



The Commonwealth of Massachusetts

IN THE YEAR OF TWO THOUSAND AND SEVEN

AN ACT RELATIVE TO THE MASSACHUSETTS GLOBAL WARMING SOLUTIONS ACT

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

1 SECTION 1. Chapter 6A of the General Laws, as so appearing, is hereby amended by inserting
2 after section 16G the following section:--

3 Section 16G1/2. Secretary, duties and responsibilities, programs for global warming.

4 The secretary of the executive office of housing and economic development, in
5 consultation with the executive office of energy and environmental affairs, shall create
6 and administer programs and incentives to foster manufacturing, development and
7 research in the renewable energy and energy efficiency sectors. At a minimum, the
8 secretary of the executive office of housing and economic development shall develop the
9 following programs, subject to appropriation:-

10 (a) The seed grant partnerships for research and venture investment programs,
11 which shall foster public/private partnerships between the state and the venture

12 community. Such programs shall provide grants to qualified university
13 researchers and validation stage ventures, expand the field of energy-focused
14 entrepreneurs and spark the cooperative development of commercial clean
15 energy companies through increased venture investment. The program shall
16 include but not be limited to a focus of providing grants to university energy
17 research projects and early-stage energy ventures seeking validation of their
18 science and intellectual property; and the establishment of an Energy
19 Entrepreneur program.

20 (b) Energy efficiency and renewable energy workforce development and
21 training programs, to increase the number of trained skilled workers in the
22 economic sectors of emerging clean energy, renewable energy, energy
23 efficiency, and demand resources. The program shall develop a plan to address
24 growing clean energy labor demands and talent gaps. Twenty percent of funding
25 shall be allocated towards training services for low-income and disadvantaged
26 adults. This program shall be designed to promote growth of the clean energy
27 economy by helping build a pipeline of well-trained skilled workers and
28 addressing emerging skills gaps in both the clean energy cluster and clean energy
29 adoption. The initiative shall include but not be limited to providing grants to
30 state universities, community colleges, vocational/technical schools and
31 organized labor for educational and certification programs targeted at both
32 engineering/technical needs in the cluster and serving end-user needs.

33 (c) Energy efficiency and renewable energy workforce development and training
34 programs to increase the number of trained skilled workers in the emerging clean

35 energy and renewable energy economic sectors. The administrator of the
36 program shall develop a plan to address growing clean energy labor demands and
37 talent gaps. Twenty percent of funding shall be allocated towards training
38 services for low-income and disadvantaged adults.

39 SECTION 2.

40 Section 19 of Chapter 6A of the General Laws, as so appearing, is hereby amended by striking
41 subsection (f) and inserting in place thereof the following two subsections:--

42 “(f) The secretary shall collaborate with other state agencies to reduce greenhouse gas
43 emissions in the Commonwealth, with the goal of reaching a 20% reduction in
44 greenhouse gas emission levels by 2020, and 80% by 2050. Those reductions shall be
45 based on 1990 levels.

46 (g) Nothing in this chapter shall be construed as conferring any powers or imposing any
47 duties upon the secretary with respect to the foregoing agencies and authorities except as
48 expressly provided by law.”

49 SECTION 3.

50 Section 1 of Chapter 16, as appearing in the 2006 Official Edition, is hereby amended by
51 striking clause (d) in its entirety and inserting in place thereof the following:--

52 “(d) The commissioner shall collaborate with other state agencies to reduce greenhouse
53 gas emissions. The department shall be guided by Chapter 21N and other relevant state
54 and federal laws, and in particular, by the stated goal of achieving 20% reduction in
55 greenhouse gas emissions by 2020, and 80% by 2050. These reductions shall be based
56 upon 1990 levels, as determined according to said Chapter 21N.

57 (e) The commissioner may promulgate rules and regulations to effectuate the purposes
58 of this chapter.”

59 SECTION 4.

60 Section 2 of Chapter 21A, as appearing in the 2006 Official Edition, is hereby amended by
61 inserting after clause (29) the following clause:--

62 “(30) consistent with chapter 21N, oversee state agency efforts to address and diminish
63 the impacts of global warming by coordinating state agency actions to reduce
64 greenhouse gas emission levels by 20% from 1990 levels by 2020, and 80% by 2050.”

65 SECTION 5. Section 8 of said Chapter 21A is hereby further amended by inserting after the
66 second paragraph the following paragraph:--

67 “The department of environmental protection shall assist in the implementation of
68 chapter 21N.”

69 SECTION 6. Section 16 of said chapter 21A is hereby further amended by inserting at the end
70 thereof the following new paragraph: --

71 “Any person who fails to comply with or otherwise violates chapter 21N or any
72 regulation adopted thereunder shall be liable for a civil administrative penalty not to exceed
73 \$25,000 for each day the violation continues.”

74 SECTION 7. The Massachusetts General Laws, as appearing in the 2006 Official Edition, are
75 hereby amended by inserting after Chapter 21M the following chapter:--

76 Chapter 21N. Massachusetts Global Warming Solutions Act.

77 Section 1. Definitions.

78 For the purposes of this chapter, the following terms have the following meanings:

79 “Allowance” means an authorization to emit, during a specified year, up to one ton of
80 carbon dioxide equivalent.

81 “Alternative compliance mechanism” means an action undertaken by a greenhouse gas
82 emission source that achieves the equivalent reduction of greenhouse gas emissions over
83 the same time period as a direct emission reduction, that is approved by the department,
84 and that is real, permanent, quantifiable, verifiable, and enforceable.

85 “Carbon dioxide equivalent” means the amount of carbon dioxide by weight that would
86 produce the same global warming impact as a given weight of another greenhouse gas,
87 based on the best available science, including from the Intergovernmental Panel on
88 Climate Change.

89 "Direct emissions" means emissions from sources that are owned or operated, in whole
90 or in part, by an entity or facility, including, but not limited to, emissions from factory
91 stacks, manufacturing processes and vents, and company owned or leased motor
92 vehicles.

93 “Department”, the department of environmental protection.

94 “Direct emission reduction” means a greenhouse gas emission reduction action made by
95 a greenhouse gas emission source at that source.

96 “Emissions reduction measure” means programs, measures, standards, and alternative
97 compliance mechanisms authorized pursuant to this chapter, applicable to sources or
98 categories of sources, that are designed to reduce emissions of greenhouse gases.

99 "Entity" means a person as defined in section 16 of chapter 21A that owns or operates,
100 in whole or in part, a source of greenhouse gas emissions from a generator of electricity

101 or a commercial or industrial site, which source may include, but not be limited to, a
102 transportation fleet.

103 “EOEEA”, means the executive office of energy and environmental affairs.

104 "Facility" means a building, structure or installation located on any one or more
105 contiguous or adjacent properties of an entity.

106 "Greenhouse gas" means any chemical or physical substance that is emitted into the air
107 and that the department may reasonably anticipate will cause or contribute to climate
108 change, including, but not limited to, carbon dioxide, methane, nitrous oxide,
109 hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride.

110 “Greenhouse gas emissions limit” means an authorization, during a specified year, to
111 emit up to a level of greenhouse gases specified by the department, expressed in tons of
112 carbon dioxide equivalents.

113 “Greenhouse gas emission source” or “source” means any source, or category of
114 sources, of greenhouse gas emissions whose emissions are at a level of significance, as
115 determined by the department, that its participation in the program established under this
116 chapter will enable the department to effectively reduce greenhouse gas emissions and
117 monitor compliance with the statewide greenhouse gas emissions limit.

118 "Indirect emissions" means emissions associated with the consumption of purchased
119 electricity, steam and heating or cooling by an entity or facility.

120 “Leakage” means the offset of a reduction in emissions of greenhouse gases within the
121 commonwealth by an increase in emissions of greenhouse gases outside the
122 commonwealth.

123 “Market-based compliance mechanism” means either of the following:

124 (1) A system of market-based declining annual aggregate emissions limitations for
125 sources or categories of sources that emit greenhouse gases.

126 (2) Greenhouse gas emissions exchanges, banking, credits, and other transactions,
127 governed by rules and protocols established by EOEEA or the Regional Greenhouse Gas
128 Initiative, that result in the same greenhouse gas emission reduction, over the same time
129 period, as direct compliance with a greenhouse gas emission limit or emission reduction
130 measure adopted by EOEEA pursuant to this chapter.

131 “Secretary”, the secretary of the executive office of energy and environmental affairs.

132 “Statewide greenhouse gas emissions” means the total annual emissions of greenhouse
133 gases in the commonwealth, including all emissions of greenhouse gases from the
134 generation of electricity delivered to and consumed in Massachusetts, accounting for
135 transmission and distribution line losses, whether the electricity is generated in state or
136 imported. Statewide emissions shall be expressed in tons of carbon dioxide equivalents.

137 “Statewide greenhouse gas emissions limit” or “statewide emissions limit” means the
138 maximum allowable level of statewide greenhouse gas emissions in a given year, as
139 determined by the executive office of environmental affairs pursuant to this chapter.

140 Section 2. Greenhouse Gas Registry and Inventory

141 The department shall monitor and regulate emissions of greenhouse gases with the goal
142 of reducing those emissions.

143 On or before January 1, 2009, the department shall adopt regulations to require the
144 reporting and verification of statewide greenhouse gas emissions and to monitor and
145 enforce compliance with this program. The regulations shall:

146 (1) Establish a regional greenhouse gas registry and reporting system for
147 greenhouse gas emission sources. In establishing the greenhouse gas registry
148 and reporting system, the department may collaborate with other states or a
149 regional consortium.

150 (2) Require that not later than April 15, 2009, and annually thereafter, the owner
151 or operator of any facility that is required to report air emissions data to the
152 department pursuant to Title V of the federal Clean Air Act and that has
153 stationary emissions sources that emit greenhouse gases shall report annually to
154 the regional registry direct stack emissions of greenhouse gases from such
155 sources.

156 (3) Require that not later than April 15, 2009, the owner or operator of any
157 facility that has stationary emissions sources that emit greenhouse gases in
158 excess of five thousand tons of greenhouse gases per year in carbon dioxide
159 equivalents shall report annually to the regional registry direct emissions of
160 greenhouse gases from such sources. The department shall develop a simplified
161 estimation form to assist facilities in determining who must report emissions.
162 The secretary shall consider, on an annual basis, requiring the expansion of
163 reporting to the regional greenhouse gas registry.

164 (4) Not later than July 1, 2009, provide for the voluntary reporting of emissions
165 of greenhouse gases to the regional greenhouse gas registry by entities and
166 facilities that are not required to submit information pursuant to subsections (2)
167 and (3) of this section but which do so on a voluntary basis. The greenhouse gas

168 emissions reported shall be of a type and format that the regional greenhouse gas
169 registry can accommodate.

170 (5) Not later than July 1, 2009, account for greenhouse gas emissions from all
171 electricity consumed in the commonwealth, including transmission and
172 distribution line losses from electricity generated within the commonwealth or
173 imported from outside the commonwealth. This requirement applies to all retail
174 sellers of electricity, including electric utilities, municipal electric departments,
175 and municipal light boards as defined in section 1 of Chapter 164A.

176 (6) Ensure rigorous and consistent accounting of emissions, and provide
177 reporting tools and formats to ensure collection of necessary data.

178 (7) Ensure that greenhouse gas emission sources maintain comprehensive records
179 of all reported greenhouse gas emissions.

180 In furtherance of the provisions of this section, the department shall:

181 (1) Consult with the secretary on periodic review and updates of emission
182 reporting requirements, as necessary.

183 (2) Review existing and proposed international, federal, and state greenhouse gas
184 emission reporting programs and make reasonable efforts to promote consistency
185 among the programs established pursuant to this part and other programs, and to
186 streamline reporting requirements on greenhouse gas emission sources.

187 Not later than December 31, 2009, and triennially thereafter, the department shall
188 publish a state greenhouse gas emissions inventory that includes comprehensive
189 estimates of the quantity of greenhouse gas emissions in the state for the last
190 three years in which data is available.

191 Section 3. Statewide Greenhouse Gas Emissions Limit

192 (a) On or before January 1, 2009, the department shall, after one or more public
193 hearings, with public notice, and an opportunity for all interested parties to comment,
194 determine what the statewide greenhouse gas emissions level was in 1990.

195 (b) The executive office, in consultation with the department and with the department of
196 clean energy, shall adopt a statewide greenhouse gas emissions limit that is equivalent to
197 20 percent below the 1990 level, to be achieved by 2020, and 80 percent below the 1990
198 level, to be achieved by 2050. The executive office shall also adopt incremental
199 reduction targets for the years 2005 through 2019, inclusive, and 2021 through 2050,
200 inclusive, that shall maximize the ability of the state to meet the statewide emissions
201 limits.

202 (c) Emissions levels and limits associated with the electric sector shall be established by
203 the executive office and the department, in consultation with the department of clean
204 energy, based on consumption and purchases of electricity from the regional electric
205 grid, taking into account the Regional Greenhouse Gas Initiative and the renewable
206 portfolio standard.

207 (d) In furtherance of achieving the statewide greenhouse gas emissions limit, by January
208 1, 2011, the department shall promulgate regulations establishing a desired level of
209 declining annual aggregate emission limits for sources or categories of sources that emit
210 greenhouse gas emissions, applicable from January 1, 2012, to December 31, 2020,
211 inclusive, that are in theory sufficient to meet the targets established in this section.

212 Section 4. Statewide Emissions Reduction Plan

213 On or before January 1, 2009, the executive office shall prepare and approve a plan for
214 achieving reductions in greenhouse gas emissions from sources or categories of sources
215 of greenhouse gases sufficient to achieve the statewide emissions limits set by 2020. The
216 executive office shall consult with all state agencies and regional authorities and
217 agreements with jurisdiction over sources of greenhouse gases on all elements of its plan
218 that pertain to energy related matters including, but not limited to, electrical generation,
219 load based-standards or requirements, the provision of reliable and affordable electrical
220 service, and statewide fuel supplies, to ensure the greenhouse gas emissions reduction
221 activities to be adopted and implemented by the executive office are complementary,
222 non-duplicative, and can be implemented in an efficient and cost-effective manner.

223 (b) The plan shall identify and make recommendations on direct emission reduction
224 measures, alternative compliance mechanisms, market-based compliance mechanisms,
225 and potential monetary and non-monetary incentives for sources and categories of
226 sources that the executive office finds are necessary or desirable to facilitate the
227 achievement of reductions of greenhouse gas emissions limits.

228 (c) In making the determinations required by subsection (b), the executive office shall
229 consider all relevant information pertaining to greenhouse gas emissions reduction
230 programs in other states, localities, and nations, including California, Canada, and the
231 European Union.

232 (d) The executive office shall evaluate the total potential costs and total potential
233 economic and non-economic benefits of the plan for reducing greenhouse gases to
234 Massachusetts' economy, environment, and public health, using the best available
235 economic models, emission estimation techniques, and other scientific methods.

236 (e) In developing its plan, the executive office shall take into account the relative
237 contribution of each source or source category to statewide greenhouse gas emissions,
238 and shall recommend a *de minimis* threshold of greenhouse gas emissions below which
239 emission reduction requirements will not apply.

240 (f) In developing its plan, the executive office shall identify opportunities for emission
241 reductions measures from all verifiable and enforceable voluntary actions.

242 (g) The executive office shall conduct a series of public hearings to give interested
243 parties an opportunity to comment on the plan. The executive office shall conduct a
244 portion of these workshops in regions of the state that have the most significant exposure
245 to air pollutants, including, but not limited to, communities with minority populations,
246 communities with low-income populations, or both.

247 (h) The executive office shall update its plan for achieving the maximum technologically
248 feasible reductions of greenhouse gas emissions at least once every five years.

249 Section 5. Global Warming Report

250 The EOEEA shall monitor the implementation of regulations relative to global warming,
251 and shall, by January 1, 2010, publish a report and recommendations regarding such
252 implementation. The report shall include a discussion of the following:--

253 (1) Whether regulations or other measures undertaken, including distribution of
254 emissions allowances, are equitable and minimize costs and maximize the total
255 benefits to Massachusetts, and encourage early action to reduce greenhouse gas
256 emissions;

257 (2) Whether activities undertaken to comply with state regulations and efforts
258 disproportionately impact low-income communities;

- 259 (3) Whether entities that have voluntarily reduced their greenhouse gas emissions
260 prior to the implementation of this section receive appropriate credit for early
261 voluntary reductions;
- 262 (4) Whether activities undertaken pursuant to the regulations complement, and
263 do not interfere with, efforts to achieve and maintain federal and state ambient
264 air quality standards and reduce toxic air contaminant emissions;
- 265 (5) Consider overall societal benefits, including reductions in other air pollutants,
266 diversification of energy sources, and other benefits to the economy,
267 environment, and public health;
- 268 (6) Whether state actions minimize the administrative burden of implementing
269 and complying with these regulations;
- 270 (7) Whether state actions minimize leakage;
- 271 (8) Consider the significance of the contribution of each source or category of
272 sources to statewide emissions of greenhouse gases;
- 273 (9) Whether greenhouse gas emission reductions achieved are real, permanent,
274 quantifiable, verifiable, and enforceable; and
- 275 (10) Recommendations for future policy action, legislative or otherwise.

276 This report, first published in 2010, shall be updated and re-issued every 5 years. The
277 secretary shall file the report with the house clerk, the joint committee on
278 telecommunications, utilities and energy and the joint committee on the environment,
279 natural resources and agriculture.

280 Section 6. Required Emission Reduction Measures

281 In developing its plan for achieving the statewide greenhouse gas emissions limits, the
282 Commonwealth and its agencies shall promulgate regulations that reduce energy use,
283 increase efficiency and encourage renewable sources of energy in the sectors of energy
284 generation, buildings, and transportation.

285 Section 7. Green Building Revolving Loan Fund.

286 The secretary of the executive office of energy and environmental affairs or its designee
287 shall, subject to appropriation, establish a green building revolving loan fund to provide
288 low interest financing for new construction or major renovation projects that exceed the
289 energy efficiency requirements of the state building code by 30%.

290 Section 8. Market Based Compliance Mechanisms

291 The executive office, in consultation with the fiscal agencies of the Commonwealth,
292 may consider the use of market-based compliance mechanisms to address global
293 warming concerns.

294 (a) Prior to the inclusion of any market-based compliance mechanism, to the
295 extent feasible and in furtherance of achieving the statewide greenhouse gas
296 emissions limit, the executive office shall do all of the following:

297 (1) Consider the potential for direct, indirect, and cumulative emission
298 impacts from these mechanisms, including localized impacts in
299 communities that are already adversely impacted by air pollution.

300 (2) Design any market-based compliance mechanism to prevent any
301 increase in the emissions of toxic air contaminants or criteria air
302 pollutants, with particular attention paid to emissions of nitrous oxide,
303 sulfur dioxide, and mercury.

304 (3) Maximize additional environmental and economic benefits for
305 Massachusetts, as appropriate.

306 (b) The executive office may adopt regulations governing how market-based
307 compliance mechanisms may be used by regulated entities subject to greenhouse
308 gas emission limits and mandatory emission reporting requirements to achieve
309 compliance with their greenhouse gas emissions limits.

310 (c) EOEEA and the department may work with the participating Regional
311 Greenhouse Gas Initiative states, and other interested states and Canadian
312 Provinces to develop a plan to expand market-based compliance mechanisms
313 such as the Regional Greenhouse Gas Initiative to other sources and sectors
314 necessary or desirable to facilitate the achievement of the greenhouse gas
315 emissions limits.

316 (d) The executive office shall monitor compliance with and enforce any rule,
317 regulation, order, emission limitation, emissions reduction measure, or market-
318 based compliance mechanism adopted by the executive office or department
319 pursuant to this chapter. In the instance of any violation, by either an
320 incorporated entity or an individual, of any rule, regulation, order, emission
321 limitation, emissions reduction measure, or other measure adopted by the
322 executive office pursuant to this chapter, the department shall impose a civil
323 administrative penalty consistent with section 16 of chapter 21A.

324 Section 9. Greenhouse Gas Emissions Advisory Committee

325 The executive office shall convene an advisory committee, of at least five members, to
326 advise it in overseeing the greenhouse emission reduction measures of this chapter and

327 elsewhere in general or special law. The advisory committee shall be comprised of
328 representatives from communities in the state with the most significant exposure to air
329 pollution, including, but not limited to, communities with minority populations or low-
330 income populations, or both; representatives of organizations with expertise in
331 environmental protection; representatives of organizations with expertise in energy
332 efficiency and renewable energy; and representatives of organizations doing business in
333 the Commonwealth.

334 Section 10. Economic and Technology Advancement Advisory Committee

335 The executive office shall appoint an Economic and Technology Advancement Advisory
336 Committee to advise the EOEEA on activities that will facilitate investment in and
337 implementation of technological research and development opportunities, including, but
338 not limited to, identifying new technologies, research, demonstration projects, funding
339 opportunities, developing state, national, and international partnerships and technology
340 transfer opportunities, and identifying and assessing research and advanced technology
341 investment and incentive opportunities that will assist in the reduction of greenhouse gas
342 emissions. The committee may also advise the EOEEA on state, regional, national, and
343 international economic and technological developments related to greenhouse gas
344 emission reductions.

345 Section 11. Commonwealth Utilities; authority

346 Nothing in this chapter shall affect the authority of the Commonwealth Utilities
347 Commission.

348 Nothing in this chapter shall affect the obligation of an electrical utility to provide
349 customers with safe and reliable electric service.

350 Nothing in this chapter shall preclude, prohibit, or restrict the construction of any new
351 facility or the expansion of an existing facility subject to regulation under this chapter, if
352 all applicable requirements are met and the facility is in compliance with regulations
353 adopted pursuant to this chapter.

354 Section 12. Power Plant Performance Standard

355 The Commonwealth shall not permit the construction of any new power plant or
356 expansion of any existing power plant where such power plant would have an emissions
357 rate of more than 1,100 lbs of carbon dioxide per megawatt-hour. In addition, to ensure a
358 net emissions rate that is not more than a new natural gas combined cycle power plant,
359 technologies for electric generation that qualify for energy portfolio standards shall not have
360 a net emissions rate of more than 1,110 lbs of carbon dioxide per megawatt-hour inclusive
361 of useful thermal output, gasification, fuel conversion, and sequestration.

362 Section 13. Climate Change Adaptation

363 (a) Definitions.

364 For the purposes of this section, the following words or phrases shall have the following
365 meanings:-

366 “Adaptation,” programs, projects and policies designed to strengthen, protect and restore
367 habitat and improve the ability of plant and animal species and natural communities to
368 adapt to and survive to climate change.

369 “Board,” the climate change advisory board established by subsection (c).

370 “Habitat” a natural area which, due to its physical or biological features, provides critical
371 elements for the growth and survival of plants or animals including but not limited to
372 natural areas for breeding, feeding, resting, and migrating. Physical or biological

373 features of habitat include, but are not limited to, structure and composition of
374 vegetation; faunal community; soils; water chemistry and quality; and geologic,
375 hydrologic, and microclimatic factors.

376 (b) State Adaptation Plan

377 (1) The executive office of energy and environmental affairs, in consultation with the
378 climate change advisory board established pursuant to subsection (c), shall promulgate a
379 written climate change adaptation plan, subject to periodic revision.

380 (2) The plan shall include a comprehensive assessment of the statewide impacts of climate
381 change on terrestrial, freshwater, estuarine, coastal, and marine habitat.

382 (3) The plan shall be used to develop and implement a statewide climate change adaptation
383 program for the commonwealth. The program shall ensure that state agencies integrate
384 adaptation into agency planning, projects, programs and policies. Said plan shall
385 consist of the following components:

386 (i) "research and assessment" to assess adaptation projects and programs that will
387 enable animals, plants and natural communities to adapt to climate change based on the
388 best available science and data;

389 (ii) "prioritization" to identify and protect animals, plants and natural communities most
390 adversely affected by climate change based on the best available science and data;

391 (iii) "program and policy development" to integrate the plan into state agency programs
392 and policies;

393 (iv) "budget" to review existing public funding sources and develop budget
394 recommendations; and

395 (v) "implementation" to implement the plan and assess the effectiveness of the plan
396 once implemented.

397 (4) The executive office of energy and environmental affairs shall provide opportunities for
398 public input during the development and implementation of the plan.

399 (5) The executive office of energy and environmental affairs shall complete the plan within
400 eighteen months of the effective date of this act.

401 (c) Climate Change Adaptation Advisory Board

402 The governor shall appoint 13 members of a climate change adaptation advisory board to assist
403 the secretary of energy and environmental affairs to develop and implement the plan pursuant to
404 subsection (b). The advisory board shall include the secretary, or his designee, who shall serve
405 as chair; the commissioner of the division of energy resources, or his designee; the
406 commissioner of the department of fish and game, or his designee; the commissioner of the
407 department of conservation and recreation, or his designee; the commissioner of the department
408 of environmental protection, or his designee; and, the commissioner of the department of
409 agricultural resources, or his designee; a representative of the massachusetts municipal
410 association; and, a representative of a regional planning agency. The secretary shall request the
411 directors of the nature conservancy, mass audubon, the trustees of reservations, environmental
412 league of massachusetts, appalachian mountain club, trust for public land, the union of
413 concerned scientists, and environment northeast to nominate eight candidates for the remaining
414 members of the advisory board. From the nominations received from such organizations, the
415 secretary shall select five candidates who he shall recommend to the governor. The governor
416 shall appoint the remaining five members from the candidates recommended by the secretary.

417 SECTION 8. Chapter 30, as appearing in the 2006 official edition, is hereby amended by
418 adding, after section 39S, the following sections:

419 Section 39T. Use of Ultra Low Sulfur Diesel Fuel and Best Available Retrofit Technology by
420 the State

421 (a) For the purposes of this section only, the following terms shall have the following meanings:

422 “Best Available Retrofit Technology” means technology, verified by the United States
423 Environmental Protection Agency or California Air Resources Board for reducing the emission
424 of pollutants that achieves reductions in particulate matter emissions at the highest classification
425 level for diesel emission control strategies that is applicable to the particular engine and
426 application. Such technology shall in no event result in a net increase in the emission of
427 nitrogen oxides.

428 "Heavy duty vehicle" or "vehicle" means any on-road or nonroad vehicle powered by diesel fuel
429 and having a gross vehicle weight of greater than 14,000 pounds.

430

431 "Ultra low sulfur diesel fuel" means diesel fuel having sulfur content of 0.0015 per cent of
432 sulfur or less.

433 “US EPA” means the United States Environmental Protection Agency.

434 (b) Any diesel powered heavy duty vehicle that is owned by, operated by or on behalf of, or
435 leased by or operating under contract to a state agency or state or regional public authority shall
436 be powered by ultra low sulfur diesel fuel.

437 (c) Any diesel powered heavy duty vehicle that is owned by, operated by or on behalf of, or
438 leased by or operating under a contract to a state agency or state or regional public authority
439 with more than half of its governing body appointed by the governor shall utilize best available
440 retrofit technology for reducing the emission of pollutants. The commissioner shall promulgate
441 regulations for the implementation of this subdivision specifying procedures for compliance
442 according to the following schedule:

443 (1) Not less than 33% of the vehicles covered by this subdivision shall employ best available
444 retrofit technology on or before December 31, 2008.

445 (2) Not less than 66% of the vehicles covered by this subdivision shall employ best available
446 retrofit technology on or before December 31, 2009.

447 (3) All vehicles covered by this subdivision shall employ best available retrofit technology on or
448 before December 31, 2010.

449 (d) This subdivision shall not apply to:

450 (1) any vehicle subject to a lease or public works contract entered into or renewed prior to July
451 1, 2008;

452 (2) vehicles that are specially equipped for emergency response by a state authority, office of
453 emergency management, sheriff's office, police department or fire department, as well as timber
454 harvesting equipment such as harvesters, wood chippers, log skidders, and other processing
455 equipment used exclusively off highway for timber harvesting and logging purposes, and farm
456 equipment;

457 (3) any on-road vehicle sold as “new” in compliance with the US EPA’s 2007 Heavy-duty
458 Highway Diesel Standards” promulgated by US EPA and published in the Federal Register at
459 66 Fed. Reg. 5002 on January 18, 2001, or

460 (4) any nonroad vehicle sold as “new” in compliance with the US EPA’s Tier 4 Nonroad Diesel
461 Standards” promulgated by US EPA and published in the Federal Register at 69 Fed. Reg.
462 38958 on June 29, 2004.

463 (e) In addition to other provisions for regulations in this section, the Commissioner shall
464 promulgate regulations as necessary and appropriate to carry out the provisions of this act
465 including but not limited to provision of waivers upon written finding by the Commissioner that
466 best available retrofit technology for reducing the emissions of pollutants as required by
467 subdivision (c) of this section is not available for an individual vehicle or class of vehicles.

468 (f) This section shall not apply where federal law precludes the state from imposing the
469 requirement of this section.

470 (g) On or before January 1, 2008 and every year thereafter, the Commissioner shall report to the
471 Governor and Legislature on the use of ultra low sulfur diesel fuel and the use of the best
472 available retrofit technology as required under this section. The information contained in this
473 report shall include, but not be limited to, for each state agency and public authority covered by
474 this section:

475 (1) the total number of diesel fuel-powered motor vehicles owned or operated by such agency
476 and authority;

- 477 (2) the number of such motor vehicles that were powered by ultra low sulfur diesel fuel;
- 478 (3) the total number of diesel fuel-powered motor vehicles owned or operated by such agency
479 and authority having a gross vehicle weight rating of more than 14,000 pounds;
- 480 (4) the number of such vehicles that utilized the best available retrofit technology, including a
481 breakdown by motor vehicle model, engine year and the type of technology used for each
482 vehicle;
- 483 (5) the number of such motor vehicles that are equipped with an engine certified to the
484 applicable 2007 US EPA standard for particulate matter as set forth in Section 86.007-11 of
485 Title 40 of the Code of Federal Regulations or to any subsequent US EPA standard for
486 particulate matter that is at least as stringent; and
- 487 (6) all waivers, findings, and renewals of such findings, which, for each waiver, shall include
488 but not be limited to, the quantity of diesel fuel needed to power diesel fuel-powered motor
489 vehicles owned or operated by such agency and authority; specific information concerning the
490 availability of ultra low sulfur diesel fuel.
- 491 (h) The department shall, to the extent practicable, coordinate with regions which have proposed
492 or adopted heavy duty emission inspection programs to promote regional consistency in such
493 programs.

494 Section 39U. Use of Diesel Retrofit Devices for Waste Haulers

- 495 (a) For the purposes of this section only, the following terms shall have the following meanings:

496 “Level 2 Control” means a Verified Diesel Emission Control Device that achieves a particulate
497 matter (PM) emission reduction of 50% or more compared to uncontrolled engine emission
498 levels.

499 “Level 3 Control” means a Verified Diesel Emission Control Device that achieves a particulate
500 matter (PM) emission reduction of 85% or more compared to uncontrolled engine emission
501 levels, or that reduces emissions to less than or equal to 0.01 grams of PM per brake
502 horsepower-hour. Level 3 Control includes repowering or replacing the existing diesel engine
503 with an engine meeting USEPA’s 2007 Heavy-duty Highway Diesel Standards, or in the case of
504 a nonroad engine, an engine meeting the USEPA’s Tier 4 Nonroad Diesel Standards.

505 (b) Any diesel powered waste collection and recycling vehicle in model years between and
506 including 1994 and 2006 that is owned, leased, or contracted to perform the removal or transfer
507 of municipal waste, including residential or commercial waste, or recycling services shall utilize
508 level 3 control retrofit technology for reducing the emission of pollutants. As of January 1,
509 2012, no waste collection or recycling vehicle in model years between and including 1994 and
510 2006 may be permitted to register without proper demonstration of the required level 3 control
511 retrofit technology. The Commissioner shall promulgate regulations for the implementation of
512 this subdivision specifying procedures for compliance according to the following schedule:

513 (1) At least 25% of the vehicles covered by this subdivision shall have level 3 control retrofit
514 technology on or before December 31, 2008.

515 (2) At least 50% of the vehicles covered by this subdivision shall have level 3 control retrofit
516 technology on or before December 31, 2009.

517 (3) At least 75% of the vehicles covered by this subdivision shall have level 3 control retrofit
518 technology on or before December 31, 2010.

519 (4) All vehicles covered by this subdivision shall have level 3 control retrofit technology on or
520 before December 31, 2011.

521 (c) Any diesel powered waste collection and recycling vehicle in model years 1993 and earlier
522 that is owned, leased, or contracted to perform the removal or transfer of municipal waste,
523 including residential or commercial waste, or recycling services shall utilize level 2 control
524 retrofit technology for reducing the emission of pollutants. As of January 1, 2011, no waste
525 collection or recycling vehicle in model years 1993 and earlier may be permitted to register
526 without proper demonstration of the required level 2 control retrofit technology. The
527 Commissioner shall promulgate regulations for the implementation of this subdivision
528 specifying procedures for compliance according to the following schedule:

529 (1) At least 25% of the vehicles covered by this subdivision shall have level 3 control retrofit
530 technology on or before December 31, 2008.

531 (2) At least 50% of the vehicles covered by this subdivision shall have level 3 control retrofit
532 technology on or before December 31, 2009.

533 (3) At least 75% of the vehicles covered by this subdivision shall have level 3 control retrofit
534 technology on or before December 31, 2010.

535 (4) All vehicles covered by this subdivision shall have level 3 control retrofit technology on or
536 before December 31, 2011.

537 (d) On or before January 1, 2008 and every year thereafter, the Commissioner shall report to the
538 Governor and Legislature on the use of level 3 and level 2 control retrofit technology on waste
539 collection and recycling vehicles required under this section. The information contained in this
540 report shall include, but not be limited to:

541 (1) the total number of diesel fuel-powered waste collection and recycling vehicles covered by
542 this section;

543 (2) the number of such diesel vehicles that were powered by ultra low sulfur diesel fuel;

544 (3) the total number of diesel fuel-powered waste collection and recycling vehicles having a
545 gross vehicle weight rating of more than 14,000 pounds;

546 (4) the number of such vehicles between and including model years 1994 and 2006;

547 (5) the number of such vehicles between and including model years 1994 and 2006 that utilized
548 level 3 control retrofit technology, including a breakdown by motor vehicle model, engine year
549 and the type of technology used for each vehicle;

550 (6) the number of such vehicles in model years 1993 and earlier;

551 (7) the number of such vehicles in model years 1993 and earlier that utilized level 2 control
552 retrofit technology, including a breakdown by motor vehicle model, engine year and the type of
553 technology used for each vehicle;

554 (8) the number of diesel waste collection and recycling vehicles that are equipped with an
555 engine certified to the applicable 2007 US EPA standard for particulate matter as set forth in

556 Section 86.007-11 of Title 40 of the Code of Federal Regulations or to any subsequent US EPA
557 standard for particulate matter that is at least as stringent; and

558 (9) all waivers, findings, and renewals of such findings, which, for each waiver, shall include
559 but not be limited to, the quantity of diesel fuel needed to power diesel fuel-powered motor
560 vehicles owned or operated by such agency and authority; specific information concerning the
561 availability of ultra low sulfur diesel fuel.

562 SECTION 9.

563 Section 61 of Chapter 30, as so appearing, is hereby amended by inserting after the first
564 paragraph the following paragraph:--

565 “In connection with the consideration and issuance of permits, licenses and other
566 administrative approvals and decisions, reasonably foreseeable climate change impacts,
567 such as additional greenhouse gas emissions, and effects, such as predicted sea level
568 rise, shall be taken into consideration.”

569 SECTION 10. Low carbon fuel standard

570 Section 142K of Chapter 111 of the General Laws, as so appearing, is hereby amended by
571 striking clause (h) in its entirety and inserting in place thereof the following two clauses:--

572 (h) The department of environmental protection shall adopt a Low Carbon Fuel
573 Standard (“LCFS”) for transportation fuels by June 30, 2009. The LCFS shall apply to
574 all refiners, blenders, producers or importers, collectively known as providers, of
575 transportation fuels in Massachusetts. The LCFS shall be measured on a full fuels cycle
576 basis; and may be met through market-based methods by which providers exceeding the
577 performance required by a LCFS shall receive credits that may be applied to future

578 obligations, or traded to providers not meeting the LCFS. The process for establishing
579 the LCFS shall be as follows:

580 (1) Not later than January 1, 2009, the department of environmental protection,
581 in consultation with the department and the executive office of transportation,
582 shall adopt regulations establishing a low carbon fuel standard for all motor
583 vehicle fuels sold in the commonwealth. Such regulations shall establish a
584 declining standard for greenhouse gas emissions measured in CO₂-equivalent
585 gram per unit of fuel energy sold, sufficient to achieve a ten percent reduction in
586 the carbon content of all passenger vehicle fuels sold in the commonwealth by
587 2020.

588 (2) Said agencies shall examine the regulations and implementation of a low
589 carbon fuel standard in California and other states and consider ways to
590 coordinate and issue public findings on both such matters, and shall, if
591 applicable, use the life-cycle analysis methods employed by the California Air
592 Resources Board to determine the carbon intensity of fuel.

593 (3) Said agencies shall examine the possibility of a regional approach to
594 implementing the low carbon fuel standard and issue public findings on such
595 matter.

596 (j) The responsibilities hereunder shall be in addition to all other responsibilities
597 imposed by any other general or special law or rule or regulation.”

598 SECTION 11. Expanded Passenger and Freight Rail Service

599 The Governor, in cooperation with the New England Governors Association, shall
600 investigate the opportunities for expansion of high speed and light rail passenger rail

601 service and expanded rail freight movement within the Northeast region. Such
602 investigation shall include consideration of new rail corridors, opportunities to reduce
603 vehicle miles traveled, and an analysis of the economic, environmental and greenhouse
604 gas benefits of such expanded passenger and freight rail service.

605 SECTION 12.

606 Nothing in this act shall restrict the executive office from adopting greenhouse gas emission
607 limits or emission reduction measures prior to January 1, 2011, imposing those limits or
608 measures prior to January 1, 2012, or providing early reduction credit where appropriate, nor
609 shall this act be seen as preventing any more stringent limits on emissions.

610 SECTION 13. Study Commission

611 There shall be a special commission to study the impacts and costs of potential measures and
612 policy proposals to reduce greenhouse gas emissions in the Commonwealth.

613 The commission shall consist of three members of the house of representatives, two of the
614 members to be appointed by the speaker of the house, and one member to be appointed by the
615 minority leader of the house, and three members of the senate, two of the members to be
616 appointed by the senate president, and one member to be appointed by the minority leader of the
617 senate, as well as four members to be appointed by the governor. The governor's appointees
618 shall include a representative from an environmental advocacy organization, a representative
619 from the renewable energy industry, a representative from the Massachusetts Municipal
620 Association, and a representative from the National Association of Industrial and Office
621 Properties.

622 The commission shall consider the following:--

- 623 (1) Incentives for the development of residential wind turbines, including neighborhood
624 turbines;
- 625 (2) Development of a model municipal zoning ordinance for siting of residential wind turbines;
- 626 (3) Incentives to encourage construction of green buildings;
- 627 (4) Statewide adoption of appliance efficiency standards; and
- 628 (5) Incentives to encourage growth of the renewable energy sector.

629 SECTION 14. Severability

630 The provisions of this act are severable. If any provision of this act or its application is held
631 invalid, that invalidity shall not affect other provisions or applications that can be given effect
632 without the invalid provision or application.