

The Commonwealth of Massachusetts

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

1 by inserting the following sections:-

2 SECTION X. The General Laws are hereby amended by inserting after chapter 21O the
3 following chapter:-

4 CHAPTER 21P.

5 CLIMATE RISK AND FISCAL RESPONSIBILITY

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

8 “Adaptation”, as defined in section 1 of chapter 21N of the General Laws.

9 “Adaptation measures,” location, design, engineering, construction, landscaping or other
10 creation or modification of natural or non-structural features, ecological design, and other
11 elements of a structure, operation, system, activity, or process that (a) eliminate or reduce loss,
12 damage, or interruption of function due to climate risk, or (b) facilitate rapid restoration or
13 recovery following loss, damage, or interruption of function due to climate risk.

14 “Alternative floodplain map”, any map adopted by a city or town by ordinance or bylaw
15 that establishes, using the best available science and data, the area at flood risk based on forward-

16 looking climate projections or on past, documented flood history, to be used in place of the
17 federal emergency management agency’s flood insurance rate maps only if the map is more
18 expansive in area and more restrictive in base flood elevation than the federal flood insurance
19 rate maps.

20 “Climate resilience”, the ability to prepare and plan for, absorb, and recover from, and
21 more successfully adapt to adverse events resulting from increase climate risks.

22 “Climate risks”, the reasonably foreseeable risks to the economy, public services and
23 infrastructure, and public health and safety based on best available data and current science, that
24 are attributable to current and reasonably foreseeable climate conditions, including but not
25 limited to changes in sea level, storm frequency or intensity, drought, wind, extreme
26 precipitation, and extreme temperature changes projected to occur as a result of climate change.

27 "Electric power company", as defined in section 1 of chapter 164 of the General Laws.

28 “Environmental justice population”, a neighborhood that meets 1 or more of the
29 following criteria: (i) the annual median household income is not more than 65 percent of the
30 statewide annual median household income; (ii) minorities comprise 40 percent or more of the
31 population, (iii) 25 percent or more of households lack English language proficiency; or (iv)
32 minorities comprise 25 percent or more of the population and the annual median household
33 income of the municipality in which the neighborhood is located does not exceed 150 percent of
34 the statewide annual median household income; provided, however, that for a neighborhood that
35 does not meet said criteria, but a geographic portion of that neighborhood that meets at least 1
36 criterion, the secretary may designate that geographic portion as an environmental justice
37 population upon the petition of at least 10 residents of the geographic portion of that

38 neighborhoods meeting any such criteria; provided further, that the secretary may determine that
39 a neighborhood, including any geographic portion thereof, shall not be designated an
40 environmental justice population upon finding that: (A) the annual median household income of
41 that neighborhood is greater than 125 percent of the statewide median household income; (B) a
42 majority of persons age 25 and older in that neighborhood have a college education; (C) the
43 neighborhood does not bear an unfair burden of environmental pollution; and (D) the
44 neighborhood has more than limited access to natural resources, including open spaces and water
45 resources, playgrounds, and other constructed outdoor recreational facilities and venues.

46 “Maintenance”, as defined in section 1 of chapter 7C of the General Laws.

47 "Natural gas company", as defined in section 1 of chapter 164 of the General Laws.

48 “Nature-based solutions”, as defined in section 1 of chapter 21N of the General Laws.

49 "Regulation" includes the whole or any part of every rule, regulation, standard or other
50 requirement of general application and future effect, including the amendment or repeal thereof,
51 adopted by an agency to implement or interpret the law enforced or administered by it, but does
52 not include (a) regulations concerning only the internal management or discipline of the adopting
53 agency or any other agency, and not substantially affecting the rights of or the procedures
54 available to the public or that portion of the public affected by the agency's activities; or (b)
55 decisions issued in adjudicatory proceedings.

56 "Secretary", the officer in charge of each executive office established by chapter 6A or
57 chapter 7 and the supreme judicial court.

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

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

71 “Steam distribution company”, as defined in Section 1 of chapter 164 of the General
72 Laws.

73 “Water Companies”, every person, partnership, association or corporation, other than a
74 municipal corporation, and other than a landlord supplying his tenant, engaged in the distribution
75 and sale of water in the commonwealth through its pipes or mains.

76 Section 2. (a) The secretary of the executive office and energy and environmental affairs
77 shall require that every permit or project requiring review pursuant to sections sixty one through
78 sixty two i of chapter 30 of the General Laws(i) shall require disclosure of climate risk relevant
79 to the application and require the applicant identify the assumptions, analysis, modeling or

80 projections on which the disclosure is based; (ii) shall require, as a condition of approval, any
81 adaptation measures that the applicant or the Secretary identifies as reasonable and appropriate
82 for applicable climate risks; and (iii) may deny as incomplete any application, DEIR or EIR as to
83 which the Secretary determines that either the climate risk disclosure or adaptation measures are
84 insufficient. Every permit or project shall prioritize, to the maximum extent practicable,

85 adaptation measures that (i) promote the preservation, protection, restoration and
86 enhancement of the commonwealth's natural infrastructure through nature-based solutions, (ii)
87 account for the existing natural, built, and economic characteristics of the commonwealth's most
88 vulnerable areas and human populations. Adaptation measures that include the use of hard-
89 engineered, hardscape, or gray infrastructure features shall be supported by evidence the
90 measures will not cause or exacerbate negative environmental impacts and that alternative green
91 or green and gray hybrid solutions are not feasible.

92 (b) The secretary of the executive office of energy and environmental affairs shall adopt,
93 in consultation and concurrence with the executive office of public safety and security and other
94 affected state agencies and departments, a climate projections dataset based on the best available
95 climate science using reasonably likely scenarios, to be uniformly applied when considering
96 climate risks pursuant to section sixty-one of chapter thirty. Prior to adopting a climate
97 projections dataset, the secretary shall provide public notice and comment in accordance with
98 section three of chapter 30A. The secretary shall review and, as necessary, revise the adopted
99 dataset at least every five years to ensure that it reflects the best available climate science.

100 (c) The secretary of the executive office of energy and environmental affairs shall
101 develop, in consultation and concurrence with the executive offices of public safety and security

102 and housing and economic development, climate resilient design standards for integrating
103 climate risks and adaptation measures into public and private construction, development,
104 redevelopment, and new or expanded capital infrastructure projects based on the best available
105 climate science. Prior to adopting the climate resilient design standards, the secretary shall
106 provide public notice and comment in accordance with section three of chapter 30A.

107 Section 3. Applicants for state grants, loans, or other funding or financing including,
108 without limitation, tax credit allocations for construction, development, redevelopment, and new
109 or expanded capital infrastructure projects shall (a) demonstrate to the relevant agency or
110 authority that the planning, design, engineering and specifications for the project include
111 adaptation measures sufficient to address climate risks that will arise over the economic life of
112 the project or the term of financing, whichever is longer, in accordance with the climate resilient
113 design standards published by the secretary of the executive office of energy and environmental
114 affairs pursuant to section 3 of this chapter; (b) disclose in all design engineering, architectural,
115 or other drawings and analyses the climate assumptions used in evaluating and addressing
116 climate risks; (c) comply with and not seek variances for flood-resistant construction standards in
117 the state building code.

118 Section 4. Requests for proposals for state capital projects shall require that proposals (a)
119 demonstrate to the relevant agency or authority that the planning, design, engineering and
120 specifications for the project include adaptation measures sufficient to address climate risks that
121 will arise over the economic life or service life of the project, whichever is longer, in accordance
122 with the climate resilient design standards published by the secretary of the executive office of
123 energy and environmental affairs pursuant to section 3 of this chapter; and (b) disclose in all
124 design engineering, architectural, or other drawings and analyses the climate assumptions used in

125 evaluating and addressing climate risks. This section shall not apply to emergency procurements
126 as defined in section eight of chapter 30B.

127 Section 5. The requirements for risk disclosure and adoption of adaptation measures set
128 forth in this chapter include the requirement that such disclosures and adaptation measures
129 identify and alleviate any climate risks that disproportionately burden low and moderate income
130 and minority populations, populations with limited English proficiency or foreign origin, or
131 populations historically subject to higher rates of exposure to environmental risks than
132 the general population. Adaptation measures shall further be designed to avoid disparate impacts
133 on the basis of race, color, national origin, or income. Every permit or project requiring review
134 pursuant to sections sixty one through sixty two i of chapter 30 of the General Laws shall submit
135 a statement describing measures to eliminate disproportionate impacts on these populations.

136 Section 6. The secretary of the executive office of energy and environmental affairs may
137 promulgate such rules and regulations as are necessary to promptly and effectively enforce the
138 provisions of sections one through five, inclusive.

139 Section 7.

140 (a) The following shall be exempt from the requirements of this Chapter:

141 (i) Any project for which the secretary of the executive office of energy and
142 environmental affairs certifies in writing in consultation with the director of the Massachusetts
143 emergency management agency, after a 15 day review period, that the project poses no climate
144 risks and has no potential to result in an increase in emergency response costs;

145 (ii) Any action or project for the operation, or maintenance of existing public
146 infrastructure except actions or projects intended to address the vulnerability of existing
147 infrastructure to extreme weather and climate change impacts including but not limited to
148 flooding.

149 (iii) Any grant or financing by the commonwealth in a cumulative amount less than
150 \$250,000, inclusive of all state funding sources, which threshold is subject to revision by
151 regulation promulgated by the secretary of the executive office of energy and environmental
152 affairs;

153 (iv) Any category of actions or activities for which a state agency or state authority
154 establishes by regulation, with the concurrence of the secretary of the executive office of energy
155 and environmental affairs and the director of the Massachusetts emergency management agency,
156 pose no climate risks and have no potential to result in an increase in emergency response costs.

157 (v) Any adaptation measure which is designed solely to mitigate climate impacts and
158 enhance climate resilience that relies solely on nature-based solutions.

159 Section 8.

160 The secretary of the executive office of energy and environmental affairs shall develop,
161 in consultation with the division of professional licensure, recommendations for integrating best
162 available climate science into the state code including but not limited to commercial and
163 residential base building codes, mechanical codes, electrical codes, and plumbing codes. The
164 recommendations shall include, at a minimum, consideration of the impact of climate change on
165 structural strength and integrity, means of egress facilities, stability, light and ventilation, potable
166 water, waste, drainage, electrical wiring and electrical fixtures used for light, heat, power,

167 signaling and communications purposes in buildings and structures, and safety to life and
168 property, including but not limited to impacts from coastal and inland flooding and extreme
169 temperature changes. It shall also consider public health implications including human stress
170 thresholds associated with heat and cold. The recommendations shall also include specific
171 standards for adoption as an appendix to the state building code a municipal opt-in climate
172 resilience stretch code that incorporates forward-looking climate risks, including but not limited
173 to the impacts of extreme heat and cold, flooding, and wind, and standards for addressing these
174 impacts in residential and commercial construction. The recommendations shall be published for
175 public comment no later than 250 days of enactment. The executive office of energy and
176 environmental affairs, in consultation with the division of professional licensure, shall
177 periodically update these recommendations based on the best available climate science at least
178 once every five years.

179 SECTION X. The Section 95 of chapter 143 of the General Laws, as appearing in the
180 2014 Official Edition, is hereby amended by striking all text and inserting in place the following:

181 Section 95. The powers and duties of the board set forth in section ninety-four shall be
182 exercised to effect the following objectives:

183 (a) Uniform standards and requirements for construction and construction materials,
184 compatible with accepted standards of engineering and fire prevention practices, energy
185 conservation, climate resilience, and public health and safety. In the formulation of such
186 standards and requirements, performance for the use intended shall be the test of acceptability, in
187 accordance with accredited testing standards.

188 (b) Adoption of modern technical methods, devices and improvements which may, over
189 the long term, reduce the cost of construction, and maintenance over the life of the building, and
190 mitigate the impacts of and damage from climate change without affecting the health, safety, and
191 security of the occupants or users of buildings.

192 (c) Elimination of restrictive, obsolete, conflicting and unnecessary building regulations
193 and

194 requirements which may increase the cost of construction and maintenance over the life
195 of the building or retard unnecessarily the use of new materials, or which may provide
196 unwarranted preferential treatment of types of classes of materials, products or methods of
197 construction without affecting the health, safety, and security of the occupants or users of
198 buildings; provided, however, that such building regulations and requirements are not necessary
199 to mitigate the impacts of and damage from climate change.

200 SECTION X. The Section 94 of chapter 143 of the General Laws, as appearing in the
201 2014 Official Edition, is hereby amended by inserting the following after subsection (r):

202 (s) In consultation with the executive office of energy and environmental affairs, the
203 division of professional licensure, professional organizations, non-governmental organizations,
204 and other stakeholders, develop and adopt, as an appendix to the state building code, a municipal
205 opt-in climate resilience stretch code that incorporates forward-looking climate risks, including
206 but not limited to the impacts of extreme heat and cold, flooding, and wind, and standards for
207 addressing these impacts in residential and commercial construction.

208 SECTION X. The Section 98 of chapter 143 of the General Laws, as appearing in the

209 2014 Official Edition, is hereby amended by inserting the following after the first
210 paragraph:

211 The board of selectmen in a town or the city council in a city may request the use of
212 alternative floodplain maps, based on best available climate science, including forward-looking
213 projections, and or floodplain maps based on past, documented flood history, in lieu of federal
214 emergency management agency flood insurance rate maps for the purposes of determining base
215 flood elevation and mandating the applicability of flood-resistant construction standards as
216 contained in the residential and commercial base building codes where flood hazard areas are
217 referenced. The board of selectman in a town or the city council in a city shall certify that the
218 city or town has formally adopted alternative floodplain maps for official use in the city or town
219 by ordinance or bylaw and that the alternative floodplain maps are more expansive in area and
220 more stringent in base flood elevation than the existing federal emergency management agency
221 flood insurance rate maps. A city or town shall not use alternative floodplain maps that are less
222 restrictive than existing federal flood insurance rate maps. If the board finds that the use of
223 alternative floodplain maps is in the interest of public health and safety and with the general
224 purposes of a statewide building code, the board shall, after notice to said board of selectmen or
225 city council, and after a public hearing, adopt rules and regulations, impose conditions in
226 connection with the adoption thereof. If the board rejects the request, the board of selectmen or
227 city council may file an appeal within 30 days to undersecretary of the office of consumer affairs
228 and business regulation. If the undersecretary upholds the decision of the board, the board of
229 selectmen or city council may file a request for reconsideration within 30 days to the secretary of
230 the executive office of housing and economic development. The secretary of the executive office
231 of housing and economic development, in consultation with the secretary of the executive office

232 of energy and environmental affairs, shall respond to the request for reconsideration within 15
233 days.

234 SECTION X. The General Laws are hereby amended by inserting after section (23) of
235 chapter 25 of the General Laws, as appearing in the 2014 Official Edition, the following
236 section:

237 Section 24

238 Climate Vulnerability and Adaptation Plan

239 (a) The Department of Public Utilities shall develop, in consultation with the secretary of
240 the executive office of energy and environmental affairs, climate adaptation standards for
241 all investor-owned electric, natural gas, steam distribution, and water companies based on best
242 available climate science. Prior to adopting climate adaptation standards, the Department of
243 Public Utilities shall provide public notice and comment in accordance with section three of
244 chapter 30A. The Department shall publish final climate adaptation standards no later than 250
245 days after enactment.

246 (b) The Department of Public Utilities shall require investor-owned electric, natural gas,
247 steam distribution, and water companies to prepare and file a climate vulnerability and
248 adaptation plan at least once every five years based on best available climate science and in
249 accordance with the Department's climate adaptation standards. Climate vulnerability and
250 adaptation plans shall prioritize, to the maximum extent practicable, adaptation measures
251 that (i) promote the preservation, protection, restoration and enhancement of the

252 commonwealth’s natural infrastructure through nature-based solutions, (ii) account for the
253 existing natural, built, and economic characteristics of the commonwealth’s most vulnerable
254 areas and human populations. Adaptation measures that include the use of hard-engineered,
255 hardscape, or gray infrastructure features shall be supported by evidence the measures will not
256 cause of exacerbate negative environmental impacts and that alternative green or green and gray
257 hybrid solutions are not feasible. Climate vulnerability and adaptation plans shall be prepared in
258 collaboration with communities most impacted by the effects of climate change, including
259 environmental justice communities, and shall include a community engagement plan that
260 describes outreach efforts that will be undertaken, including but not limited to public meetings,
261 notices thereof, language access accommodations for low-English proficiency populations,
262 narrative and numerical outreach foals and targets, past engagement goal shortfalls or
263 deficiencies.

264 (c) The Department of Public Utilities shall require, in any ratemaking proceeding
265 pursuant to sections seventy-six, ninety-three, and ninety-four of chapter one hundred and sixty-
266 four and sections two and four of chapter one hundred and sixty-five, that investor-owned
267 electric power, natural gas, steam distribution, and water companies identify in priority order the
268 climate risks to its facilities, that will arise over the projected economic life of such facilities or
269 fifty years, whichever is greater, in accordance with climate adaptation plans as required by
270 subsection (b). The companies shall present evidence documenting their evaluation of climate
271 risks and measures addressing such climate risks based on the best available data and other
272 evidence in the record before the agency and shall identify how their operating and capital
273 budgets address such climate risks. The companies shall also (a) consider and present evidence
274 addressing likely climate change risk scenarios in relation to the risk tolerance of the

275 infrastructure and (b) disclose in all design engineering, architectural, or other drawings
276 and analyses the climate assumptions used in evaluating and addressing climate risks.

277 (d) In adjudicating ratemaking proceedings pursuant to sections seventy-six, ninety-three,
278 and ninety-four of chapter one hundred and sixty-four and sections two and four of chapter one
279 hundred and sixty-five, the Department of Public Utilities shall determine whether the
280 applicant's costs proposed or incurred for capital investment projects included consideration and
281 minimization of climate risks for the economic life of the proposed investment or fifty years,
282 whichever is greater. In considering climate risks, the Department of Public Utilities shall
283 consult the most recent climate vulnerability and adaptation plan on file for the applicant and
284 analyze likely climate change risk scenarios, based on best available data, and shall conclude in
285 writing that those scenarios are appropriate based on the risk tolerance of the project or facility.

286 (d) The Department of Public Utilities shall promulgate such rules and regulations as are
287 necessary to promptly and effectively enforce the provisions of section twenty-four.

288 SECTION X. Section 69J1/4 of chapter 164 of the General Laws, as appearing in the
289 2014 Official Edition, is hereby amended by inserting the following:

290 All petitions shall a) demonstrate to the board that the planning, design, engineering and
291 specifications for the project include adaptation measures sufficient to address climate risks that
292 will arise over the economic life of the project or the term of financing, whichever is longer,
293 based on the best available climate science; and (b) disclose in all design engineering,
294 architectural, or other drawings and analyses the climate assumptions used in evaluating and
295 addressing climate risks.

296 SECTION X. Section 2 of chapter 21A of the General Laws, as appearing in the

297 2014 Official Edition, is hereby amended by inserting after clause (30) the following
298 subsections:

299 (31) Establish, conduct, and maintain an annual program of education and training for
300 members of local planning boards, zoning boards, and commissions on climate science and the
301 physical effects of climate change including but not limited to sea level rise, storm surge,
302 drought, wind, extreme precipitation, and extreme high and low temperature changes including
303 heat waves and based on the best available data. Each city or town receiving financial assistance
304 pursuant to section 11 of chapter 21N of the General Laws shall require members of any
305 planning board, zoning board of appeals or zoning commission, health board, conservation
306 commission, or other local board or commission comprised of volunteer members within the city
307 or town to participate in training and education classes on climate science and the physical
308 effects of climate change. Each member shall complete a minimum of five (5) hours of training
309 in order to be certified by this subsection. Upon completion of the training, the board or
310 commission member shall file with the municipal clerk a statement asserting that the training
311 course has been completed.

312 (32) The secretary may, in establishing, conducting and maintaining this program of
313 education and training, confer with and, if necessary, consolidate efforts with other mandatory
314 board training programs as appropriate. Any consolidated training program must retain the
315 requirement that members complete a minimum of five (5) hours of training on climate science
316 and the physical effects of climate change. Non-governmental organizations may assist with the
317 development, maintenance, and implementation of this program of education and training with
318 the approval of the secretary.