

SENATE No. 2092

The Commonwealth of Massachusetts

—————
In the One Hundred and Eighty-Ninth General Court
(2015-2016)
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SENATE, Thursday, January 14, 2016

The committee on Ways and Means, to whom was referred the Senate Bill relative to 2030 and 2040 emissions benchmarks (Senate, No. 458),-- reports, recommending that the same ought to pass with an amendment substituting a new draft with the same title (Senate, No. 2092).

For the committee,
Karen E. Spilka

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**In the One Hundred and Eighty-Ninth General Court
(2015-2016)**

An Act relative to 2030 and 2040 emissions benchmarks.

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. Subsection (b) of section 3 of chapter 21N of the General Laws, as
2 appearing in the 2014 Official Edition, is hereby amended by striking out clauses (2) and (3) and
3 inserting in place thereof the following 2 clauses:- (2) a 2030 statewide greenhouse gas
4 emissions limit accompanied by plans to achieve this limit in accordance with said section 4;
5 provided, however, that the 2030 statewide greenhouse gas emissions limits shall maximize the
6 ability of the commonwealth to meet the 2050 statewide greenhouse gas emissions limit; (3) a
7 2040 statewide greenhouse gas emissions limit accompanied by plans to achieve this limit in
8 accordance with said section 4; provided, however, that the 2040 statewide greenhouse gas
9 emissions limit shall maximize the ability of the commonwealth to meet the 2050 statewide
10 greenhouse gas emissions limit.

11 SECTION 2. Subsection (a) of section 4 of said chapter 21N, as so appearing, is hereby
12 amended by inserting after the first sentence the following 2 sentences:- The secretary shall
13 further adopt the 2030 statewide greenhouse gas emissions limit pursuant to subsection (b) of
14 section 3 which shall be between 35 per cent and 45 per cent below the 1990 emissions level and

15 a plan for achieving that reduction. The secretary shall further adopt the 2040 statewide
16 greenhouse gas emissions limit pursuant to said subsection (b) of said section 3 which shall be
17 between 55 per cent and 65 per cent below the 1990 emissions level and a plan for achieving that
18 reduction.

19 SECTION 3. Said subsection (a) of said section 4 of said chapter 21N, as so appearing, is
20 hereby further amended by striking out the last sentence and inserting in place thereof the
21 following sentence:- The 2020, 2030 and 2040 statewide greenhouse gas emissions limits and
22 implementation plans shall comply with this section.

23 SECTION 4. Said section 4 of said chapter 21N, as so appearing, is hereby further
24 amended by striking out, in line 16, the word "limit" and inserting in place thereof the following
25 word:- limits.

26 SECTION 5. Said section 4 of said chapter 21N, as so appearing, is hereby further
27 amended by striking out, in line 42, the words "2020 emission limit and implementing plan" and
28 inserting in place thereof the following words:- 2020, 2030 and 2040 statewide greenhouse gas
29 emissions limits and implementing plans.

30 SECTION 6. The General Laws are hereby amended by inserting after chapter 21O the
31 following chapter:-

32 CHAPTER 21P.

33 COMPREHENSIVE ADAPTATION MANAGEMENT ACTION PLANNING IN
34 RESPONSE TO CLIMATE CHANGE

35 Section 1. As used in this chapter, the following words shall have the following meanings
36 unless the context clearly requires otherwise:

37 “Adaptation”, a response and process of adjustment to actual or expected climate change
38 and its effects that seeks to increase the resiliency and reduce the vulnerability of the
39 commonwealth’s built and natural environments and seeks to moderate or avoid harm or exploit
40 beneficial opportunities to reduce the safety and health risks that vulnerable human populations
41 and resources may encounter due to climate change.

42 “Executive office”, the executive office of energy and environmental affairs.

43 “Hazard mitigation”, an effort using nonstructural measures to reduce loss of life and
44 property by lessening the impacts of major storms.

45 “Plan”, the comprehensive adaptation management action plan.

46 “Public utility”, as defined in clause (7) of paragraph (j) of section 5 of chapter 21E.

47 “Resilience”, the ability to respond and adapt to changing conditions and withstand and
48 rapidly recover with minimal damage from disruption due to climate-related events and impacts.

49 “State agency”, a legal entity of state government established by the legislature as an
50 agency, board, bureau, department, office or division of the commonwealth with a specific
51 mission that may either report to an executive office or secretariat or be independent division or
52 department.

53 “State authority”, a body politic and corporate constituted as a public instrumentality of
54 the commonwealth and established by an act of the legislature to serve an essential governmental
55 function; provided, however, that “state authority” shall include energy generation and

56 transmission, solid waste, drinking water, wastewater and stormwater and telecommunication
57 utilities serving areas identified by the executive office as subject to material risk of flooding;
58 provided further, that unless designated as such by the secretary of energy and environmental
59 affairs, “state authority” shall not include: (i) a state agency; (ii) a city or town; (iii) a body
60 controlled by a city or town; or (iv) a separate body politic for which the governing body is
61 elected, in whole or in part, by the general public or by representatives of member cities or
62 towns.

63 Section 2. (a) The secretary of energy and environmental affairs and the secretary of
64 public safety and security, in consultation with appropriate secretariats as determined by the
65 governor, shall develop, draft, adopt and revise at least once every 10 years, a comprehensive
66 adaptation management action plan. The plan shall encourage and provide guidance to state
67 agencies, state authorities, and regional planning agencies to proactively address the
68 consequences of climate change and provide a process for local and regional climate
69 vulnerability assessment and adaptation strategy development and implementation. The plan and
70 any updates shall be filed with clerks of the house of representatives and senate. The plan shall
71 be developed with guidance from the comprehensive adaptation management action plan
72 advisory commission established in section 3.

73 Upon the adoption of the plan, all certificates, licenses, permits, authorizations, grants,
74 financial obligations, projects, actions and approvals for any proposed projects, uses or activities
75 in and by a state agency or state authority shall be consistent, to the maximum extent practicable,
76 with the plan.

77 (b) The plan shall include, but not be limited to: (i) a statement setting forth the
78 commonwealth's goals, priorities and principles for ensuring effective prioritization for the
79 resiliency, preservation, protection, restoration and enhancement of the commonwealth's built
80 and natural infrastructure; (ii) a commitment to sound management practices which shall take
81 into account the existing natural, built and economic characteristics of the commonwealth's most
82 vulnerable areas and human populations; (iii) data on existing and projected climate trends,
83 according to the best and latest data, forecasting and models including, but not limited to,
84 changes for temperature, precipitation, drought, sea level, and inland and coastal flooding; (iv) a
85 statement on the preparedness and vulnerabilities in the commonwealth's emergency response
86 and infrastructure resiliency including, but not limited to, energy, transportation,
87 communications, health and other systems; (v) an assessment of economic vulnerability,
88 including but not limited to, local businesses in high-risk communities; and (vi) an assessment of
89 natural resources and ecosystems, identifying vulnerabilities and strategies to preserve, protect,
90 restore and enhance.

91 Section 3. (a) There shall be a comprehensive adaptation management action plan
92 advisory commission to assist the secretary of energy and environmental affairs and the secretary
93 of public safety and security in developing the comprehensive adaptation management plan. The
94 commission shall consist of: the secretary of the energy and environmental affairs or a designee;
95 the secretary of public safety and security or a designee; 1 person from the University of
96 Massachusetts with expertise in climate science chosen by the University; and 17 persons to be
97 appointed by the secretary of energy and environmental affairs and the secretary of public safety
98 and security, 1 of whom shall have expertise in transportation and built infrastructure, 1 of whom
99 shall have expertise in commercial, industrial and manufacturing activities, 1 of whom shall have

100 expertise in commercial and residential property management and real estate, 1 of whom shall
101 have expertise in energy generation and distribution, 1 of whom shall have expertise in wildlife
102 and land conservation, 1 of whom shall have expertise in water supply and conservation, 1 of
103 whom shall have expertise in the outdoor recreation economy, 1 of whom shall have expertise in
104 economic and environmental justice, 1 of whom shall have expertise in ecosystem dynamics, 1
105 of whom shall have expertise in coastal zones and oceans, 1 of whom shall have expertise in
106 rivers and wetlands, 1 of whom shall be a professional engineer, 1 of whom shall be from a
107 statewide nonprofit land and water conservation organization; 1 of whom shall have expertise in
108 historic and cultural resources, 1 of whom shall have expertise in small business administration,
109 1 of whom shall be a certified floodplain manager and 1 of whom shall have expertise in local
110 government. The secretary of energy and environmental affairs and the secretary of public safety
111 and security shall jointly designate an appointee to serve as chair.

112 (b) The advisory commission shall prepare a report:

113 (1) identifying: (i) how the secretary of energy and environmental affairs can
114 support existing adaptation, resilience and hazard mitigation efforts of state agencies, such as the
115 StormSmart Coasts program at the office of coastal zone management, BioMap2 at the
116 department of fish and game and vulnerability studies being conducted by the department of
117 public health and the Massachusetts Department of Transportation; (ii) recommendations of new
118 actions that may be implemented immediately using existing state agency legal authority, state
119 resources and funding based upon the recommendations included in the climate change
120 adaptation report prepared pursuant to section 9 of chapter 298 of the acts of 2008 and existing
121 climate change action plans prepared by regional planning agencies and municipalities; (iii)
122 unilateral actions that can be taken by the executive branch to increase climate adaptation,

123 resilience and hazard mitigation including, but not limited to, executive orders and policy
124 directives issued by the governor or policies, regulations and guidance by the secretary of energy
125 and environmental affairs; (iv) recommendations of new climate resilience and adaptation
126 actions that require legislative authority, state resources or funding, including identification of
127 funds to leverage opportunities through public-private partnerships; and (v) the cost of climate
128 adaptation within the 10-year term of the plan, based upon the adaptation actions recommended
129 in this report, existing climate action plans, including those prepared by regional planning
130 councils, municipalities and state agency cost assessments outlined in section 4; and

131 (2) providing information relative to the risks associated with climate change,
132 both means and extremes, including, but not limited to, the risks associated with changes in
133 temperature, drought, increased precipitation and coastal and inland flooding identified by the
134 advisory committee on flood risks created by climate change established in section 39 of chapter
135 52 of the acts of 2014.

136 Section 4. Each state agency, state authority and public utility, as designated by the
137 secretary of environmental affairs and the secretary of public safety and security, shall, in
138 consultation with the executive office, develop and update at least once every 10 years a
139 vulnerability and adaptation assessment for their portfolio of assets based on the relevant
140 scientific data and information collected by the comprehensive adaptation management action
141 plan advisory commission pursuant to section 3. The vulnerability assessments shall classify the
142 economic losses over time associated with each major asset for the relevant climate risks
143 including, but not limited to, coastal and inland flooding and extreme heat, as unacceptable,
144 noncritical or immaterial. For assets exposed to material risk of unacceptable losses, the
145 vulnerability assessment shall include order-of-magnitude cost-estimates for: (i) measures to

146 protect the assets; (ii) measures to make the assets resilient; and (iii) removal and relocation of
147 the assets from exposed areas. Estimates shall also be prepared for the economic, social and
148 environmental damages if no adaptation actions are taken. Qualitative cost-benefit discussions of
149 projected social impacts of flood prevention versus flood resilience shall also be included in the
150 vulnerability assessment.

151 Section 5. The secretary of energy and environmental affairs and the secretary of public
152 safety and security shall, at least 6 months before establishing a comprehensive plan pursuant to
153 this chapter, provide for public access to the draft plan in electronic and printed copy form and
154 shall provide for a public comment period, which shall include at least 5 public hearings across
155 the commonwealth. The secretary of energy and environmental affairs and the secretary of public
156 safety and security shall publish notice of any public hearing in the Environmental Monitor at
157 least 30 days but not more than 35 days before the date of a hearing. A notice of a public hearing
158 shall also be placed, at least once each week for the 4 consecutive weeks preceding the hearing in
159 newspapers with sufficient circulation to notify the residents of the municipality in which the
160 hearings shall be held. The public comment period shall remain open for at least 60 days from
161 the date of the final public hearing. After the close of the public comment period, the secretary of
162 energy and environmental affairs and the secretary of public safety and security shall issue a
163 final plan and shall file the plan, together with legislation necessary to implement the plan, if
164 any, by filing the same with the clerks of the house of representatives and senate.

165 Section 6. The plan shall be consistent with this chapter and all other general and special
166 laws. Nothing in the plan shall be construed to supersede existing general or special laws or to
167 confer any rights, or adversely impact existing rights, or remedies in addition to those conferred
168 by general or special laws existing on the effective date of this chapter.

169 SECTION 7. Section 16 of chapter 298 of the acts of 2008 is hereby amended by striking
170 out, in lines 3 and 4, the words “, and shall expire on December 31, 2020”.

171 SECTION 8. The secretary of energy and environmental affairs shall develop and
172 support a regional comprehensive climate change adaptation management action plan grant
173 program which shall consist of financial assistance to regional planning agencies to develop and
174 implement comprehensive cost-effective adaptation management action plans at the regional
175 level of government. Funds shall be expended from item 2000-7070 of section 2A of chapter
176 286 of the acts of 2014 for the grant program and the department of energy resources may make
177 available monies from amounts collected by the Department of Energy Resources Credit Trust
178 Fund established in section 13 of chapter 25A of the General Laws for the grant program.
179 Regional comprehensive adaptation management action plans shall include, but not be limited to:
180 (i) technical planning guidance for adaptive municipalities through a step-by-step process for
181 regional climate vulnerability assessment and adaptation strategy development; (ii) development
182 of a definition of regional impacts by supporting municipalities conducting climate vulnerability
183 assessments; (iii) a demonstrated understanding of regional characteristics, including regional
184 environmental and socioeconomic characteristics; and (iv) prioritization of protecting identified
185 inland and coastal vulnerable locations not yet built upon. The grants shall advance statewide,
186 regional and local efforts to adapt land use, zoning, infrastructure, policies and programs to
187 reduce the vulnerability of the built and natural environment to changing environmental
188 conditions as a result of climate change and for the development and implementation of an
189 outreach and education program in low income and urban areas about climate change and the
190 effects of climate change.

191 SECTION 9. The executive office of energy and environmental affairs, in consultation
192 with the division of capital asset management and maintenance, may acquire by purchase from
193 willing sellers land abutting or adjacent to areas subject to the ebb and flow of the tide or on
194 barrier beaches or in velocity zones of flood plain areas, on which structures have been
195 substantially and repeatedly damaged by severe weather, for conservation and recreation
196 purposes, including those rejected by the Pre-Disaster Mitigation Grant Program and the Hazard
197 Mitigation Grant Program administered by the Federal Emergency Management Agency.

198 Prior to the acquisition of any land under this section, the executive office shall develop a
199 conservation and recreation management plan for any such land after consultation with the
200 municipality in which the land is located. The plan shall set forth the priority, description and
201 location of lands to be acquired and any land management agreement reached between the
202 agency and municipality that provides for local responsibility to carry out the development and
203 management of the property. Land acquired pursuant to this section shall contain a deed
204 restriction stating that the land shall be used for conservation and recreation purposes only.

205 No land shall be acquired under this section until after a public hearing has been held by
206 the executive office in the municipality in which the land is located to consider the management
207 plan. The executive office shall notify the mayor and city council in a city or the board of
208 selectmen, planning board and conservation commission, if any, of a town not later than 10 days
209 prior to any such hearing.

210 If the executive office deems it necessary to make appraisals, surveys, soundings,
211 borings, test pits or other related examinations to obtain information to carry out this section, the
212 executive office or its authorized agents or employees may, after due notice by registered mail,

213 enter upon lands, water and premises, not including buildings, to make such appraisals, surveys,
214 soundings, borings, test pits or other related examinations and such entry shall not be a trespass.
215 The executive office shall provide reimbursement for any injury or actual damages resulting to
216 the lands, waters and premises caused by any act of the executive office or its authorized agents
217 or employees and shall, so far as possible, restore the lands to the same condition as prior to
218 making such appraisals, surveys, soundings, borings, test pits or other related examinations.

219 SECTION 10. (a) The executive office of energy and environmental affairs, acting for
220 and on behalf of the commonwealth, may lease to a municipality or nonprofit organization, on a
221 form approved by the attorney general, for not more than 25 years, certain property acquired by
222 the commonwealth pursuant to section 9 or by the Federal Emergency Management Agency
223 under 42 U.S.C. § 4001, as amended, for use as conservation and recreation areas. Leases shall
224 be in such form and contain such provisions as the secretary of energy and environmental affairs,
225 in consultation with the division of capital asset management and maintenance, shall determine,
226 including such terms and conditions as necessary to comply with laws relative to the protection
227 of barrier beaches. Lands shall be leased upon the express conditions that the land shall be used
228 for conservation and recreation purposes only, that no permanent structures shall be erected and
229 a reversionary clause that requires the lease to be terminated if the leased land is used in
230 violation of any law relative to barrier beaches or condition of the lease.

231 (b) In consideration for the granting of a lease authorized in subsection (a), the lessee
232 municipality or nonprofit organization shall agree to maintain the acquired land as a clean, safe
233 and orderly conservation or recreation area.

234 SECTION 11. Pursuant to its authority under section 40 of chapter 131 of the General
235 Laws, the commissioner of environmental protection shall promulgate rules regulating the
236 dredging, filling or altering of land subject to coastal storm flowage.

237 SECTION 12. The executive office of energy and environmental affairs and the
238 executive office of public safety and security may expend such sums as may be available from
239 any account, appropriation or fund available to the respective executive offices or to any agency
240 within those executive offices to carry out chapter 21P of the General Laws, including expenses
241 in connection with the department's responsibilities under said chapter 21P and the cost of
242 planning and for the development, redevelopment or improvement of land under said chapter
243 21P.

244 SECTION 13. The regulations required pursuant to section 11 shall be promulgated not
245 later than 180 days after the effective date of this act.

246 SECTION 14. The comprehensive adaptation management action plan advisory
247 commission shall complete the first report required by subsection (b) of section 3 of chapter 21P
248 of the General Laws not later than January 1, 2017 and shall complete a revised report at least
249 once every 10 years thereafter.

250 SECTION 15. The first comprehensive adaptation management action plan required by
251 section 2 of chapter 21P of the General Laws shall be completed not later than January 1, 2018.

252 SECTION 16. The 2030 statewide greenhouse gas emissions limit required by subsection
253 (a) of section 4 of chapter 21N of the General Laws shall be adopted not later than January 1,
254 2021.

255 SECTION 17. The 2040 statewide greenhouse gas emissions limit required pursuant to
256 subsection (a) of section 4 of chapter 21N of the General Laws shall be adopted not later than
257 January 1, 2031.