SENATE . . . . . No. 2402

Senate, Thursday, June 30, 2016 -- Text of amendment (8) (offered by Senator Pacheco) to the Ways and Means amendment (Senate, No. 2372) to the House Bill to promote energy diversity.

The Commonwealth of Massachusetts

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

Messrs. Pacheco and Brady, Ms. L'Italien, Mr. Lewis, Ms. Gobi, Mr. Eldridge and Ms. Jehlen move to amend the bill by inserting the following new sections:-

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

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

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

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

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

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

32 SECTION __ The General Laws are hereby amended by inserting after chapter 21O the
33 following chapter:-

34 CHAPTER 21P.

35 COMPREHENSIVE ADAPTATION MANAGEMENT ACTION PLANNING IN
36 RESPONSE TO CLIMATE CHANGE

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

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

44 "Executive office", the executive office of energy and environmental affairs.

45 "Hazard mitigation", an effort using nonstructural measures to reduce loss of life and
46 property by lessening the impacts of major storms.

47 "Plan", the comprehensive adaptation management action plan.

48 "Public utility", as defined in clause (7) of paragraph (j) of section 5 of chapter 21E.

49 "Resilience", the ability to respond and adapt to changing conditions and withstand and
50 rapidly recover with minimal damage from disruption due to climate-related events and impacts
51 which may include, but shall not be limited to, shoreline improvement, seawall maintenance and
52 expansion, infrastructure improvement or innovative building design and construction.

53 "State agency", a legal entity of state government established by the legislature as an
54 agency, board, bureau, department, office or division of the commonwealth with a specific
55 mission that may either report to an executive office or secretariat or be independent division or
56 department.

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

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

78 Upon the adoption of the plan, all certificates, licenses, permits, authorizations, grants,
79 financial obligations, projects, actions and approvals for any proposed projects, uses or activities

80 in and by a state agency or state authority shall be consistent, to the maximum extent practicable,
81 with the plan.

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

96 Section 3. (a) There shall be a comprehensive adaptation management action plan
97 advisory commission to assist the secretary of energy and environmental affairs and the secretary
98 of public safety and security in developing the comprehensive adaptation management plan. The
99 commission shall consist of: the secretary of the energy and environmental affairs or a designee;
100 the secretary of public safety and security or a designee; 1 person from the University of
101 Massachusetts with expertise in climate science chosen by the university; and 18 persons to be
102 appointed by the secretary of energy and environmental affairs and the secretary of public safety

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

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

119 (1) identifying: (i) how the secretary of energy and environmental affairs can support
120 existing adaptation, resilience and hazard mitigation efforts of state agencies, such as the
121 StormSmart Coasts program at the office of coastal zone management, the coastal erosion
122 commission report, BioMap2 at the department of fish and game and vulnerability studies being
123 conducted by the department of public health and the Massachusetts Department of
124 Transportation; (ii) recommendations of new actions that may be implemented immediately
125 using existing state agency legal authority, state resources and funding based upon the

126 recommendations included in the climate change adaptation report prepared pursuant to section 9
127 of chapter 298 of the acts of 2008 and existing climate change action plans prepared by regional
128 planning agencies and municipalities; (iii) unilateral actions that can be taken by the executive
129 branch to increase climate adaptation, resilience and hazard mitigation including, but not limited
130 to, executive orders and policy directives issued by the governor or policies, regulations and
131 guidance by the secretary of energy and environmental affairs; (iv) recommendations of new
132 climate resilience and adaptation actions that require legislative authority, state resources or
133 funding, including identification of funds to leverage opportunities through public-private
134 partnerships; and (v) the cost of climate adaptation within the 10-year term of the plan, based
135 upon the adaptation actions recommended in this report, existing climate action plans, including
136 those prepared by regional planning councils, municipalities and state agency cost assessments
137 outlined in section 4; and

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

143 Section 4. Each state agency, state authority and public utility, as designated by the
144 secretary of environmental affairs and the secretary of public safety and security, shall, in
145 consultation with the executive office, develop and update at least once every 10 years a
146 vulnerability and adaptation assessment for their portfolio of assets based on the relevant
147 scientific data and information collected by the comprehensive adaptation management action
148 plan advisory commission pursuant to section 3. The vulnerability assessments shall classify the

149 economic losses over time associated with each major asset for the relevant climate risks
150 including, but not limited to, coastal and inland flooding and extreme heat, as unacceptable,
151 noncritical or immaterial. For assets exposed to material risk of unacceptable losses, the
152 vulnerability assessment shall include order-of-magnitude cost-estimates for: (i) measures to
153 protect the assets; (ii) measures to make the assets resilient; and (iii) removal and relocation of
154 the assets from exposed areas. Estimates shall also be prepared for the economic, social and
155 environmental damages if no adaptation actions are taken. Qualitative cost-benefit discussions of
156 projected social impacts of flood prevention versus flood resilience shall also be included in the
157 vulnerability assessment.

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

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

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

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

195 conditions as a result of climate change and for the development and implementation of an
196 outreach and education program in low income and urban areas about climate change and the
197 effects of climate change.

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

205 Prior to the acquisition of any land under this section, the executive office shall develop a
206 conservation and recreation management plan and coastal erosion mitigation and management
207 plan for any such land after consultation with the municipality in which the land is located. The
208 plan shall set forth the priority, description and location of lands to be acquired and any land
209 management agreement reached between the agency and municipality that provides for local
210 responsibility to carry out the development and management of the property. Land acquired
211 pursuant to this section shall contain a deed restriction stating that the land shall be used for
212 conservation and recreation purposes only.

213 No land shall be acquired under this section until after a public hearing has been held by
214 the executive office in the municipality in which the land is located to consider the management
215 plan. The executive office shall notify the mayor and city council in a city or the board of

216 selectmen, planning board and conservation commission, if any, of a town not later than 10 days
217 prior to any such hearing.

218 If the executive office deems it necessary to make appraisals, surveys, soundings,
219 borings, test pits or other related examinations to obtain information to carry out this section, the
220 executive office or its authorized agents or employees may, after due notice by registered mail,
221 enter upon lands, water and premises, not including buildings, to make such appraisals, surveys,
222 soundings, borings, test pits or other related examinations and such entry shall not be a trespass.
223 The executive office shall provide reimbursement for any injury or actual damages resulting to
224 the lands, waters and premises caused by any act of the executive office or its authorized agents
225 or employees and shall, so far as possible, restore the lands to the same condition as prior to
226 making such appraisals, surveys, soundings, borings, test pits or other related examinations.

227 SECTION __ (a) The executive office of energy and environmental affairs, acting for and
228 on behalf of the commonwealth, may lease to a municipality or nonprofit organization, on a form
229 approved by the attorney general, for not more than 25 years, certain property acquired by the
230 commonwealth pursuant to section _ or by the Federal Emergency Management Agency under
231 42 U.S.C. § 4001, as amended, for use as conservation and recreation areas. Leases shall be in
232 such form and contain such provisions as the secretary of energy and environmental affairs, in
233 consultation with the division of capital asset management and maintenance, shall determine,
234 including such terms and conditions as necessary to comply with laws relative to the protection
235 of barrier beaches. Lands shall be leased upon the express conditions that the land shall be used
236 for conservation and recreation purposes only, that no permanent structures shall be erected and
237 a reversionary clause that requires the lease to be terminated if the leased land is used in
238 violation of any law relative to barrier beaches or condition of the lease.

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

242 SECTION __ The secretary of transportation shall conduct a feasibility study on the
243 installation of charging stations for electric vehicles at rest stops along interstate highway route
244 90 and the implementation of section 75 of chapter 6C of the General Laws. The study and any
245 recommendations shall be submitted to the clerks of the senate and house of representatives and
246 the joint committee on transportation not later than December 31, 2016.

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

250 SECTION __ The executive office of energy and environmental affairs and the executive
251 office of public safety and security may expend such sums as may be available from any
252 account, appropriation or fund available to the respective executive offices or to any agency
253 within those executive offices to carry out chapter 21P of the General Laws, including expenses
254 in connection with the department's responsibilities under said chapter 21P and the cost of
255 planning and for the development, redevelopment or improvement of land under said chapter
256 21P.

257 SECTION __ The regulations required pursuant to section __ shall be promulgated not
258 later than 180 days after the effective date of this act.

259 SECTION __ The comprehensive adaptation management action plan advisory
260 commission shall complete the first report required by subsection (b) of section 3 of chapter 21P

261 of the General Laws not later than January 1, 2017 and shall complete a revised report at least
262 once every 10 years thereafter.

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

265 SECTION __ The 2030 statewide greenhouse gas emissions limit required by subsection
266 (a) of section 4 of chapter 21N of the General Laws shall be adopted not later than January 1,
267 2021.

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