred and Ninetieth General Court  
(2017-2018)**

SENATE, July 16, 2018

The committee on Ways and Means to whom was referred the House Bill to increase renewable energy and reduce high-cost peak hours (House, No. 4756),-- reports, recommending that the same ought to pass with an amendment striking out all after the enacting clause and inserting in place thereof the text of Senate document numbered 2608 and by striking out the title and inserting in place thereof the following title “An Act to a promote clean energy future” (also based on House, Nos. 4737, 4739 and 4749) .

For the committee,  
Karen E. Spilka

**The Commonwealth of Massachusetts**

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**In the One Hundred and Ninetieth General Court  
(2017-2018)**  
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1           SECTION 1. Section 9A of chapter 7 of the General Laws, as appearing in the 2016  
2 Official Edition, is hereby amended by striking out the last 4 paragraphs and inserting in place  
3 thereof the following 3 paragraphs:

4           The commonwealth shall ensure that 50 per cent of the motor vehicles owned or leased  
5 by the commonwealth in the state fleet, including vehicles owned or leased by quasi-public  
6 agencies, shall be zero emission vehicles by June 30, 2025. “Zero emission vehicle” shall mean a  
7 battery electric vehicle, a plug-in hybrid vehicle or a fuel cell vehicle. In reaching that  
8 requirement, the secretary shall prioritize for electrification any vehicles cited as medium or high  
9 priority by the study commissioned by section 6 of chapter 448 of the acts of 2016.

10           The secretary shall submit to the clerks of the senate and house of representatives and the  
11 chairs of the joint committee on transportation a statement annually, not later than July 1,  
12 detailing the progress made in meeting the requirements of this section. The report shall include:  
13 (i) a complete listing of vehicles leased, owned or assigned to each agency; and (ii) a description  
14 of each vehicle, including the year, make and model, whether the vehicle is powered by an  
15 internal combustion engine, a mild hybrid engine, a plug-in hybrid motor, a fully battery electric  
16 motor, a hydrogen fuel cell electric motor, a compressed liquefied natural gas engine, a propane

17 engine or other means of propulsion. If a zero emission vehicle is not purchased or leased, the  
18 secretary shall provide, in each instance, a specific explanation as to why a zero emission vehicle  
19 could not have sufficiently fulfilled the intended functions.

20 Beginning in fiscal year 2026, the secretary shall ensure that 100 per cent of new motor  
21 vehicles purchased or leased each year by the commonwealth shall be zero emission vehicles.  
22 The secretary shall provide a written report to the clerks of the senate and house of  
23 representatives and the chairs of the joint committee on transportation annually, not later than  
24 July 1, explaining in detail all instances where a zero emission vehicle was not purchased or  
25 leased and the reasons therefor.

26 SECTION 2. The first paragraph of subsection (a) of section 11E of chapter 12 of the  
27 General Laws, as so appearing, is hereby amended by striking out the second sentence and  
28 inserting in place thereof the following sentence:- The attorney general, through the office of  
29 ratepayer advocacy, may intervene, appear and participate in administrative, regulatory or  
30 judicial proceedings on behalf of any group of consumers in connection with any matter  
31 involving a company doing business in the commonwealth and subject to the jurisdiction of the  
32 department of public utilities or the department of telecommunications and cable under chapter  
33 164, 164A, 164B, 165 or 166.

34 SECTION 3. Section 26A of chapter 21 of the General Laws, as so appearing, is hereby  
35 amended by inserting after the word “effluent”, in line 67, the following words:- , hydraulic  
36 fracturing fluid.

37 SECTION 4. Section 27 of said chapter 21, as so appearing, is hereby amended by adding  
38 the following clause:-

39 (14) Enforce restrictions on drilling, waste treatment and disposal and mining activities  
40 which have been enacted to protect the water quality and the natural resources of the  
41 commonwealth.

42 SECTION 5. Section 42 of said chapter 21, as so appearing, is hereby amended by  
43 inserting after the word “commonwealth”, in line 3, the following words:- , or into an injection  
44 well or into a treatment works in the commonwealth.

45 SECTION 6. Said chapter 21 is hereby further amended by inserting after section 53A  
46 the following section:-

47 Section 53B. (a) As used in this section, the following words shall have the following  
48 meanings unless the context clearly requires otherwise:-

49 “Fluid”, any material or substance which flows or moves whether in semi-solid, liquid,  
50 sludge, gas or any other form or state.

51 “Gas”, all natural gas, whether hydrocarbon or nonhydrocarbon, including hydrogen  
52 sulfide, helium, carbon dioxide, nitrogen, hydrogen, casinghead gas and all other fluid  
53 hydrocarbons not defined as oil.

54 “Hydraulic fracturing”, the process of pumping a fluid into or under the surface of the  
55 ground in order to create fractures in rock to produce or recover oil or gas.

56 “Oil”, crude petroleum, oil and all hydrocarbons, regardless of specific gravity, that are in  
57 the liquid phase in the reservoir and are produced at the wellhead in liquid form.

58 “Oil and gas”, oil and gas collectively, or either oil or gas, as the context may require to  
59 give effect to the purposes of this chapter.

60 (b) For the period from January 1, 2019 to December 31, 2028, inclusive, no person shall  
61 engage in hydraulic fracturing.

62 (c) For the period from January 1, 2019 to December 31, 2028, inclusive, no person shall  
63 collect, store, treat or dispose of wastewater hydraulic fracturing fluid, wastewater solids, drill  
64 cuttings or other byproducts from hydraulic fracturing.

65 SECTION 7. Section 1 of chapter 21N of the General Laws, as appearing in the 2016  
66 Official Edition, is hereby amended by striking out the definition of “Direct emissions” and  
67 inserting in place thereof the following definition:-

68 “Direct emissions”, emissions from sources that are owned or operated, in whole or in  
69 part, by a person, entity or facility including, but not limited to: (i) emissions from a  
70 transportation vehicle; (ii) a building or structure, including but not limited to a residential,  
71 commercial, industrial or institutional building or structure; or (iii) an industrial, manufacturing  
72 or other business process.

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

76 “Greenhouse gas-emitting priority”, natural gas, petroleum, coal and any solid, liquid or  
77 gaseous fuel derived therefrom, and any other matter identified by the department as a

78 greenhouse gas-emitting priority that emits or is capable of emitting a greenhouse gas when  
79 burned.

80 SECTION 9. Said section 1 of said chapter 21N, as so appearing, is hereby further  
81 amended by inserting after the word “of”, in line 50, the following words:- a greenhouse gas-  
82 emitting priority or.

83 SECTION 10. Said section 1 of said chapter 21N, as so appearing, is hereby further  
84 amended by striking out the definition of “Market-based compliance mechanism”, in lines 56 to  
85 65, inclusive, and inserting in place thereof the following definition:-

86 “Market-based compliance mechanism”, any form of price compliance system imposed  
87 on sources or categories of sources or any form of pricing mechanism imposed directly on  
88 greenhouse gas-emitting priorities or on the distribution or sale of greenhouse gas-emitting  
89 priorities which are designed to reduce emissions as required by this chapter including, but not  
90 limited to: (i) a system of market-based declining annual aggregate emissions limitations for  
91 sources or categories of sources that emit greenhouse gases; (ii) greenhouse gas emissions  
92 exchanges, banking, credits and other transactions governed by rules and protocols established  
93 by the secretary or a regional program that results in the same greenhouse gas emissions  
94 reduction, over the same time period, as direct compliance with a greenhouse gas emissions limit  
95 or emission reduction measure adopted by the executive office pursuant to this chapter; or (iii) a  
96 system of charges or exactions imposed to reduce statewide greenhouse gas emissions in whole  
97 or in part.

98 SECTION 11. Subsection (a) of section 2 of said chapter 21N, as so appearing, is hereby  
99 amended by striking out the first sentence and inserting in place thereof the following sentence:-

100 The department shall monitor and regulate greenhouse gas-emitting priorities and direct and  
101 indirect emissions of greenhouse gases with the goal of reducing emissions in order to achieve  
102 greenhouse gas emissions limits established by this chapter.

103 SECTION 12. Subsection (b) of section 3 of said chapter 21N, as so appearing, is hereby  
104 amended by striking out clauses (2) and (3) and inserting in place thereof the following 2  
105 clauses:- (2) a 2030 statewide greenhouse gas emissions limit accompanied by plans to achieve  
106 this limit in accordance with said section 4; provided, however, that the 2030 statewide  
107 greenhouse gas emissions limit shall maximize the ability of the commonwealth to meet the 2050  
108 statewide greenhouse gas emissions limit; (3) a 2040 statewide greenhouse gas emissions limit  
109 accompanied by plans to achieve this limit in accordance with said section 4; provided, however,  
110 that the 2040 statewide greenhouse gas emissions limit shall maximize the ability of the  
111 commonwealth to meet the 2050 statewide greenhouse gas emissions limit.

112 SECTION 13. Subsection (a) of section 4 of said chapter 21N, as so appearing, is hereby  
113 amended by inserting after the first sentence the following 2 sentences:- The secretary shall  
114 further adopt the 2030 statewide greenhouse gas emissions limit pursuant to clause (2) of  
115 subsection (b) of section 3, which shall be not less than 43 per cent below the 1990 emissions  
116 level and shall plan to achieve that reduction pursuant to subsection (h) of section 4. The  
117 secretary shall further adopt the 2040 statewide greenhouse gas emissions limit pursuant to  
118 clause (3) of said subsection (b) of said section 3, which shall be not less than 62 per cent below  
119 the 1990 emissions level and shall plan to achieve that reduction pursuant to said subsection (h)  
120 of said section 4.

121 SECTION 14. Said subsection (a) of said section 4 of said chapter 21N, as so appearing,  
122 is hereby further amended by striking out the last sentence and inserting in place thereof the  
123 following sentence:- The 2020, 2030 and 2040 statewide greenhouse gas emissions limits and  
124 implementation plans shall comply with this section.

125 SECTION 15. Said section 4 of said chapter 21N, as so appearing, is hereby further  
126 amended by striking out, in line 17, the word "limit" and inserting in place thereof the following  
127 word:- limits.

128 SECTION 16. Said section 4 of said chapter 21N, as so appearing, is hereby amended by  
129 striking out, in line 29, the word "shall" and inserting in place thereof the following words:- , in  
130 consultation with the department of public health, shall.

131 SECTION 17. Said section 4 of said chapter 21N, as so appearing, is hereby further  
132 amended by striking out, in line 42, the words "emission limit and implementing plan" and  
133 inserting in place thereof the following words:- , 2030 and 2040 statewide greenhouse gas  
134 emissions limits and implementing plans.

135 SECTION 18. Said section 4 of said chapter 21N, as so appearing, is hereby further  
136 amended by striking out subsection (h) and inserting in place thereof the following subsection:-

137 (h) The secretary shall issue a 2050 emissions reduction plan that shall describe in detail  
138 the commonwealth's actions and methods for achieving the 2030, 2040 and 2050 emissions limit  
139 required by subsection (b) of section 3. The 2050 emissions reduction plan shall: (i) address all  
140 sources and categories of sources that emit greenhouse gas emissions; (ii) take into account the  
141 imposition of market-based compliance mechanisms required in section 7A; (iii) indicate for  
142 each source or category of sources how, to what extent and when the commonwealth will act to



143 reduce its emissions in order to achieve the 2050 emissions limit required by said subsection (b)  
144 of said section 3; and (iv) include or be accompanied by any analysis quantitatively assessing  
145 proposed and planned actions, methods, regulations and programs designed to reduce greenhouse  
146 gas emissions for their economic, environmental and public health impacts, particularly those  
147 that may benefit or burden low-income or moderate-income people. The 2050 emission  
148 reduction plan shall be developed following public hearings. The secretary shall evaluate, adjust  
149 if necessary and publish updates to the 2050 emissions reduction plan not less than once every 30  
150 months, including assessments of the effectiveness, to date, of all actions, methods, regulations  
151 and programs designed to reduce greenhouse gas emissions and the extent to which the actions,  
152 methods, regulations and programs disproportionately impact low-income households and  
153 minimize administrative burdens and leakage.

154 SECTION 19. Section 5 of said chapter 21N, as so appearing, is hereby amended by  
155 inserting after the word “communities”, in line 10, the following words:- including, but not  
156 limited to, economically-distressed manufacturing, economic sectors, economic subsectors or  
157 individual employers located within those communities.

158 SECTION 20. Said chapter 21N is hereby further amended by striking out section 6, as  
159 so appearing, and inserting in place thereof the following section:-

160 Section 6. In implementing its 2050 emissions reduction plan, the commonwealth and its  
161 agencies shall promulgate regulations not later than December 31, 2023 regarding all sources or  
162 categories of sources and all greenhouse gas-emitting priorities that are consistent with the plan  
163 required by subsection (h) of section 4 and sufficient to achieve the statewide emissions limits  
164 pursuant to section 3. The regulations shall be designed to ensure that the commonwealth

165 achieves its required emissions reductions equitably and in a manner that protects and, where  
166 feasible, improves the condition of low-income and moderate-income persons while creating,  
167 where feasible, additional employment and economic development in the commonwealth.

168 SECTION 21. Said chapter 21N is hereby further amended by inserting after section 7  
169 the following 2 sections:-

170 Section 7A. The secretary shall promulgate regulations establishing market-based  
171 compliance mechanisms for: (i) the transportation sector; provided, however, that the regulations  
172 shall, at a minimum, be designed to reduce passenger vehicle and light duty truck emissions; (ii)  
173 the commercial, industrial and institutional sectors, including but not limited to buildings and  
174 industrial, manufacturing and other business processes; and (iii) the residential building sector.

175 The market-based compliance mechanisms established pursuant to this section shall: (i)  
176 maximize the ability of the commonwealth to achieve the greenhouse gas emissions limits  
177 established pursuant to this chapter;(ii) be designed to minimize disproportionate impacts on  
178 low-income households; (iii) be designed to identify, with special attention to manufacturing,  
179 economic sectors, economic subsectors or individual employers at risk of serious negative  
180 impacts due to the market-based compliance mechanisms established pursuant to this section;  
181 and (iv) be designed to mitigate impacts identified in clause (iii). The market-based compliance  
182 mechanisms may be established by joining any existing market-based compliance mechanisms.  
183 The secretary shall evaluate and adjust, if necessary, all market-based compliance mechanisms  
184 adopted pursuant to this section at least once every 30 months to meet the requirements of this  
185 section and to achieve greenhouse gas emissions limits. The regulations may be promulgated as  
186 part of a coordinated regional effort with other states or Canadian Provinces to implement,

187 expand or join any other market-based compliance mechanisms. The department shall ensure it  
188 has adequate resources to implement the requirements of this chapter.

189         Section 7B. Not later than September 30, 2023 and every 5 years thereafter, the secretary  
190 or a designee shall publish a comprehensive energy plan that shall include and be based upon  
191 reasonable projections of the commonwealth’s energy demands for electricity, transportation and  
192 thermal conditioning and shall also include strategies for meeting those demands in a regional  
193 context, prioritizing meeting energy demand through conservation, energy efficiency and other  
194 demand-reduction resources in a manner that contributes to the commonwealth meeting the  
195 limits for 2030 and 2040 pursuant to subsection (b) of section 3.

196         SECTION 22. Subsection (b) of section 21 of chapter 25 of the General Laws, as  
197 appearing in the 2016 Official Edition, is hereby amended by adding the following paragraph:-

198         (4) At least once annually, the natural gas and electric utilities and energy efficiency  
199 service companies shall distribute information about MassSave programs via billing statements  
200 to their customers.

201         SECTION 23. Section 3 of chapter 25A, as so appearing, is hereby amended by inserting  
202 after the definition of “Energy savings” the following 3 definitions:-

203         “Environmental justice”, the right to be protected from environmental pollution and to  
204 live in and enjoy a clean and healthful environment regardless of race, income, national origin or  
205 English language proficiency; provided, however, that “environmental justice” shall include the  
206 equal protection and meaningful involvement of all people with respect to the development,  
207 implementation and enforcement of environmental laws, regulations and policies and the  
208 equitable distribution of environmental benefits.

209 “Environmental justice population”, a neighborhood or a population: (i)(A) determined  
210 by the executive office of energy and environmental affairs or its subordinate agencies to have  
211 experienced a disproportionate environmental impact since Jan, 1, 1998, or to have otherwise  
212 been denied its enjoyment of environmental justice; (B) in which the annual median household  
213 income is equal to or less than 110 per cent of the statewide median; or (C) in which minorities  
214 comprise 25 per cent or more of the population; or (ii) identified by the executive office of  
215 energy and environmental affairs or its subordinate agencies in an environmental justice strategy  
216 issued pursuant to this chapter; provided, however, that “environmental justice population” shall  
217 meet at least 1 of the requirements of subclauses (A) to (C), inclusive, of clause (i).

218 “Environmental justice household”, households within environmental justice populations.

219 SECTION 24. Said section 3 of said chapter 25A, as so appearing, is hereby further  
220 amended by inserting after the definition of “Local government body” the following definition:

221 “Low-income households”, low-income households as defined under section 1 of chapter  
222 40T.

223 SECTION 25. Subsection (a) of section 11F of chapter 25A of the General Laws, as so  
224 appearing, is hereby amended by striking out clause (3)and inserting in place thereof the  
225 following clause:- (3) an additional 3 per cent of sales each year thereafter.

226 SECTION 26. Said chapter 25A is hereby further amended by inserting after section 11I  
227 the following section:-

228 Section 11J. (a) When creating, pursuant to general law, session law or other authority, a  
229 solar incentive program, including, but not limited to, the solar incentive program established

230 pursuant to chapter 75 of the acts of 2016, the department shall design a program whose  
231 economic and environmental benefits are equitably shared by low-income households,  
232 environmental justice populations and other communities facing barriers to accessing the  
233 program. Nothing in this section shall delay the commencement of the program or the  
234 implementation prior to the first program review. The department may dedicate part of the  
235 program to resolving other barriers to access if such barriers are identified. The department shall  
236 specify in program design its plans to reach communities whose primary language is not English.

237 (b) In designing and modifying the program pursuant to subsection (a), the department  
238 shall consider: (i) the proportion of benefits received by low-income households, environmental  
239 justice households and other communities with barriers to access compared to benefits received  
240 by other communities under the solar incentive program; and (ii) the distribution of benefits  
241 received pursuant to other requirements and set-asides in any solar incentive program, including  
242 set-asides for solar units less than or equal to 25 kW. In determining the minimum portion, the  
243 department shall hold at least 3 public hearings in environmental justice communities or other  
244 communities with barriers to access.

245 SECTION 27. Chapter 25A of the General Laws is hereby amended by adding the  
246 following section:-

247 Section 17. (a) The department shall establish an energy storage system target program  
248 for the deployment of energy storage systems by distribution company customers, distribution  
249 companies and municipal lighting plants to achieve a statewide energy storage deployment target  
250 of 2,000 megawatts by January 1, 2030 and a subsequent statewide energy storage deployment  
251 target to be achieved by January 1, 2035. The department shall set annual statewide deployment

252 targets to be achieved in each distribution company's and municipal lighting plant's service  
253 territory in order to reach the energy storage system targets required under this section.

254 (b) To achieve the annual targets established in subsection (a), the department may  
255 consider a variety of deployment mechanisms and may require policies to encourage the cost-  
256 effective deployment of energy storage systems including, but not limited to: (i) distribution  
257 company or municipal lighting plant programs to encourage private deployment of energy  
258 storage systems by their customers; (ii) procurement of cost-effective energy storage systems to  
259 be owned and operated by a distribution company; provided, however, that any such  
260 procurement shall finance the deployment of energy storage systems for the purpose of: (1) a  
261 nonwires alternative to investment in distribution; (2) deferring investment in distribution  
262 infrastructure that would otherwise be needed to address actual or forecasted overloads on  
263 distribution circuits or at substations; or (3) improving the capability of the distribution system to  
264 recover from adverse events that otherwise could result in long-term outages in critical areas of  
265 the distribution system; (iii) the use of alternative compliance payments collected pursuant to  
266 subsection (e) to fund a grant program for private development; and (iv) the use of energy storage  
267 to replace fossil generation and the use of energy efficiency funds under section 19 of chapter 25  
268 if the department determines that customer-owned energy storage provides sustainable peak load  
269 reductions on either the electric or gas distribution systems and is otherwise consistent with  
270 section 11G of this chapter.

271 (c) A distribution company shall not own or operate energy storage systems equal to  
272 more than 20 per cent of the annual target established by the department for the distribution  
273 company's service territory established in subsection (a) for the purpose of achieving the annual  
274 targets; provided, however, that the department shall ensure that no distribution company shall

275 prevent or interfere with a customer or developer's ability to enter into agreements to own or  
276 operate behind the meter energy storage systems.

277 (d) Each distribution company and municipal lighting plant shall annually make a map  
278 available that identifies areas of critical need for energy storage systems within their service  
279 territory. Each distribution company and municipal light plant shall identify on the map areas of  
280 actual or forecasted overloads on distribution circuits or at substations. The map shall aggregate  
281 system detail as necessary for distribution system security.

282 (e) The department shall promulgate regulations to: (i) establish a carve-out of the  
283 alternative energy portfolio standard obligation under section 11F1/2 for energy storage systems  
284 as defined in section 1 of chapter 164; and (ii) allow each distribution company and municipal  
285 lighting plant to discharge its obligations under this section by either procuring attributes from  
286 energy storage systems that qualify under the carve-out established pursuant to this section or by  
287 making an alternative compliance payment in an amount to be established by the department.  
288 The regulations shall require distribution companies and municipal lighting plants to annually  
289 submit to the department a report that shows it is in compliance with this section.

290 (f) Annually, not later than December 1, the department shall make available on its  
291 website a report on the energy storage system target program.

292 (g) The department shall promulgate regulations to implement this section.

293 Section 18. (a) The department shall a establish an incentive program to support non-  
294 solar renewable energy resources that are less than 5 megawatts and that qualify for the class I  
295 renewable energy portfolio standard under section 11F. The program shall be designed to finance  
296 the development, construction, and operation of renewable-energy distributed-generation

297 projects through a fixed price performance-based incentive that is designed to achieve annual  
298 megawatt targets at reasonable cost through competitive processes established by the department.

299 (b) The incentive program shall be tariff-based and the department shall promulgate  
300 regulations that, at a minimum: (i) establish the eligibility criteria for facilities to qualify under  
301 the program; (ii) establish the methodology for establishing incentives; and (iii) direct the  
302 distribution companies to jointly file a model tariff to implement the program with department of  
303 public utilities, for its review and approval.

304 (c) The methodology for establishing incentive levels shall: (i) take into consideration  
305 underlying system installation, soft, and fuel costs; (ii) take into account electricity revenues and  
306 any federal or state incentives; (iii) rely on market-based mechanisms or price signals as much as  
307 possible; (iv) differentiate incentives levels by size, location, and project type; (v) establish  
308 annual targets for each technology type; (vi) ensure that the costs of the program are shared  
309 collectively among all ratepayers of the distribution companies; and (vii) promote investor  
310 confidence through long-term incentive revenue certainty and market stability.

311 (d) Attributes, as defined by the department, of the Class I renewable energy generating  
312 sources that qualify under regulations established pursuant to this section shall be eligible for use  
313 by retail electric suppliers pursuant to their obligations under section 11F.

314 SECTION 28. Chapter 30A of the General Laws is hereby amended by inserting after  
315 section 10A the following section:-

316 Section 10B. Notwithstanding section 10, in any adjudicatory proceeding regarding a  
317 petition, request for approval or investigation of a gas company or electric company, as those



318 terms are defined in section 1 of chapter 164, the following shall be permitted to participate as  
319 full parties in the proceeding: (i) a municipality that is within the service area of such company;  
320 (ii) a member of the general court whose district includes ratepayers of such company; and (iii) a  
321 group of not less than 50 persons who are immediately and significantly impacted by such a  
322 petition or request for approval or investigation and whose involvement would not unduly  
323 broaden the issues in the proceeding.

324 SECTION 29. Section 16 of chapter 71 of the General Laws, as appearing in the 2016  
325 Official Edition, is hereby amended by adding the following subsection:-

326 (s) To lease or license land to a business or other organization for periods not exceeding  
327 30 years for the purpose of generating renewable energy; provided, however, that such use shall  
328 not interfere with the educational programs being conducted by the district; provided further, that  
329 no lease or license shall be executed until the expiration of 60 days after the date on which the  
330 lease or license was voted on by the district committee; and provided further, that before the  
331 expiration of this period, any member town of the regional school district may hold a town  
332 meeting to express disapproval of the lease or license authorized by the district committee and if  
333 at that meeting a majority of the voters present and voting disapprove of the lease or license  
334 authorized by the district committee, the lease or license shall not be executed.

335 SECTION 30. Chapter 111 of the General Laws is hereby amended by inserting after  
336 section 142O the following section:-

337 Section 142P. There shall be at least 1 air monitoring station within a 1-mile radius of a  
338 working natural gas compressor station to collect data and verify compliance with the National  
339 Ambient Air Quality Standards. Construction and maintenance of air monitoring stations shall be

340 funded through the building permit paid for by the operating energy corporation to the  
341 department of environmental protection. Personnel shall be staffed through that department to  
342 collect data on a weekly basis, varying between morning and evening collection times.

343 SECTION 31. Section 1B of chapter 164 of the General Laws, as appearing in the 2016  
344 Official Edition, is amended by adding the following subsection:

345 (g)(1) Each distribution company shall offer to residential and small commercial and  
346 industrial customers at least 1 option for a time-of-use rate, including differentials for energy  
347 supply, transmission and distribution that is designed to reflect the cost of providing electricity at  
348 different times of the day and year, but shall not include demand charges. Peak time periods for  
349 each rate shall not be longer than 6 hours in length per day and, as consistent with cost causation,  
350 price differentials shall be sufficient to motivate customer response. Each distribution company  
351 shall provide each customer, at least once annually, a summary of available rate options with a  
352 calculation of expected bill impacts under each option. Options for a time-of-use rate shall be  
353 posted prominently on the website of each distribution company, including the ability to opt into  
354 such a rate online, and additional educational material. If a customer opts into a time-of-use rate,  
355 the distribution company shall install all necessary equipment within 60 days after the notice to  
356 opt in. A customer may choose a different rate schedule after 1 year.

357 (2) If the department approves rates that include time-varying pricing on an opt-out basis,  
358 the opt-in time of use rate structure may be discontinued but each distribution company shall  
359 offer a time-varying rate to all residential and all small commercial and industrial customers at  
360 all times. In considering an opt-out time-varying rate structure, the department shall consider the  
361 impacts of such a structure on low-income and vulnerable consumers and shall take appropriate

362 mitigating actions, including the consideration of continuing low-income discount and other  
363 selected categories of customers on non-time-varying rate structures and allowing these  
364 categories of customers to opt into time-varying rates.

365 (3) The department shall promulgate rules and regulations necessary to carry out this  
366 subsection which shall include, but not be limited to: (i) the procedure for procurement of time-  
367 varying default service offerings; and (ii) separately accounting for the reconciliation of expenses  
368 for time-varying default service procurement from customers on time-varying default service.

369 SECTION 32. Said chapter 164 is hereby further amended by inserting after section 1K  
370 the following section:-

371 Section 1L. (a) As used in this section, the following words shall have the following  
372 meanings unless the context clearly requires otherwise:

373 “Low-income customer”, a retail customer who is on a residential low-income discount  
374 distribution rate as set forth in subsection (4) of section 1F or who participates in a low-income  
375 energy assistance program.

376 “Residential retail customer”, a retail customer in the commonwealth who is on a  
377 residential distribution rate.

378 (b) No supplier or entity acting on the supplier’s behalf shall:

379 (1) extend an electricity supply agreement with a residential retail customer beyond the  
380 agreement’s stated term without receiving the customer’s affirmative written consent to do so at  
381 least 2 months prior to the end of the electricity supply agreement’s stated term unless the rate  
382 provided for the extended term is equal to or less than the rate applied to the stated terms; or

383 (2) charge a cancellation fee of greater than \$50 to a residential retail customer.

384 (c) As a condition of licensure under paragraph (1) of section 1F, each supplier shall:

385 (1) not less than quarterly, provide to the department: (i) a list detailing each rate the  
386 supplier charged to residential retail customers; and (ii) the number of residential retail  
387 customers charged each rate included in such list by rate class; provided, however, that the  
388 department shall publish the list on the department's website, [energyswitchma.gov](http://energyswitchma.gov), or a  
389 successor website;

390 (2) not less than annually, provide data to the department concerning any renewable  
391 energy certificates retired in connection with the generation service provided to individual  
392 residential retail customers; provided, however, that such data shall include the geographic  
393 location and fuel type of each such renewable energy certificate, the total cost of each renewable  
394 energy certificate and whether each certificate is RPS Class I eligible pursuant to section 11F of  
395 chapter 25A; and provided further, that the department shall publish such information on its  
396 website, [energyswitchma.gov](http://energyswitchma.gov), or a successor website;

397 (3) provide on its bills, if the electric supplier chooses to provide its own billing and  
398 collection services, at a minimum, the requirements listed in subsection (d); and

399 (4) guarantee that each low-income customer shall pay a rate that is either equal to or less  
400 than the fixed basic service rate charged by the low-income customer's electric distribution  
401 company for the same period of time.

402 (d) Each electric distribution company that bills on behalf of a supplier pursuant to  
403 section 1D shall include the following information on the first page of each bill for each  
404 residential customer receiving electric generation service from a supplier:

405 (i) the electric generation service rate;

406 (ii) the term and expiration date of such rate;

407 (iii) the cancellation fee, if applicable;

408 (iv) notification that such rate is variable, if applicable;

409 (v) the fixed basic service rate for the same period;

410 (vi) the term and expiration date of the fixed basic service rate;

411 (vii) the dollar amount that would have been billed for the electric generation service  
412 component had the residential retail customer been receiving fixed basic service;

413 (viii) an electronic link or internet web site address to the department's website,  
414 [energyswitchma.gov](http://energyswitchma.gov), or a successor website and a toll-free telephone number and other  
415 information necessary to enable the residential retail customer to obtain further information or  
416 make the switch to another supplier or to basic service; and

417 (ix) if a residential retail customer is enrolled in automatic electronic bill payments  
418 and does not receive a bill through United States mail, a link to the customer's bill in electronic  
419 mail with confirmation of bill payment.

420 An electric distribution company that implements the billing information requirements of  
421 this subsection may recover from electric suppliers all reasonable costs for such implementation.

422 (e) Each electric distribution company shall submit a report to the department and to the  
423 attorney general semi-annually that details the numbers of low-income customers and all other  
424 residential retail customers, by supplier, for each zip code in the electric distribution company's  
425 service territory. This report shall be published on the department's website, [energyswitch.gov](http://energyswitch.gov)  
426 or a successor website.

427 (f) A violation of the conditions of licensure under this section shall be punished pursuant  
428 according to subsection (7) of section 1F of not less than \$1,000 per violation per day. In  
429 addition, the attorney general may bring an action under section 4 of chapter 93A to enforce the  
430 consumer protection provisions of this section and to obtain restitution, civil penalties, injunctive  
431 relief and any other relief awarded pursuant to said chapter 93A.

432 (g) Not less than quarterly, the department shall publish each supplier's complaint data,  
433 sourced from complaints made to the department and those made to the attorney general and the  
434 distribution companies, as provided to the department annually, on the department's website,  
435 [energyswitchma.gov](http://energyswitchma.gov) or a successor website. The complaint data shall include, but not be limited  
436 to, the total number of complaints received regarding the supplier, the number of complaints  
437 received for misleading or false marketing, the number of complaints for unauthorized switching,  
438 the number of complaints for Do Not Call list violations and the number of complaints for  
439 aggressive marketing.

440 (h) This section shall not apply to a supplier in the course of providing generation  
441 services pursuant to sections 134, 136 and 137.

442 SECTION 33. Section 69H of said chapter 164, as appearing in the 2016 Official  
443 Edition, is hereby amended by inserting after the word “environment”, in line 6, the following  
444 words:- and public health.

445 SECTION 34. Said section 69H of said chapter 164, as so appearing, is hereby further  
446 amended by striking out, in lines 20 and 21, the words “2 commissioners of the commonwealth  
447 utilities commission” and inserting in place thereof the following words:- the commissioner of  
448 public health, 1 commissioner of public utilities.

449 SECTION 35. Section 94A of said chapter 164, as so appearing, is hereby amended by  
450 adding the following 2 paragraphs:-

451 Nothing in this section shall be construed to authorize the department to review and  
452 approve contracts for natural gas pipeline capacity filed by electric companies.

453 As part of the review of a contract with a term of more than 1 year for new gas pipeline  
454 capacity, the department shall determine whether such contract is in the public interest. The  
455 department shall not approve such a contract unless, as part of its public interest determination,  
456 the department finds that: (i) such contract is necessary to satisfy demand for gas by, and is cost-  
457 effective for, in-state ratepayers; (ii) such contract compares favorably to other reasonably  
458 available options in terms of its impact on rates, the economy, environment, climate, local  
459 communities, public health, safety and welfare; (iii) the parties to the proposed contract have  
460 attempted, in good faith, to identify and evaluate alternatives that would reduce or eliminate the  
461 need for private land takings or public land disposition including, but not limited to, expanded  
462 and more long-term utilization of existing gas infrastructure, distribution system repairs and  
463 upgrades, contracts for gas storage along unconstrained pipeline corridors, enhancement of peak-

464 shaving measures and colocation of gas infrastructure with major roadways; and (iv) for  
465 contracts exceeding a term of 3 years, the parties to the proposed contract have attempted, in  
466 good faith, to identify and evaluate demand-side options to reduce or eliminate the need for new  
467 gas infrastructure.

468 SECTION 36. Section 134 of said chapter 164, as so appearing, is hereby amended by  
469 adding the following subsection:-

470 (c)(1) As used in this subsection, the following words shall have the following meanings  
471 unless the context clearly requires otherwise:

472 “Alternative compliance payment” or “ACP”, an amount established by the department  
473 of energy resources that retail electricity suppliers may pay in order to discharge their renewable  
474 energy portfolio standard obligation required under section 11F of chapter 25A.

475 “Community empowerment contract” or “contract”, an agreement between a municipality  
476 and the developer, owner or operator of a renewable energy project.

477 “Customer”, an electricity end-use customer of an electric utility distribution company  
478 regardless of how that customer receives energy supply services.

479 “Department”, the department of public utilities.

480 “Large commercial customer”, a large commercial, industrial or institutional customer, as  
481 further defined by the department of energy resources utilizing existing usage-based tariff  
482 structures.



483           “Municipality”, a city or town or a group of cities or towns that is not served by a  
484 municipal lighting plant and meet the eligibility criteria under paragraph (9).

485           “Participant”, a customer within a municipality that has entered into a community  
486 empowerment contract; provided, however, that the customer did not opt out of, or is prevented  
487 from participating in, the community empowerment contract under subsection (d).

488           “Renewable energy certificate”, a certificate representing the environmental attributes of  
489 1 megawatt hour of electricity generated by a renewable energy project, the creation, use and  
490 retirement of which is administered by ISO New England, Inc.

491           “Renewable energy portfolio standard”, the renewable energy portfolio standard  
492 established in section 11F of chapter 25A.

493           “Renewable energy project” or “project”, a facility that generates electricity using a Class  
494 1 renewable energy resource and is qualified by the department of energy resources as eligible to  
495 participate in the renewable energy portfolio standard and to sell renewable energy certificates  
496 under the program.

497           “Residential customer”, a utility distribution customer that is a private residence or group  
498 of residences, as further defined by the department of energy resources, utilizing existing usage-  
499 based tariff structures.

500           “Small commercial customers”, a small or medium commercial, industrial or institutional  
501 utility distribution customer, as further defined by the department of energy resources, utilizing  
502 existing usage-based tariff structures.

503           (2) A municipality may, on behalf of the electricity customers within the municipality,  
504 enter into a community empowerment contract with a company that proposes to construct a  
505 renewable energy project. A municipality may enter into more than 1 community empowerment  
506 contract and may enter into new contracts at any time.

507           (3) A community empowerment contract shall be subject to the following conditions:

508           (i) the contract shall be between the municipality and the company proposing to construct  
509 a renewable energy project; provided, however, that this section shall not authorize a  
510 municipality to utilize its collateral, credit or assets as collateral or credit support to the  
511 counterparty of the contract and a municipality may do so only as otherwise authorized by law;

512           (ii) the renewable energy project specified in the contract shall not have begun  
513 construction prior to the contract having been entered into by the municipality;

514           (iii) the contract shall be structured as a contract for differences so as to stabilize  
515 electricity prices for participants and shall specify a fixed price for the energy and renewable  
516 energy certificates to be generated by the project; provided, however, that the contract shall also  
517 specify a means by which the project's contracted amount of energy and renewable energy  
518 certificates shall be sold to a third party, at a price established by the wholesale market or an  
519 index and as agreed by the parties to the contract, and the proceeds from which shall be credited  
520 to the amount owed from the participants to the project; provided further, that if the amount  
521 earned in a sale exceeds the agreed fixed price, the participants shall be credited from the project  
522 for the difference between the sale price and the contracted fixed price; and provided further, that  
523 a contract shall not be an agreement to physically deliver electric energy to the participants but it  
524 may require delivery of renewable energy certificates;

525 (iv) the contract shall specify whether renewable energy certificates from the renewable  
526 energy project are to be provided and, if so provided, shall specify how the renewable energy  
527 certificates are to be transmitted and disposed of or retired; provided, however, that renewable  
528 energy certificates purchased through a contract may be: (A) assigned to the load of each  
529 participant or subset of participants, as stipulated in the contract, so as to increase the amount of  
530 renewable energy attributed to use by the participants in the aggregate; or (B) sold in a  
531 transparent, competitive process, the proceeds from which shall be applied to the contract for  
532 differences mechanism under clause (iii); and provided further, that a renewable energy  
533 certificate purchased through a contract shall not be used by a basic service supply provider or  
534 competitive supply provider to meet its requirements under the renewable energy portfolio  
535 standard unless the renewable energy certificate is first sold to the supplier in a competitive,  
536 transparent process under this clause;

537 (v) the contract shall have a term of not less than 10 years from the time the specified  
538 renewable energy project commences operation;

539 (vi) the contract shall describe the calculations by which a charge or credit to a  
540 participant or to the renewable energy project are calculated based on the contract for differences  
541 mechanism under clause (iii); provided, however, that the calculations shall ensure full payment  
542 or credit to the renewable energy project even if a participant does not make full payment of the  
543 participant's distribution utility bill; provided further, that if there is a nonpayment of all or a  
544 portion of a distribution utility bill, an increase in charges to the contract participants may be  
545 used to ensure sufficient revenue to meet obligations to the project; and provided further, that the  
546 contract shall specify a contract administrator who shall perform the calculations under this

547 subsection and determine, for implementation by the distribution utility, the charges and credits  
548 due to the project, participants, distribution utility and others as required by the contract; and

549 (vii) the contract may exempt for differences mechanism residents of the municipality  
550 who receive low-income electric rates.

551 (4) A town may enter into a community empowerment contract upon authorization by a  
552 majority vote of town meeting, town council or other municipal legislative body. A city may  
553 authorize a community empowerment contract by a majority vote of the city council or  
554 municipal legislative body, with the approval of the mayor or the city manager in a Plan D or  
555 Plan E form of government. Two or more municipalities may initiate a process jointly to  
556 authorize community empowerment contracting by a majority vote of each municipality under  
557 this paragraph. Prior to an authorizing vote, a public hearing shall be held to inform the  
558 municipalities of the proposed contract, the impact on residents and information on how to opt  
559 out of the contract if it proceeds. This hearing shall specify the proposed project under the  
560 contract and the length of the contract. An entity that is not a party to the contract shall estimate  
561 the contract's rate impacts under reasonable scenarios for future energy prices and the estimates  
562 shall be presented. The proposed project and contract information, estimated rate impact on  
563 constituents, procedure for customers to opt out of the proposed contract and information  
564 regarding the public hearing shall also be mailed to the residents of the municipalities 30 days  
565 before the hearing.

566 (5) The electricity customers within a municipality shall be required to participate in a  
567 community empowerment contract; provided, however, that a customer may opt not to  
568 participate in a contract if the customer provides notice to an administrator designated by the

569 municipality within 90 days after the vote authorizing a contract or, in the case of a residential  
570 user receiving a low-income electric rate, at any time. No customer shall be a participant in a  
571 contract if that customer uses more than 5 per cent of the total annual electricity usage of the  
572 electricity customers located within a single municipality that is a party to the contract or, in the  
573 case of a contract with a group of municipalities, 5 per cent of the total annual electricity usage  
574 of the electricity customers located in the group of municipalities that are parties to the contract.  
575 Residential and small commercial customers that establish service within a municipality after the  
576 municipality enters into a community empowerment contract shall be required to participate in  
577 any community empowerment contracts in effect for the municipality at the time the new service  
578 is established. A large commercial customer within a municipality may become a participant  
579 unless otherwise prohibited and, upon electing to become a participant, shall remain a participant  
580 for the remainder of the community empowerment contract as long as the large commercial  
581 customer continues to be located within the municipality.

582 (6) The department shall promulgate regulations, guidelines or orders that:

583 (i) establish the manner in which a municipality may request from a distribution utility,  
584 and which the distribution utility shall provide in a timely manner, the summary historic load and  
585 payment information of the electricity customers within the municipality that is necessary for a  
586 municipality to request and analyze a proposal for a community empowerment contract;  
587 provided, however, that the distribution utility may charge the municipality for verifiable,  
588 reasonable and direct costs associated with providing the information as approved by the  
589 department generally or on a case-by-case basis;

590 (ii) establish a procedure by which a municipality shall have a community empowerment  
591 contract approved by the department; provided, however, that a community empowerment  
592 contract shall not take effect until so approved and the department shall be obligated to and shall  
593 approve a contract that meets the requirements under this section; and provided further, that in  
594 establishing the approval procedure, the department shall adopt means to minimize the  
595 administrative and legal costs to municipalities to the maximum extent possible;

596 (iii) establish guidelines or standards by which the contract administrator under clause  
597 (vi) of paragraph (3) shall: (A) provide utility adjustments to charges to the distribution or credits  
598 to participants via a line item on the distribution utility bill; and (B) provide information to the  
599 distribution utility that is necessary to enable it to make or receive payments to or from the  
600 project and to others as necessary; provided, however, that each community empowerment  
601 contract shall be indicated on a participant's distribution utility bill by a line item specific to the  
602 contract; provided further, that a distribution utility may recover verifiable and reasonable costs  
603 for the implementation of this subsection from a contract party or participant except as provided  
604 for in clause (iv); provided further, that should implementation of this subsection require changes  
605 to the distribution utility company's billing system that would not otherwise be incurred, the cost  
606 of implementing such changes shall, upon approval by the department as being verifiable,  
607 reasonable and necessary to implement this subsection, be paid for by ACP funds or, if available  
608 ACP funds are insufficient, by the Massachusetts Renewable Energy Trust Fund established  
609 under section 9 of chapter 23J.

610 (iv) establish guidelines or standards by which distribution company customers may  
611 receive or access accurate energy source disclosure information, taking into account the  
612 renewable energy certificates that may be ascribed to each customer's electricity usage and

613 regardless of the source from which the renewable energy certificates were supplied or  
614 purchased; provided, however, that should implementation of this subsection require changes to  
615 the distribution utility company's billing system that would not otherwise be incurred, the cost of  
616 implementing such changes shall, upon approval by the department as being verifiable,  
617 reasonable and necessary to implement this subsection, be paid for by ACP funds or, if available  
618 ACP funds are insufficient, by the Massachusetts Renewable Energy Trust Fund established  
619 under section 9 of chapter 23J.

620 (7) The department of energy resources shall promulgate regulations or guidelines that:

621 (i) establish the manner in which, in the case of a community empowerment contract in  
622 which the renewable energy certificates are to be assigned to participants, the renewable energy  
623 certificates may be transmitted and retired appropriately and the energy source disclosure  
624 information accurately provided to participants; and

625 (ii) establish recommended practices to ensure transparency and accountability on the  
626 part of a municipality in entering into and managing a community empowerment contract,  
627 including the means by which an executed community empowerment contract shall be available  
628 for public inspection and recommendations for a municipality to follow in order to ensure  
629 compliance with the requirements for entering into a community empowerment contract.

630 The department of energy resources shall also provide technical assistance to a  
631 municipality regarding a community empowerment contract upon request.

632 (8) A community empowerment contract shall be in addition to, and aside from, an  
633 electricity supply contract that a customer may have at the time of the contract or that that the

634 customer may later seek to establish. A municipality that enters into a community empowerment  
635 contract under this subsection shall not be considered a wholesale or retail electricity supplier. A  
636 community empowerment contract shall not require participants to change their choice of  
637 electricity supplier regardless of whether the supplier is a competitive supplier or a basic service  
638 supplier.

639 SECTION 37. Section 138 of said chapter 164, as so appearing, is hereby amended by  
640 inserting after the word “entity”, in line 96, the following words:- or publicly-assisted housing  
641 or its residents.

642 SECTION 38. Said section 138 of said chapter 164, as so appearing, is hereby further  
643 amended by striking out, in lines 122 and 123, the words “is assigned 100 per cent of the output”  
644 and inserting in place thereof the following words:- or publicly-assisted housing or its residents  
645 are assigned 100 per cent of the output or net metering credits.

646 SECTION 39. Said section 138 of said chapter 164, as so appearing, is hereby further  
647 amended by inserting after the definition of “Net metering facility of a municipality or other  
648 governmental entity” the following definition:-

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

650 SECTION 40. Section 139 of said chapter 164, as so appearing, is hereby amended by  
651 striking out, in lines 62 and 63, the words “and that are located in the same ISO-NE load zone  
652 to” and inserting in place thereof the following words:- , regardless of which ISO-NE load zone  
653 the customers are located in, to.



654 SECTION 41. Said section 139 of said chapter 164, as so appearing, is hereby further  
655 amended by inserting after the word “charges”, in line 85, the second time it appears, the  
656 following words:- , including demand charges as part of a monthly minimum reliability  
657 contribution except as authorized under subsection (j).

658 SECTION 42. Said section 139 of chapter 164 of the General Laws, as so appearing, is  
659 hereby amended by striking out subsection (f) and inserting in place thereof the following  
660 subsection:-

661 (f) No aggregate net metering cap shall apply to a solar net metering facility; provided,  
662 however, that the maximum amount of generating capacity eligible for net metering by a  
663 municipality or other governmental entity shall be 10 megawatts.

664 SECTION 43. Subsection (i) of said section 139 of said chapter 164, as so appearing, is  
665 hereby amended by adding the following 3 sentences:- Any facility which is at least 75 per cent  
666 owned by, or at least 75 per cent of which is producing net metering credits for, 3 or more  
667 individual residential customers, including a neighborhood net metering facility, in which no one  
668 residential customer owns more than 60 kilowatts of design capacity or receives more credits  
669 than the amount of credits produced annually by a facility with a 60 kilowatt design capacity  
670 shall be exempt from subsections (b½) and (k) and may net meter and accrue Class I net  
671 metering credits. Any such facility shall also be exempt from any limit on the aggregate net  
672 metering capacity set by subsection (f). An agricultural net metering facility utilizing anaerobic  
673 digestion technology or an anaerobic digestion net metering facility shall be exempt from  
674 aggregate net metering capacity caps under subsection (f) and may net meter and accrue Class I,  
675 II, or III net metering credits.

676 SECTION 44. Said section 139 of said chapter 164, as so appearing, is hereby further  
677 amended by inserting after the word “system”, in line 150, the following words:- ;provided,  
678 however, that a distribution company shall not assess a demand charge unless it is a charge based  
679 on demand during a predetermined portion of the hours of a day defined as peak hours of system  
680 demand and unless the distribution company has informed all of its customers of the manner in  
681 which any such demand charges are assessed; and provided further, that a distribution company  
682 shall only assess a demand charge if metering functionality or technology is available to the  
683 customer at a reasonable cost to provide the customer with near real time access to electricity  
684 usage data.

685 SECTION 45. Said section 139 of said chapter 164, as so appearing, is hereby further  
686 amended by striking out, in lines 175 to 177, inclusive, the words “; provided that, the date  
687 designated by the department shall be not later than December 31, 2018”.

688 SECTION 46. Said chapter 164 is hereby further amended by adding the following  
689 section:-

690 Section 146. (a) For the purposes of this section, “lost and unaccounted for gas” shall  
691 mean an amount of gas that is the difference between the total gas purchased by a gas company  
692 and the sum of: (i) total gas delivered to customers; and (ii) total gas used by a gas company in  
693 the conduct of its operations.

694 (b) The department shall issue regulations requiring all gas companies to report to the  
695 department, in a uniform manner, lost and unaccounted for gas for each year. Such standards  
696 shall include: (i) a method using operational and billing data to determine the total amount of lost  
697 and unaccounted for gas and to identify and measure each of its components; and (ii) a method

698 using engineering characteristics and operational data to identify and measure all sources and  
699 locations where lost and unaccounted for gas occurs in the natural gas systems.

700 (c) The department may grant waivers from regulatory requirements as necessary for the  
701 development of innovative projects to reduce lost and unaccounted for gas. Such innovative  
702 projects shall be intended to reduce costs to ratepayers and to reduce greenhouse gas emissions.

703 An application for a waiver shall include the goals of the innovative project, the expected  
704 cost, the expected benefit to ratepayers and the expected reduction in greenhouse gas emissions.

705 SECTION 47. Section 83B of chapter 169 of the acts of 2008, inserted by section 12 of  
706 chapter 188 of the acts of 2016, is hereby amended by adding the following definition:-

707 “Offshore wind energy transmission”, transmission that delivers electricity from offshore  
708 wind energy generation to the transmission system on the mainland.

709 “Offshore wind energy transmission developer”, a provider of electric transmission for  
710 offshore wind energy generation.

711 SECTION 48. Subsection (b) of section 83C of said chapter 169, as appearing in said  
712 section 12 of said chapter 188, is hereby amended by striking out, in lines 16 and 17, the words  
713 “; provided, however” and inserting in place thereof the following words:- and may specify that  
714 the distribution companies in coordination with the department of energy resources may  
715 competitively procure and that the distribution companies may select any proposals for offshore  
716 wind energy transmission sufficient to deliver energy generation procured pursuant to this  
717 section from designated wind energy areas for which an initial federal lease was issued on a  
718 competitive basis after January 1, 2012 that may be developed independent of such offshore

719 wind energy generation; provided, however, that such transmission service shall be made  
720 available for use by more than 1 wind energy generation project and shall not exceed the  
721 generation capacity required by this section; provided further, that any selection of offshore wind  
722 energy transmission shall be the most cost-effective mechanism for procuring reliable, low-cost  
723 offshore wind energy transmission service for ratepayers in the commonwealth; and provided  
724 further.

725 SECTION 49. Subsection (d) of said section 83C of said chapter 169, as so appearing, is  
726 hereby amended by inserting after the word “bid”, in line 11, the following words :- or  
727 independently as offshore wind energy transmission.

728 SECTION 50. Section 16 of chapter 298 of the acts of 2008 is hereby amended by  
729 striking out, in lines 3 and 4, the words “, and shall expire on December 31, 2020”.

730 SECTION 51. The secretary of energy and environmental affairs shall conduct a detailed,  
731 quantitative modeling and analysis of the commonwealth’s energy economy and emissions,  
732 which shall be sufficient to identify multiple technically and economically-feasible pathways  
733 to reduce statewide emissions consistent with the 2050 emissions limit required by subsection (b)  
734 of section 3 of chapter 21N of the General Laws. Such modeling and analysis shall include back-  
735 casting planning considerations and may be conducted in conjunction with other states or regional  
736 entities as part of an analysis of reducing regional emissions by 2050 to a level consistent with  
737 those required by said chapter 21N. The secretary shall publish the results of its modeling and  
738 analysis and shall make the model, all model assumptions and all input and output data available  
739 for public inspection and use. The secretary shall file a report of its findings with the clerks of  
740 the senate and house of representatives, the senate and house committees on ways and means and

741 the joint committee on telecommunications, utilities and energy not later than December 31,  
742 2020.

743 SECTION 52. (a) Notwithstanding any general or special law to the contrary, the  
744 department of energy resources may analyze and recommend offshore wind energy generation  
745 solicitations and procurements of up to 5,000 megawatts of aggregate nameplate capacity by  
746 December 31,2035 if the department, after investigation, makes a written finding that procuring  
747 more than the 1,600 megawatts required by section 83C of chapter 169 of the acts of 2008 is  
748 consistent with the commonwealth's energy policy, including the policies established in said  
749 chapter 169 and chapter 298 of the acts of 2008 and after consideration of the economic benefits  
750 of additional nameplate capacity, the effect on commercial fisheries and operations and the  
751 impact on ratepayers, including distribution company customers. The department shall publish a  
752 plan to effectuate any such additional solicitations and procurements which shall include the  
753 recommendations of the joint procurement taskforce established in subsection (c). The plan shall  
754 also identify any potential adverse impacts on the commercial and recreational marine fisheries  
755 of the commonwealth in addition to potential methods to mitigate those impacts. Notwithstanding  
756 the requirements of this section, as part of the plan, the department may require different  
757 solicitation, evaluation and selection of parties as required by said section 83C of said chapter  
758 169 if such changes are recommended by the joint procurement taskforce or will benefit  
759 distribution company customers. The department shall hold at least 1 public hearing to consider  
760 the economic benefits of up to 5,000 megawatts of aggregate nameplate capacity and the impact  
761 of such subsequent solicitations and procurements on the commonwealth's energy policies under  
762 this subsection, the commonwealth's fisheries and commercial fishing industry and on

763 ratepayers, including distribution company customers. The plan required to be published under  
764 this subsection shall be filed with the clerks of the senate and the house of representatives.

765 (b) Notwithstanding any general or special law to the contrary, the department of energy  
766 resources may analyze and recommend clean energy generation solicitations and procurements  
767 for more than the 9,450,000 megawatts-hours as required by section 83D of chapter 169 of the  
768 acts of 2008 if the department, after investigation, makes a written finding that doing so is  
769 consistent with the commonwealth's energy policy, including the policies established in said  
770 chapter 169 and chapter 298 of the acts of 2008 and after consideration of the economic benefits  
771 of additional clean energy generation and the impact on ratepayers, including distribution  
772 company customers. The department shall publish a plan to effectuate any such additional  
773 solicitations and procurements which shall include the recommendations of the joint  
774 procurement taskforce established in subsection (c). Notwithstanding the requirements of this  
775 section, as part of the plan, the department may require different solicitation, evaluation and  
776 selection of parties as required by said section 83D of said chapter 169 if such changes are  
777 recommended by the joint procurement taskforce or will benefit distribution company customers.  
778 The department shall hold at least 1 public hearing to consider the economic benefits of more  
779 than 9,450,000 megawatts-hours of clean energy generation and the impact of such subsequent  
780 solicitations and procurements on the commonwealth's energy policies under this subsection and  
781 on ratepayers, including distribution company customers. The plan required to be published  
782 under this subsection shall be filed with the clerks of the senate and the house of representatives.

783 (c) There shall be a joint procurement taskforce consisting of the commissioner of energy  
784 resources, the attorney general and representatives of the distribution companies to conduct a  
785 review of the procurements conducted pursuant to sections 83C and 83D of chapter 169 of the

786 acts of 2008 to identify and report on the challenges and strengths in the respective procurement  
787 processes and to make recommendations to improve the process for future procurements. The  
788 taskforce shall: (i) compare the requirements of sections 83C and 83D of said chapter 169 to  
789 similar procurements in other states; (ii) examine the makeup of the procurement evaluation and  
790 selection teams; (iii) review the evaluation metrics as identified in the request for proposals and  
791 applied in the evaluation process; (iv) analyze the selection process utilized; (v) review the  
792 consideration given to economic impacts; (vi) consider the impact and feasibility of reducing the  
793 timeline of implementation between procurements under section 83C of said chapter 169; and  
794 (vii) analyze the impact of the procurements on distribution customers and energy markets. The  
795 taskforce shall make recommendations on improvements to the procurement process including,  
796 but not limited to: (1) changing the solicitation parties, the evaluation team and the selection  
797 team; (2) the appropriate role of the distribution companies in the process; (3) the evaluation  
798 metrics; (4) the impact of additional procurements on the price and availability of renewable  
799 energy credits pursuant to section 11F of chapter 25A of the General Laws; and (5) the efficacy  
800 of additional procurements. The task force shall file its report with the clerks of the senate and  
801 house of representative, the house and senate committees on ways and means and the joint  
802 committee on telecommunications, utilities and energy not later than December 31, 2019.

803 SECTION 53. (a) The department of environmental protection shall promulgate  
804 regulations requiring producers, importers and wholesale distributors that sell, supply or offer for  
805 sale transportation fuels in the commonwealth to report to the department all sales of  
806 transportation fuel sales made in the commonwealth and the source of any fuel sold to the  
807 department. The regulations shall require the Department of Environmental Protection to  
808 compute and track the individual and collective lifecycle greenhouse gas emissions of all fuels,

809 as well as the carbon intensity of each fuel, that are reported by regulated entities on an annual  
810 basis.

811 (b) All sales, lifecycle greenhouse gas emissions and carbon intensity data collected or  
812 computed by the department pursuant to the regulations required by subsection (a) shall be  
813 published by the department in an annual report that shall be made available to the public.

814 SECTION 54. The Massachusetts Department of Transportation, in consultation with the  
815 department of state police, shall conduct a feasibility study on authorizing an electric vehicle as  
816 defined in section 16 of chapter 25A of the General Laws to travel in lanes designated for use by  
817 high-occupancy vehicles notwithstanding the number of occupants in the vehicle. The study shall  
818 include, but not be limited to: (i) an examination of existing capacity in lanes designated for use  
819 by high-occupancy vehicles; (ii) the impact of additional electric vehicles in the lanes; and (iii) a  
820 plan to properly differentiate eligible electric vehicles to ensure appropriate access to the  
821 designated lanes. The department shall file a report on the results of the study with the clerks of  
822 the senate and the house of representatives and the chairs of the joint committee on  
823 transportation not later than July 31, 2019.

824 SECTION 55. The Massachusetts Department of Transportation, in consultation with the  
825 executive office of energy and environmental affairs, shall develop and implement a program to  
826 promote private electric vehicle ownership with the goal of ensuring that 25 per cent of motor  
827 vehicles owned or leased in the commonwealth shall be electric vehicles by December 31, 2028.  
828 The department shall promulgate regulations necessary to implement this program.

829 SECTION 56. Notwithstanding any general or special law to the contrary, the department  
830 of public utilities, in consultation with the department of energy resources, shall develop a plan



831 to facilitate the authorization and regulation of the creation of new municipal light districts in  
832 municipalities that choose to undertake such action. The plan shall include, but not be limited to,  
833 the acquisition or creation of the necessary infrastructure and mechanisms to acquire and deliver  
834 electricity to customers within the district. The department shall submit the plan to the clerks of  
835 the senate and the house of representatives and the chairs of the joint committee on  
836 telecommunications, utilities and energy not later than December 31, 2018.

837 SECTION 57. Notwithstanding any general or special law to the contrary, no new  
838 natural gas compressor station shall be located in an area that is less than 0.5 miles in linear  
839 distance from: (i) a playground;(ii) a licensed day care center; (iii) a school; (iv) a church; (v) an  
840 environmental justice population neighborhood; (vi) an area of critical environmental concern as  
841 determined by the secretary of environmental affairs under 301 CMR 12.00; (vii) a waterway  
842 preserved and protected for water-dependent uses under chapter 91; or (viii) an area occupied by  
843 residential housing. Linear distance shall be measured from any point along a natural gas  
844 compressor station to the outermost point of buildings or areas in clauses (i) to (viii), inclusive;  
845 provided, however, that repairs or replacements that do not increase the capacity of a natural gas  
846 compressor station in operation prior to January 1, 2019, shall not be subject to this section. For  
847 the purposes of this section, “environmental justice population neighborhood” shall mean a  
848 neighborhood with an annual median household income of not more than 65 per cent of the  
849 statewide median income or with a segment of the population that consists of residents that is not  
850 less than 25 per cent minority, foreign born or lacking in English language proficiency based on  
851 the most recent United States census.

852 SECTION 58. (a) As used in this section, the following words shall have the following  
853 meanings unless the context clearly requires otherwise:

854 “Board”, the pension reserves investment management board established in section 23 of  
855 chapter 32 of the General Laws.

856 “Company”, a sole proprietorship, organization, association, corporation, partnership,  
857 joint venture, limited partnership, limited liability partnership, limited liability company or other  
858 entity or business association, including all wholly-owned subsidiaries, majority-owned  
859 subsidiaries, parent companies or affiliates of such entities or business associations that exist for  
860 profit-making purposes.

861 “Direct holdings”, all securities of a company held directly by the public fund or in an  
862 account or fund in which the public fund owns all shares or interests.

863 “Fossil fuel company”, a company identified by a Global Industry Classification System  
864 code in 1 of the following sectors: (i) coal and consumable fuels; (ii) integrated oil and gas; or  
865 (iii) oil and gas exploration and production.

866 “Indirect holdings”, all securities of a company held in an account or fund, including a  
867 mutual fund, managed by at least 1 person not employed by the public fund and in which the  
868 public fund owns shares or interests together with other investors not subject to this section.

869 “Public fund”, the Pension Reserves Investment Trust Fund established in subdivision (8)  
870 of section 22 of chapter 32 of the General Laws or the pension reserves investment management  
871 board charged with managing the pooled investment fund consisting of the assets of the State  
872 Employees’ and Teachers’ Retirement Systems and the assets of local retirement systems under  
873 the control of the board.

874 "Thermal coal", coal used to generate electricity, including coal which is burned to create  
875 steam to run turbines; provided, however, "thermal coal" shall not include metallurgical coal or  
876 coking coal used to produce steel.

877 "Thermal coal company", a publicly-traded company that generates at least 50 per cent of  
878 its revenue from the mining of thermal coal as determined by the board.

879 (b) Notwithstanding any general or special law to the contrary, within 30 days after the  
880 effective date of this act, the public fund shall facilitate the identification of all thermal coal and  
881 fossil fuel companies in which the fund owns direct or indirect holdings.

882 (c) Notwithstanding any general or special law to the contrary, the public fund shall take  
883 the following actions in relation to thermal coal companies in which the fund owns direct or  
884 indirect holdings:

885 (i) sell, redeem, divest or withdraw all publicly-traded securities of each thermal coal  
886 company identified pursuant to subsection (b) before December 31, 2020;

887 (ii) if recommended by the commission established in subsection (d), sell, redeem, divest  
888 or withdraw all publicly-traded securities of each fossil fuel company identified pursuant to  
889 subsection (b) according to the following schedule: (i) at least 33 per cent of such assets shall be  
890 removed from the public fund's assets under management before December 31, 2022; (ii) 67 per  
891 cent of such assets shall be removed from the public fund's assets under management before  
892 December 31, 2024; and (iii) 100 per cent of such assets shall be removed from the public fund's  
893 assets under management before December 31, 2025.

894           The public fund shall not acquire new assets or securities of thermal coal companies or, if  
895 so recommended by the commission established in subsection (d), fossil fuel companies.

896           (d) There shall be a special commission to investigate and study divestment of the public  
897 fund from fossil fuel companies, but not including thermal coal companies, as proposed by the  
898 schedule in subsection (c). The commission shall evaluate the benefits of divestment from fossil  
899 fuels, not including thermal coal, compared to any potential increased risk that divestment may  
900 pose to the commonwealth's pension funds and retirees.

901           The commission shall consist of: the state treasurer or a designee who shall serve as  
902 chair; the executive director of the public employee retirement administration commission or a  
903 designee; a member of the Retired State, County and Municipal Employees Association of  
904 Massachusetts; an active member of the Service Employees International Union who shall be  
905 designated by the state council; and 3 private citizens to be appointed by the governor who shall  
906 have expertise and current employment in environment, social and governance-related finance,  
907 institutional divestment or climate science.

908           The commission shall consult with experts in the relevant fields of economics, wealth  
909 management, fiduciary law and environmental sciences. The report shall include, but not be  
910 limited to: (i) recommendations on defining fossil fuel companies; (ii) a sensitivity analysis of  
911 the potential impact of divestment on the fund's return on investment, including an analysis of  
912 the potential impact that divestment from fossil fuel companies may have on the amortization  
913 schedules for the commonwealth's pension funds; (iii) an analysis and recommendations as to  
914 how to best incorporate assessment of carbon risk into the investment policy statement; (iv) an  
915 analysis of the potential environmental and policy benefits derived from divestment from fossil

916 fuel companies; (v) recommendations on divestment of indirect holdings, particularly regarding  
917 potential exceptions for mutual funds and index funds that may invest in fossil fuel companies;  
918 (vi) analysis of the potential impact that divestment may pose to companies and employees based  
919 in the commonwealth; and (vii) recommendations on effective administration and oversight of  
920 fossil fuel divestment.

921 The commission shall file its report and its recommendations, together with an actuarial  
922 analysis, if any, with the clerks of the senate and house of representatives, the chairs of the senate  
923 and house committees on ways and means and the chairs of the joint committee on public service  
924 not later than April 1, 2019.

925 (e) Notwithstanding this section, any requirement to divest the public fund from thermal  
926 coal or other fossil fuel companies shall not apply to indirect holdings in actively-managed  
927 investment funds; provided, however, that the public fund shall submit letters to the managers of  
928 the investment funds containing thermal coal or other fossil fuel companies requesting that they  
929 consider removing remove such companies from the investment fund or create a similar actively-  
930 managed fund with indirect holdings devoid of such companies. If the manager creates a similar  
931 fund, the public fund shall replace all applicable investments with investments in the similar fund  
932 in an expedited timeframe consistent with prudent investing standards. For the purposes of this  
933 section, private equity funds shall be deemed to be actively-managed investment funds.

934 (f) Notwithstanding any general or special law to the contrary, the public fund may cease  
935 divesting from companies under subsection (c), reinvest in companies from which it divested  
936 under said subsection (c) or continue to invest in companies from which it has not yet divested  
937 upon clear and convincing evidence showing that the total and aggregate value of all assets under

938 management by or on behalf of the public fund becomes: (i) equal to or less than 99.5 per cent;  
939 or (ii) 100 per cent less 50 basis points of the net value of all assets under management by or on  
940 behalf of the public fund in the previous year as a direct result of divestment. Cessation of  
941 divestment, reinvestment or any subsequent ongoing investment authorized by this section shall  
942 be strictly limited to the minimum steps necessary to avoid the contingency set forth in the  
943 preceding sentence. For any cessation of divestment and in advance of any cessation authorized  
944 by this subsection, the public fund shall provide a written report to the attorney general, the  
945 senate and house committees on ways and means and the joint committee on public service,  
946 updated semi-annually thereafter as applicable, setting forth the reasons and justification,  
947 supported by clear and convincing evidence, for its decisions to cease divestment, to reinvest or  
948 to remain invested in thermal coal.

949           This subsection shall also apply to any divestment of the public fund from fossil fuel  
950 companies.

951           (g) Present, future and former board members of the public fund, jointly and individually,  
952 state officers and employees and investment managers under contract with the public fund shall  
953 be indemnified from the General Fund and held harmless by the commonwealth from all claims,  
954 demands, suits, actions, damages, judgments, costs, charges and expenses, including court costs  
955 and attorneys' fees, and against all liability, losses and damages of any nature whatsoever that  
956 such present, future or former board members, state officers and employees and investment  
957 managers shall or may at any time sustain by reason of any decision to restrict, reduce or  
958 eliminate investments in fossil fuel companies.

959 (h) The public fund shall file a copy of the lists of thermal coal in which the fund owns  
960 direct or indirect interests with the clerks of the senate and the house of representatives and the  
961 attorney general within 30 days after of the effective date of this act. Annually thereafter, the  
962 public fund shall file a report with the clerks of the senate and the house of representatives and  
963 the attorney general which shall includes: (i) all investments sold, redeemed, divested or  
964 withdrawn in compliance with subsection (c); and (ii) all prohibited investments from which the  
965 public fund has not yet divested under said subsection (c). This subsection shall also apply to any  
966 divestment of the public fund from fossil fuel companies.

967 SECTION 59. The secretary of transportation and the Massachusetts Bay Transportation  
968 Authority control board established in section 200 of chapter 46 of the acts of 2015, in  
969 consultation with the executive office of energy and environmental affairs, shall develop and  
970 complete a detailed plan for the full electrification of all of the authority's passenger vehicles,  
971 including buses, ferries and commuter rail lines. The plan for electrification of the commuter rail  
972 shall include the procurement by purchase, lease or other method of electric locomotives, electric  
973 multiple unit equipment or a combination of both. The plan shall include the design and  
974 construction of high level platforms at all stations on each line. The overall plan shall include a  
975 detailed project schedule including all necessary procurement activities, leading to all of the  
976 authority's passenger vehicles being electric by December 31, 2030. The plan shall be filed with  
977 the clerks of the senate and house of representatives and the chairs of the joint committee on  
978 transportation and shall be made publicly available on the Massachusetts Department of  
979 Transportation's website not later than December 31, 2019.

980 SECTION 60. The secretary of energy and environmental affairs, in consultation with  
981 the secretary of administration and finance, shall file with the with the clerks of the senate and

982 house of representatives a cost-benefit analysis report which shall include, but not be limited to,  
983 an analysis of environmental and climate change implications, on the impacts to consumers and  
984 state, municipal government and school districts of any actions taken to comply with chapter 298  
985 of the acts of 2008. The report shall be filed not later than December 31, 2021.

986 SECTION 61. Notwithstanding any general or special law to the contrary, the state board  
987 of building regulations and standards established in section 93 of chapter 143 of the General  
988 Laws shall form a working group that may include representatives of the following trades:  
989 planning; real estate sales and brokerage; homebuilding; and solar installation to study the  
990 feasibility of requiring the installation of solar powered systems in newly-constructed housing as  
991 amendments to the state building and electric codes, and the feasibility of regulatory methods to  
992 promote housing that consumes a total amount of annual energy that is substantially equivalent  
993 to the amount of renewable energy generated on site, also known as net-zero housing. The  
994 working group shall report to the general court the result of its study and its recommendations, if  
995 any, together with drafts of legislation or regulations necessary to carry its recommendations into  
996 effect, by filing the same with the clerks of the senate and house of representatives not later than  
997 July 1, 2019.

998 SECTION 62. The Massachusetts Bay Transportation Authority shall issue a report on  
999 the development of a power management system to capture and reuse energy produced from  
1000 regenerative braking with authority trains. The report shall be filed with the clerks of the senate  
1001 and the house of representatives not later than December 31, 2019.

1002 SECTION 63. Clause (3) of subsection (a) section 11F of chapter 25A of the General  
1003 Laws, as appearing in section 25, shall apply to 2019 and each year thereafter.



1004 SECTION 64. Sections 41, 42 and 44 shall apply to any monthly minimum reliability  
1005 contribution, including a monthly minimum reliability contribution approved by the department  
1006 of public utilities to take effect on or before December 31, 2018. Any monthly minimum  
1007 reliability contribution approved by the department of public utilities prior to the effective date of  
1008 this section and said sections 41, 42 and 44 that does not meet the requirements of said sections  
1009 shall be refiled for review and approval by the department before taking effect.

1010 SECTION 65. The 2030 statewide greenhouse gas emissions limit required by subsection  
1011 (a) of section 4 of chapter 21N of the General Laws shall be adopted not later than January 1,  
1012 2021.

1013 SECTION 66. The 2040 statewide greenhouse gas emissions limit required pursuant to  
1014 subsection (a) of section 3 of chapter 21N of the General Laws shall be adopted not later than  
1015 January 1, 2021.

1016 SECTION 67. The department of energy resources shall establish the annual statewide  
1017 deployment targets to be achieved in each distribution company's and municipal lighting plant's  
1018 service territory in order to reach the 2,000 megawatt energy storage system target pursuant to  
1019 subsection (a) of section 17 of chapter 25A of the General Laws not later than December 31,  
1020 2018.

1021 SECTION 68. Anaerobic digestion facilities that are both operational and qualified as  
1022 Class I renewable energy generating sources under section 11F of chapter 25A of the General  
1023 Laws prior to the effective date of section 17 of said chapter 25A shall be eligible to participate  
1024 in the incentive program via a one-time procurement for the class I renewable generation  
1025 attributes created by existing anaerobic digestion facilities. The department shall determine

1026 eligibility criteria for existing anaerobic digestion facilities to participate in the one-time  
1027 procurement, with the total megawatts being procured equal to the combined capacity of all  
1028 eligible facilities. The 1-time procurement shall include a ceiling price equal to or greater than  
1029 the alternative compliance payment rate, not to exceed double the alternative compliance  
1030 payment rate established by the department under said section 11F of said chapter 25A.

1031 SECTION 69. The department of energy resources shall establish a pilot program for  
1032 anaerobic digestion technology that utilizes solid waste or organic materials otherwise eligible  
1033 under section 138 of chapter 164 of the General Laws up to 6 megawatts.

1034 SECTION 70. The department of energy resources shall establish the subsequent  
1035 statewide energy storage deployment target required pursuant to subsection (a) of section 17 of  
1036 chapter 25A of the General Laws not later than December 31, 2020.

1037 SECTION 71. The regulations required pursuant to clause (i) of the first paragraph of  
1038 section 7A of chapter 21N of the General Laws shall be promulgated and in effect not later than  
1039 December 31, 2020.

1040 SECTION 72. The regulations required pursuant to clause (ii) of the first paragraph of  
1041 section 7A of chapter 21N of the General Laws shall be promulgated and in effect not later than  
1042 December 31, 2021.

1043 SECTION 73. The regulations required pursuant to clause (iii) of the first paragraph of  
1044 section 7A of chapter 21N of the General Laws shall be promulgated and in effect not later than  
1045 December 31, 2022.

1046 SECTION 74. The regulations required by section 53 shall be promulgated within 180  
1047 days after the effective date of this act and shall take effect within 180 days after promulgation.

1048 SECTION 75. Subsection (g) of section 1B of chapter 164 of the General Laws shall  
1049 take effect on July 2, 2019.

1050 SECTION 76. Section 146 of chapter 164 of the General Laws shall take effect on  
1051 January 1, 2020; provided, however, that the regulations required to implement said section 146  
1052 of said chapter 164 shall be promulgated and in effect not later than December 31, 2019.

1053 SECTION 77. The regulations, guidelines or orders required by paragraphs (6) and (7) of  
1054 subsection (c) of section 134 of chapter 164 of the General Laws shall be promulgated not more  
1055 than 6 months after the effective date of this act.

1056 SECTION 78. Section 1L of chapter 164 of the General Laws shall take effect on  
1057 January 1, 2019; provided, however, that the department shall promulgate regulations to  
1058 implement said section 1L of said chapter 164 not later than January 1, 2019.

1059 SECTION 79. The 2050 emissions reduction plan required pursuant to subsection (h) of  
1060 section 4 of chapter 21N of the General Laws shall be completed not later than December 31,  
1061 2025.

1062 SECTION 80. Section 57 shall take effect upon a determination by the attorney general  
1063 that the section is constitutional.