

SENATE No. 1880

The Commonwealth of Massachusetts

PRESENTED BY:

Marc R. Pacheco

To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:

The undersigned legislators and/or citizens respectfully petition for the adoption of the accompanying bill:

An Act creating 21st Century Massachusetts Clean Energy Jobs.

PETITION OF:

Table with 3 columns: NAME, DISTRICT/ADDRESS, and Date. Lists names of legislators and citizens such as Marc R. Pacheco, Jason M. Lewis, Jack Lewis, etc., along with their districts and petition dates.

	<i>Hampden</i>	
<i>Michael F. Rush</i>	<i>Norfolk and Suffolk</i>	<i>1/31/2017</i>
<i>Paul R. Heroux</i>	<i>2nd Bristol</i>	<i>1/31/2017</i>
<i>James M. Cantwell</i>	<i>4th Plymouth</i>	<i>1/31/2017</i>
<i>Kay Khan</i>	<i>11th Middlesex</i>	<i>1/31/2017</i>
<i>Ruth B. Balsler</i>	<i>12th Middlesex</i>	<i>1/31/2017</i>
<i>Denise Provost</i>	<i>27th Middlesex</i>	<i>2/1/2017</i>
<i>Robert M. Koczera</i>	<i>11th Bristol</i>	<i>2/1/2017</i>
<i>Lori A. Ehrlich</i>	<i>8th Essex</i>	<i>2/1/2017</i>
<i>Solomon Goldstein-Rose</i>	<i>3rd Hampshire</i>	<i>2/1/2017</i>
<i>Michelle M. DuBois</i>	<i>10th Plymouth</i>	<i>2/1/2017</i>
<i>James B. Eldridge</i>	<i>Middlesex and Worcester</i>	<i>2/1/2017</i>
<i>Barbara A. L'Italien</i>	<i>Second Essex and Middlesex</i>	<i>2/2/2017</i>
<i>Sean Garballey</i>	<i>23rd Middlesex</i>	<i>2/2/2017</i>
<i>Walter F. Timilty</i>	<i>Norfolk, Bristol and Plymouth</i>	<i>2/2/2017</i>
<i>Aaron Vega</i>	<i>5th Hampden</i>	<i>2/2/2017</i>
<i>Edward F. Coppinger</i>	<i>10th Suffolk</i>	<i>2/2/2017</i>
<i>Patricia A. Haddad</i>	<i>5th Bristol</i>	<i>2/2/2017</i>
<i>Carlos González</i>	<i>10th Hampden</i>	<i>2/2/2017</i>
<i>Brian Murray</i>	<i>10th Worcester</i>	<i>2/2/2017</i>
<i>Anne M. Gobi</i>	<i>Worcester, Hampden, Hampshire and Middlesex</i>	<i>2/2/2017</i>
<i>Daniel J. Ryan</i>	<i>2nd Suffolk</i>	<i>2/2/2017</i>
<i>Jonathan Hecht</i>	<i>29th Middlesex</i>	<i>2/2/2017</i>
<i>Adrian Madaro</i>	<i>1st Suffolk</i>	<i>2/3/2017</i>
<i>Peter V. Kocot</i>	<i>1st Hampshire</i>	<i>2/3/2017</i>
<i>Elizabeth A. Malia</i>	<i>11th Suffolk</i>	<i>2/3/2017</i>
<i>Eric P. Lesser</i>	<i>First Hampden and Hampshire</i>	<i>2/3/2017</i>
<i>Patricia D. Jehlen</i>	<i>Second Middlesex</i>	<i>2/3/2017</i>
<i>William N. Brownsberger</i>	<i>Second Suffolk and Middlesex</i>	<i>2/22/2017</i>
<i>Harriette L. Chandler</i>	<i>First Worcester</i>	<i>2/22/2017</i>
<i>Mark C. Montigny</i>	<i>Second Bristol and Plymouth</i>	<i>2/22/2017</i>
<i>Cynthia Stone Creem</i>	<i>First Middlesex and Norfolk</i>	<i>2/24/2017</i>
<i>Julian Cyr</i>	<i>Cape and Islands</i>	<i>3/9/2017</i>
<i>Frank A. Moran</i>	<i>17th Essex</i>	<i>3/29/2017</i>

SENATE No. 1880

By Mr. Pacheco, a petition (accompanied by bill, Senate, No. 1880) of Marc R. Pacheco, Jason M. Lewis, Jack Lewis, Dylan Fernandes and other members of the General Court for legislation to create 21st Century Massachusetts Clean Energy Jobs. Telecommunications, Utilities and Energy.

The Commonwealth of Massachusetts

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

An Act creating 21st Century Massachusetts Clean Energy Jobs.

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 10 of the General Laws is hereby amended by inserting after
2 section 35DDD the following section:-

3 Section 35EEE. There shall be an Oil Heat Fuel Energy Efficiency Trust Fund. The
4 commissioner of energy resources shall be the trustee of the fund and may expend money in the
5 fund to support oil heat energy efficiency programs. There shall be credited to the fund: (i) the
6 \$0.025 per gallon systems benefit assessment on each gallon of oil heat fuel sold for residential
7 or commercial use in the commonwealth under section 11J of chapter 25A; (ii) revenue from
8 appropriations or other money authorized by the general court and specifically designated to be
9 credited to the fund; (iii) funds from public or private sources including, but not limited to, gifts,
10 grants, donations, rebates and settlements that are specifically designated to be credited to the
11 fund; and (iv) the interest earned on money in the fund. The amounts credited to the fund shall

12 not be subject to appropriation and money remaining in the fund at the close of a fiscal year shall
13 not revert to the General Fund.

14 The commissioner shall expend not less than 20 per cent of the funds collected on
15 comprehensive low-income residential oil heat energy efficiency and education programs and
16 may expend funds on designing, marketing and providing cost-effective energy efficiency
17 programs for residential and commercial customers who utilize oil heat fuel for space heat or
18 domestic hot water heating and any other use under section 11J of chapter 25A.

19 Annually, not later than March 1, the commissioner shall submit a report detailing: (i) the
20 quarterly assessments collected under section 11J of chapter 25A; (ii) additional money
21 deposited in the fund; and (iii) the amount of disbursements made, including the recipient and
22 uses of the disbursements. The report shall be filed with the clerks of the senate and house of
23 representatives and the house and senate chairs of the joint committee on telecommunications,
24 utilities and energy.

25 SECTION 2. Chapter 10 of the General Laws is hereby amended by adding the
26 following section:-

27 Section 76. (a) For the purposes of this section the following words shall have the
28 following meanings unless the context clearly requires otherwise:

29 “Affiliate”, a business that directly or indirectly controls or is controlled by or is under
30 direct or indirect common control with another business including, but not limited to, a business
31 with whom a business is merged or consolidated, or which purchases all or substantially all of
32 the assets of a business.

33 “Decommissioning”, closing and decontaminating a nuclear power station and nuclear
34 power site including dismantling the facility, removing the nuclear fuel, coolant and nuclear
35 waste from the site, releasing the site for unrestricted use and terminating the license; provided
36 however, that, for the purposes of this section, SAFSTOR shall not be decommissioning.

37 “Nuclear power station”, a commercial facility that uses or used nuclear fuel to generate
38 electric power.

39 “Post-closure”, the period beginning when a nuclear power station has ceased generating
40 electric power and ending when the nuclear power station and station site have been completely
41 decommissioned.

42 “Post-closure activities”, the activities at or in connection with a nuclear power station
43 and station site during post-closure including, but not limited to, moving spent nuclear fuel into
44 dry casks, job training, site and environmental cleanup, off-site emergency planning, SAFSTOR
45 and decommissioning.

46 (b) Each nuclear power station shall pay an annual post-closure funding fee of
47 \$25,000,000 if the station is not fully decommissioned within 5 years of the time the power
48 station ceases generating electric power. The fee shall be assessed by the executive office of
49 energy and environmental affairs annually on the owner or affiliate of each nuclear power station
50 on March 1 and shall be paid to the state treasurer for deposit into the Nuclear Power Station
51 Decommissioning Trust Fund established in subsection (c). The fee shall be paid until: (i) the
52 nuclear power station is fully decommissioned as required under regulations promulgated by the
53 United States Nuclear Regulatory Commission; and (ii) the executive office of energy and

54 environmental affairs issues, after notice and an opportunity to be heard, an order finding that
55 post-closure activities have been completed.

56 (c) There shall be a Nuclear Power Station Post-closure Trust Fund. The state treasurer
57 shall serve as trustee of the fund and shall make expenditures from the fund to support
58 decommissioning measures including: (i) payments for not less than 1 post-closure activity
59 completed at a nuclear power station site, but only after the money in a federal decommissioning
60 trust fund is exhausted; and (ii) payments to a person or entity named in an issuance of
61 authorization from the executive office of energy and environmental affairs stating the amount to
62 be disbursed and the completed post-closure activities to which the amount applies. The fund
63 shall consist of: (i) the fee collected under subsection (b); and (ii) the interest earned on the
64 money in the fund. Amounts credited to the fund shall not be subject to further appropriation and
65 money remaining in the fund at the close of a fiscal year shall not revert to the General Fund.

66 (d) The executive office of energy and environmental affairs shall not issue authorization
67 for payment except upon the receipt of: (i) an affidavit or declaration, executed by an entity or
68 person responsible for completing the relevant post-closure activity at a nuclear power station
69 under the pains and penalties of perjury, identifying completed post-closure activity with respect
70 to which a disbursement is requested and setting forth facts establishing that each such activity
71 has been completed and the costs incurred by the nuclear power station owner with respect to
72 each such activity; and (ii) verification of the facts in the affidavit or declaration by the executive
73 office of energy and environmental affairs or another appropriate state agency.

74 The secretary of energy and environmental affairs shall determine the appropriate form,
75 content and supporting information necessary for the affidavit or declaration. Money disbursed

76 under this section in reliance on a false certification to the secretary of energy and environmental
77 affairs may be recovered from the entity or person receiving the disbursement, with interest,
78 through an action by the attorney general. A false certification shall be subject to section 5B of
79 chapter 12.

80 (e) The balance of the Nuclear Power Station Post-closure Trust Fund shall be returned to
81 the owner or affiliate of the nuclear power station upon the issuance of an order, after notice and
82 opportunity for hearing, finding that the post-closure activities at the station have been completed
83 by the executive office of energy and environmental affairs.

84 SECTION 3. The first paragraph of subsection (a) of section 11E of chapter 12 of the
85 General Laws, as appearing in the 2014 Official Edition, is hereby amended by striking out the
86 second sentence and inserting in place thereof the following sentence:- “The attorney general,
87 through the office of ratepayer advocacy, may intervene, appear and participate in
88 administrative, regulatory or judicial proceedings on behalf of any group of consumers in
89 connection with a matter involving a company doing business in the commonwealth and subject
90 to the jurisdiction of the department of public utilities or the department of telecommunications
91 and cable under chapters 164 to 166, inclusive.

92 SECTION 4. Section 97A of chapter 13 of the General Laws, as so appearing, is hereby
93 amended by striking out, in line 5, the words “documents to be provided” and inserting in place
94 thereof the following words:- that the results of a home energy audit and the residential
95 dwelling’s energy rating and label as established by the department of energy resources in
96 section 11G½ of chapter 25A be made available.

97 SECTION 5. Said section 97A of said chapter 13, as so appearing, is hereby further
98 amended by striking out, in lines 8 and 9, the words “closing, outlining the procedures and
99 benefits of a home energy audit; provided however, that” and inserting in place thereof the
100 following words:- “listing; provided, however, that if there is no public listing, the home energy
101 audit and the residential dwelling’s energy rating and label shall be made available prior to the
102 time of the signing of the purchase and sale agreement; provided further, that the home energy
103 audit and residential dwelling’s energy rating shall be valid under this section for 3 years; and
104 provided further, that.

105 SECTION 6. Said section 97A of said chapter 13, as so appearing, is hereby further
106 amended by adding the following 3 paragraphs:-

107 Notwithstanding the previous paragraph, a sale or transfer of a dwelling in the following
108 circumstances shall not require the disclosure of the results of a home energy audit and energy
109 assessment and may include documents disclosing the procedures and benefits of a home energy
110 audit: (i) a foreclosure or pre-foreclosure sale; (ii) a deeded or trustee sale; (iii) a transfer of title
111 related to the exercise of eminent domain; (iv) a sale between family members; (v) a sale under
112 court order; (vi) a sale under a decree of legal separation or divorce; or (vii) a sale or transfer that
113 involves a dwelling that is designated on the National Register of Historic Places or the state
114 register of historic places as a historic building or landmark.

115 The regulations under this section may include exemptions of the requirements for a
116 home energy audit for dwellings that were constructed within 3 years of the listing or sale and
117 that comply with the most recent energy provisions of the state building code that are applicable
118 to residential buildings.

119 The department of energy resources, in consultation with the energy efficiency advisory
120 council, shall track and publicly report, not less than quarterly, the number of home energy audits
121 conducted and energy ratings and labels issued.

122 SECTION 7. Chapter 21A of the General Laws is hereby amended by inserting after
123 section 26 the following section:-

124 Section 27. (a) Not later than June 1, 2019, and every 2 years thereafter, the secretary of
125 energy and environmental affairs or a designee, the secretary of transportation or a designee and
126 the commissioner of environmental protection or a designee, hereinafter referred to as “the
127 board”, with the participation of the department of energy resources and the department of public
128 utilities, together with other agencies that the board may designate, and in consultation with other
129 secretariats as the governor may determine, shall promulgate a comprehensive energy plan for
130 the commonwealth, hereinafter referred to as “the plan”. In developing the plan, the board shall
131 also consult with ISO New England Inc. and with the commonwealth’s electric and gas utilities.

132 (b) The plan shall be consistent with any climate adaption plan and shall include, but not
133 be limited to, the following goals and requirements:

134 (i) the plan should comply with the laws and policies governing energy including
135 chapter 298 of the acts of 2008;

136 (ii) the plan shall prioritize meeting energy needs first through conservation and
137 cost-effective energy efficiency and other cost-effective demand-reduction resources, and to the
138 maximum extent feasible, energy needs should be met with cost-effective renewable resources
139 and cogeneration;

140 (iii) the relationship of energy needs for electricity, transportation and building
141 heat, as well as the reduction of greenhouse gas and other air pollution emissions from the
142 transportation and building heating sector, shall be considered; and

143 (iv) the plan should provide for reliable and accessible energy that is as cost-
144 effective as is reasonably achievable.

145 (c) the plan shall include, and be based upon, reasonable projections of the
146 commonwealth's energy needs for electricity, thermal conditioning and transportation and shall
147 be designed to respond to those needs in a timely and cost-effective way that meet the targets for
148 reduction in greenhouse gas emissions under chapter 298 of the acts of 2008.

149 (d) the plan shall consider the energy needs of the states that border the commonwealth
150 and strategies to capture economies of scale and other benefits that may be derived from
151 collaboration or regional initiatives.

152 (e) Upon the adoption of the plan, the certificates, licenses, permits, authorizations, grants
153 and other actions and activities by a state agency or authority shall be consistent, to the
154 maximum extent feasible, with the plan.

155 (f) There shall be an energy plan advisory committee to assist in the development of the
156 plan: 1 of whom shall be the secretary of energy and environmental affairs, who shall serve as
157 chair; 1 of whom shall be the secretary of administration and finance; 1 of whom shall be the
158 secretary of transportation; 1 of whom shall be appointed by the attorney general; 1 of whom
159 shall be appointed by speaker of the house of representatives; 1 of whom shall be appointed by
160 the house minority leader; 1 of whom shall be appointed by the president of the senate; 1 of
161 whom shall be appointed by the senate minority leader; and 9 of whom shall be appointed by the

162 governor: 1 of whom shall represent consumers, 1 of whom who shall represent low-income
163 residents, 1 of whom who shall represent large employers, 1 of whom who shall represent small
164 employers, 1 of whom who shall represent the renewable energy industry, 1 of whom who shall
165 be from an environmental organization, 1 of whom shall represent an investor-owned local
166 distribution company, 1 of whom shall represent the energy efficiency industry and 1 of whom
167 shall represent a municipal-owned local distribution company. The energy plan advisory
168 committee shall prepare a report to be delivered to the board every 3 years, 6 months prior to the
169 triennial June 1 promulgation date for the plan. The energy plan advisory committee may retain
170 expert consultants; provided, however, that the consultants shall not have a contractual
171 relationship with an electric or natural gas distribution company doing business in the
172 commonwealth or an affiliate of such a company.

173 After receiving the report of the energy plan advisory committee, the board shall modify
174 the plan, if appropriate, and shall provide for public notice and comment on the plan by
175 convening no fewer than 5 hearings on the plan across the commonwealth. After receiving public
176 comment, the board shall further modify the plan, if appropriate, and shall then issue a final plan,
177 which shall be filed, together with any proposed legislation necessary to implement the plan,
178 with the clerks of the senate and the house of representatives and the senate and house chairs of
179 the joint committee on telecommunications, utilities and energy.

180 SECTION 8. The General Laws are hereby amended by inserting after chapter 21N the
181 following chapter: Chapter 21N1/2.

182 GLOBAL WARMING SOLUTIONS IMPLEMENTATION ACT.

183 Section 1. Terms defined in section 1 of chapter 21N have the same meaning when used
184 in this chapter.

185 Section 2. After conducting the modeling and analysis required in section 3, and no later
186 than December 31, 2020, the secretary shall adopt the interim 2030 and 2040 emissions limits
187 consistent with that analysis and as required by section 3(b) of chapter 21N. The interim 2030
188 emissions limit shall be between 35 and 45 per cent below the 1990 level, and the interim 2040
189 emissions limit shall be between 55 and 65 per cent below the 1990 level.

190 Section 3. Prior to adopting the interim 2030 and 2040 emissions limits required by
191 section 3(b) of chapter 21N, the secretary shall conduct detailed, quantitative modeling and
192 analysis of the commonwealth's energy economy and emissions in their regional context, to
193 include the regional electric grid, sufficient to identify multiple technically and economically
194 feasible pathways of reducing statewide emissions consistent with the 2050 emissions limit
195 required by section 3(b) of chapter 21N. Such modeling and analysis shall employ back-casting
196 methodology, shall be comparable to that conducted by the European Union in support of its
197 Roadmap 2050 effort, and may be conducted in conjunction with other states or regional entities
198 as part of an analysis of reducing regional emissions in 2050 to a level consistent with those
199 required by chapter 21N for the commonwealth. The secretary shall publish the results of the
200 modeling and analysis required by this section, and shall also make available for public
201 inspection and use the model, all model assumptions, and all input and output data.

202 Section 4. Following the adoption of the interim 2030 and 2040 emissions limits
203 required by section 3(b) of chapter 21N, and in any case no later than December 31, 2023, the
204 commonwealth and its agencies shall promulgate regulations necessary to achieve declining

205 annual aggregate emissions from sources or categories of sources that emit greenhouse gas
206 emissions as required to achieve a 2050 statewide emissions limit that is at least 80 per cent
207 below the 1990 level. The development of such regulations shall be coordinated by the
208 secretary, and shall be consistent with the modeling and analysis required in section 3 and with
209 the adopted interim 2030 and 2040 emissions limits. Consistent with section 9 of chapter 21N,
210 the commonwealth and its agencies are authorized to create, expand, or join market-based
211 compliance mechanisms, including but not limited to greenhouse gas emissions trading and
212 carbon pricing programs, in order to achieve required greenhouse gas emissions reductions.

213 SECTION 9. The General Laws are hereby amended by inserting after chapter 21O the
214 following chapter:-

215 CHAPTER 21P.

216 COMPREHENSIVE ADAPTATION MANAGEMENT ACTION PLANNING IN
217 RESPONSE TO CLIMATE CHANGE.

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

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

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

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

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

229 “Public utility company”, a public utility company as defined in clause (7) of paragraph
230 (j) of section 5 of chapter 21E.

231 “Resilience”, the ability to respond and adapt to changing conditions and withstand and
232 rapidly recover with minimal damage from disruption due to climate-related events and impacts
233 that may include, but shall not be limited to, shoreline improvement, seawall maintenance and
234 expansion, infrastructure improvement or innovative building design and construction.

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

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

248 Section 2. (a) The secretary of energy and environmental affairs and the secretary of
249 public safety and security, in consultation with appropriate secretariats as determined by the
250 governor, shall develop, draft, adopt and revise, at least once every 10 years, a comprehensive
251 adaptation management action plan. The plan shall encourage and provide guidance to state
252 agencies, state authorities and regional planning agencies to proactively address the
253 consequences of climate change. The plan shall also provide a process for local and regional
254 climate vulnerability assessment and adaptation strategy development and implementation and
255 may encourage and provide guidance to cities and towns to proactively address the consequences
256 of climate change. The plan and any updates shall be filed with clerks of the senate and the house
257 of representatives. The plan shall be developed with guidance from the comprehensive
258 adaptation management action plan advisory commission established in section 3.

259 Upon the adoption of the plan, the certificates, licenses, permits, authorizations, grants,
260 financial obligations, projects, actions and approvals for proposed projects, uses or activities in
261 and by a state agency or state authority shall be consistent, to the maximum extent practicable,
262 with the plan.

263 (b) The plan shall include, but not be limited to: (i) a statement setting forth the
264 commonwealth's goals, priorities and principles for ensuring effective prioritization for the
265 resiliency, preservation, protection, restoration and enhancement of the commonwealth's built
266 and natural infrastructure; (ii) a commitment to sound management practices, which shall take
267 into account the existing natural, built and economic characteristics of the commonwealth's most
268 vulnerable areas and human populations; (iii) data on existing and projected climate trends,
269 according to the best and latest data, forecasting and models including, but not limited to,
270 changes for temperature, precipitation, drought, sea level, and inland and coastal flooding; (iv) a

271 statement on the preparedness and vulnerabilities in the commonwealth's emergency response
272 and infrastructure resiliency including, but not limited to, energy, transportation,
273 communications, health and other systems; (v) an assessment of economic vulnerability,
274 including but not limited to, local businesses in high-risk communities; and (vi) an assessment of
275 natural resources and ecosystems, identifying vulnerabilities and strategies to preserve, protect,
276 restore and enhance.

277 Section 3. (a) There shall be a comprehensive adaptation management action plan
278 advisory commission to assist the secretary of energy and environmental affairs and the secretary
279 of public safety and security in developing the comprehensive adaptation management plan. The
280 commission shall consist of: the secretary of the energy and environmental affairs or a designee;
281 the secretary of public safety and security or a designee; 1 person from the University of
282 Massachusetts with expertise in climate science chosen by the university; and 18 persons to be
283 appointed by the secretary of energy and environmental affairs and the secretary of public safety
284 and security, 1 of whom shall have expertise in transportation and built infrastructure, 1 of whom
285 shall have expertise in commercial, industrial and manufacturing activities, 1 of whom shall have
286 expertise in commercial and residential property management and real estate, 1 of whom shall
287 have expertise in energy generation and distribution, 1 of whom shall have expertise in wildlife
288 and land conservation, 1 of whom shall have expertise in water supply and conservation, 1 of
289 whom shall have expertise in the outdoor recreation economy, 1 of whom shall have expertise in
290 economic and environmental justice, 1 of whom shall have expertise in ecosystem dynamics, 1
291 of whom shall have expertise in coastal zones and oceans, 1 of whom shall have expertise in
292 rivers and wetlands, 1 of whom shall be a professional engineer, 1 of whom shall be from a
293 statewide nonprofit land and water conservation organization, 1 of whom shall have expertise in

294 historic and cultural resources, 1 of whom shall be a property owner in a coastal community, 1 of
295 whom shall have expertise in small business administration, 1 of whom shall be a certified
296 floodplain manager and 1 of whom shall have expertise in local government. The secretary of
297 energy and environmental affairs and the secretary of public safety and security shall jointly
298 designate an appointee to serve as chair.

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

300 (1) identifying: (i) how the secretary of energy and environmental affairs can support the
301 existing adaptation, resilience and hazard mitigation efforts of state agencies, including, but not
302 limited to, the StormSmart Coasts program at the office of coastal zone management, the coastal
303 erosion commission report, BioMap2 at the department of fish and game and vulnerability
304 studies being conducted by the department of public health and the Massachusetts Department of
305 Transportation; (ii) recommendations of new actions that may be implemented immediately
306 using existing state agency legal authority, state resources and funding based upon the
307 recommendations included in the climate change adaptation report prepared pursuant to section 9
308 of chapter 298 of the acts of 2008 and existing climate change action plans prepared by regional
309 planning agencies and municipalities; (iii) unilateral actions that can be taken by the executive
310 branch to increase climate adaptation, resilience and hazard mitigation including, but not limited
311 to, executive orders and policy directives issued by the governor or policies, regulations and
312 guidance by the secretary of energy and environmental affairs; (iv) recommendations of new
313 climate resilience and adaptation actions that require legislative authority, state resources or
314 funding, including the identification of funds to leverage opportunities through public-private
315 partnerships; and (v) the cost of climate adaptation within the 10-year term of the plan, based
316 upon the adaptation actions recommended in the report, existing climate action plans, including

317 those prepared by regional planning councils, municipal and state agency cost assessments
318 outlined in section 4; and

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

324 Section 4. Each state agency, state authority and public utility, as designated by the
325 secretary of environmental affairs and the secretary of public safety and security, shall, in
326 consultation with the executive office, develop and update, at least once every 10 years, a
327 vulnerability and adaptation assessment for their portfolio of assets based on the relevant
328 scientific data and information collected by the comprehensive adaptation management action
329 plan advisory commission pursuant to section 3. The vulnerability assessments shall classify the
330 economic losses over time that are associated with each major asset for the relevant climate risks
331 including, but not limited to, coastal and inland flooding and extreme heat, as unacceptable,
332 noncritical or immaterial. For assets exposed to material risk of unacceptable losses, the
333 vulnerability assessment shall include order-of-magnitude cost-estimates for: (i) measures to
334 protect the assets; (ii) measures to make the assets resilient; and (iii) removal and relocation of
335 the assets from exposed areas. Estimates shall also be prepared for the economic, social and
336 environmental damages that will result if no adaptation actions are taken. Qualitative cost-benefit
337 discussions of projected social impacts of flood prevention versus flood resilience shall also be
338 included in the vulnerability assessment.

339 Section 5. The secretary of energy and environmental affairs and the secretary of public
340 safety and security shall, at least 6 months before establishing a comprehensive plan pursuant to
341 this chapter, provide for public access to the draft plan in electronic and printed copy form and
342 shall provide for a public comment period, which shall include at least 5 public hearings across
343 the commonwealth. The secretary of energy and environmental affairs and the secretary of public
344 safety and security shall publish notice of a public hearing in the environmental monitor at least
345 30 days but not more than 35 days before the date of a hearing. A notice of a public hearing shall
346 also be placed at least once each week for the 4 consecutive weeks preceding the hearing in
347 newspapers with sufficient circulation to notify the residents of the municipality in which the
348 hearings shall be held. The public comment period shall remain open for at least 60 days from
349 the date of the final public hearing. After the close of the public comment period, the secretary of
350 energy and environmental affairs and the secretary of public safety and security shall issue a
351 final plan and shall file the plan, together with legislation necessary to implement the plan, if
352 any, by filing the same with the clerks of the senate and the house of representatives.

353 Section 6. The plan shall be consistent with this chapter and other general and special
354 laws. Nothing in the plan shall be construed to supersede existing general or special laws, to
355 confer a right or to adversely impact existing rights or remedies in addition to those conferred by
356 the general or special laws existing on the effective date of this chapter.

357 SECTION 10. Section 21 of chapter 25 of the General Laws, as appearing in the 2014
358 Official Edition, is hereby amended by striking out, in line 51, the word “and”.

359 SECTION 11. Clause (iv) of paragraph (2) of subsection (b) of said section 21 of said
360 chapter 25, as so appearing, is hereby amended by striking out subclause (I) and inserting in

361 place thereof the following 2 subclauses:- “(I) programs for public education regarding energy
362 efficiency and demand management; and (J) energy storage system programs designed to
363 enhance demand side management.

364 SECTION 12. The department of energy resources, in conjunction with the
365 Massachusetts Development Finance Agency, shall develop and implement regulations to
366 establish a residential sustainable energy program to provide financing to residential property
367 owners for energy efficient and renewable energy improvements.

368 SECTION 13. Section 11F of chapter 25A, as appearing in the 2014 Official Edition, is
369 hereby amended by striking out the subsection (a) and inserting in place thereof the following:-

370 Section 11F. (a) The department shall establish a renewable energy portfolio standard for
371 all retail electricity suppliers selling electricity to end-use customers in the commonwealth. By
372 December 31, 1999, the department shall determine the actual percentage of kilowatt-hours sales
373 to end-use customers in the commonwealth which is derived from existing renewable energy
374 generating sources. Every retail supplier shall provide a minimum percentage of kilowatt-hours
375 sales to end-use customers in the commonwealth from new renewable energy generating sources,
376 according to the following schedule: (1) an additional 1 per cent of sales by December 31, 2003 ,
377 or 1 calendar year from the final day of the first month in which the average cost of any
378 renewable technology is found to be within 10 per cent of the overall average spot-market price
379 per kilowatt-hour for electricity in the commonwealth, whichever is sooner; (2) an additional
380 one-half of 1 per cent of sales each year thereafter until December 31, 2009; (3) an additional 1
381 per cent of sales every year until December 31, 2017; and (4) an additional 3 per cent of sales
382 each year thereafter.

383 Beginning in 2018, municipal electric departments and municipal light boards shall
384 provide a minimum percentage of kilowatt-hours sales to customers in their territory that is
385 derived from renewable energy generating sources, provided however, that any renewable
386 energy generated by a qualifying RPS Class I resource owned or leased by the municipal electric
387 department or municipal light board and sold to customers outside the department's or board's
388 service territory shall not count toward the minimum percentage of renewable energy kilowatt-
389 hour sales required under this section.

390 The minimum percentage of kilowatt-hours sales shall be provided according to the
391 following schedule: (1) one-half of one per cent of sales by December 31, 2018; (2) an additional
392 one-half of 1 per cent of sales each year thereafter until December 31, 2025; (3) an additional 1
393 per cent of sales every year until December 31, 2029; and (4) an additional 2 per cent of sales by
394 December 31, 2030 and each year thereafter. For the purpose of this subsection, a new
395 renewable energy generating source is one that begins commercial operation after December 31,
396 1997, or that represents an increase in generating capacity after December 31, 1997, at an
397 existing facility. Commencing on January 1, 2009, such minimum percentage requirement shall
398 be known as the "Class I" renewable energy generating source requirement.

399 SECTION 14. Said section 11F of chapter 25A is hereby further amended by striking out
400 subsection (c), as so appearing, and inserting in place thereof the following:-

401 (c) New renewable energy generating sources meeting the requirements of this subsection
402 shall be known as Class I renewable energy generating sources. For the purposes of this
403 subsection, a Class I renewable energy generating source is one that began commercial operation
404 after December 31, 1997, or represents the net increase from incremental new generating

405 capacity after December 31, 1997 at an existing facility, where the facility generates electricity
406 using any of the following: (1) solar photovoltaic or solar thermal electric energy; provided,
407 however, that (i) each such new facility with a nameplate capacity greater than 100 KW or
408 increased capacity of greater than 100KW at existing facilities shall meet appropriate and site-
409 specific standards that avoid and minimize impacts on soils, habitat, and water quality including
410 mitigation and enhancement measures as determined by the department in consultation with
411 relevant state and federal environment and natural resource agencies; (2) wind energy; (3) ocean
412 thermal, wave or tidal energy; (4) fuel cells utilizing renewable fuels; (5) landfill gas; (6) energy
413 generated by new hydroelectric facilities, or incremental new energy from increased capacity or
414 efficiency improvements at existing hydroelectric facilities; provided, however, that (i) each such
415 new facility or increased capacity or efficiency at each such existing facility must meet
416 appropriate and site-specific standards that address adequate and healthy river flows, water
417 quality standards, fish passage and protection measures and mitigation and enhancement
418 opportunities in the impacted watershed as determined by the department in consultation with
419 relevant state and federal agencies having oversight and jurisdiction over hydropower facilities;
420 (ii) only energy from new facilities having a capacity up to 25 megawatts or attributable to
421 improvements that incrementally increase capacity or efficiency by up to 25 megawatts at an
422 existing hydroelectric facility shall qualify; and (iii) no such facility shall involve pumped
423 storage of water or construction of any new dam or water diversion structure constructed later
424 than January 1, 1998; (7) low emission advanced biomass power conversion technologies using
425 fuels such as wood, by-products or waste from agricultural crops, food or animals, energy crops,
426 biogas, liquid biofuel including but not limited to biodiesel, organic refuse-derived fuel, or algae;
427 (8) marine or hydrokinetic energy as defined in section 3; or (9) geothermal energy. A Class I

428 renewable generating source may be located behind the customer meter within the ISO -NE
429 control area if the output is verified by an independent verification system participating in the
430 NEPOOL GIS accounting system and approved by the department.

431 SECTION 15. Said chapter 25A is hereby amended by inserting after section 11G the
432 following section:-

433 Section 11G½. (a) The department shall establish an energy rating and labeling system
434 that stores and provides information regarding energy performance of single family residential
435 dwellings, multi-family residential dwellings with less than 5 units and condominium units. The
436 energy rating and labeling system shall provide a consistent scoring method regarding the energy
437 performance of a residential dwelling that is based upon the physical assets of the unit. The
438 energy rating and labeling system shall include, but not be limited to, information regarding
439 annual: (i) energy consumption by fuel; (ii) energy costs for electricity and thermal needs; and
440 (iii) carbon or greenhouse gas emissions.

441 (b) The home energy rating and label shall be provided to the owner of a single-family
442 residential dwelling, a multi -family residential dwelling with less than 5 units and a
443 condominium as part of: (i) a home energy assessment or in-home visit by qualified home energy
444 assessors provided as part of the energy efficiency investment plan pursuant to section 21 of
445 chapter 25 of the General Laws; (ii) a RESNET Home Energy Rating System rating assessment,
446 by a RESNET-qualified home energy rater; or (iii) any other qualified energy assessment as
447 determined by the department. A home energy rating and label provider shall provide an
448 electronic record to the department with sufficient data to reproduce each unit's home energy
449 rating and label within 30 days after the completion of the label.

450 (c) The department may promulgate regulations that are necessary to implement this
451 section

452 SECTION 16. Said chapter 25A is hereby further amended by inserting after section 11I
453 the following section:-

454 Section 11J. (a) For the purposes of this section the following words shall have the
455 following meanings unless the context clearly requires otherwise:

456 “Fuel oil industry” or “oil heat industry”, persons in the production, transportation or sale
457 of oil heat fuel and persons engaged in the manufacture or distribution of oil heat fuel utilization
458 equipment, not including the ultimate consumers of oil heat fuel.

459 “No. 1 distillate”, fuel oil classified as No. 1 distillate by ASTM International.

460 “No. 2 dyed distillate”, fuel oil classified as No. 2 distillate by ASTM International that
461 is indelibly dyed under the Internal Revenue Code, 26 U.S.C. 4082(a)(2).

462 “Cost Effective”, with respect to an energy efficiency program, the program meets a cost-
463 benefit test, which requires that the net present value of economic benefits over the life of the
464 program or measure, including avoided supply and delivery costs and deferred or avoided
465 investments, environmental benefits and avoided environmental costs, avoided operation and
466 maintenance costs and other appropriate energy and non-energy benefits as determined by the
467 department, is greater than the net present value of the costs over the life of the program.

468 “Energy efficiency advisory council”, the energy efficiency advisory council established
469 pursuant to section 22 of chapter 25.

470 “Oil heat fuel”, No.1 distillate and No.2 dyed distillate that is used as a fuel for
471 residential or commercial space or hot water heating.

472 "Person", a natural person, corporation or other legal entity.

473 “Program administrator”, an electric distribution company or municipal aggregator with
474 an energy plan certified by the department of public utilities.

475 “Retail marketer”, a person engaged primarily in the sale of oil heat fuel to ultimate
476 consumers.

477 “Wholesale distributor”, a person that: (i) produces No. 1 distillate or No. 2 dyed
478 distillate, imports No. 1 distillate or No. 2 dyed distillate, blends No. 1 distillate or No. 2 dyed
479 distillate with biodiesel or biofuels or transports No. 1 distillate or No. 2 dyed distillate across
480 state boundaries or among local marketing areas; and (ii) sells the products to retail home or
481 commercial heating oil companies for resale.

482 (b) (1) The department shall require a systems benefit assessment of \$.025 per gallon on
483 each gallon of oil heat fuel sold for residential or commercial use in the commonwealth in order
484 to establish oil heat energy efficiency programs. The assessment shall be collected at the point of
485 sale of oil heat fuel by a wholesale distributor to a person other than a wholesale distributor,
486 including a sale made pursuant to an exchange. A wholesale distributor shall be responsible for
487 payment of the assessment to the department on a quarterly basis and shall provide to the
488 department certification of the volume of fuel sold. No. 1 distillate and No. 2 dyed distillate fuel
489 sold for uses other than as oil heat fuel are excluded from the assessment. Distillate fuel used by
490 vessels, railroad, utilities, farmers and the military are exempt from the assessment. The

491 department shall deposit the assessment collected in the Oil Heat Fuel Energy Efficiency Trust
492 Fund under section 35EEE of chapter 10.

493 (2) The funds shall be disbursed by the commissioner of energy resources to the program
494 administrators and expended by the program administrators pursuant to this section, and subject
495 to the approval of the energy efficiency advisory council established in section 22 of chapter 25,
496 to design, market and provide cost-effective energy efficiency programs for residential and
497 commercial customers who utilize oil heat fuel for space heat or domestic hot water heating.

498 At least 20 per cent of the funds collected shall be spent on comprehensive low-income
499 residential oil heat energy efficiency and education programs. The commissioner shall designate
500 that these programs be implemented through the low-income weatherization and fuel assistance
501 program network administered by the department of housing and community development.

502 (c) (1) The energy efficiency advisory council shall advise the department on all aspects
503 of oil energy efficiency funds and programs. An action of the council pertaining to disbursement
504 of oil heat efficiency funds and programs shall require a majority vote.

505 The energy efficiency advisory council shall establish a target budget designed to ramp-
506 up over time to capture cost-effective energy efficiency for heating oil and a corresponding
507 annual assessment designed to recover enough money to fund the programs.

508 (2) The program administrators shall incorporate oil heat energy efficiency programs into
509 their energy efficiency investment plans developed pursuant to section 21 of chapter 25. The
510 department may allow for transitional, 1-year plans in order to achieve consistency with said
511 section 21 of said chapter 25.

512 (3) Programs shall be designed to treat all energy use in a building in a comprehensive
513 and coordinated fashion with maximum use of common program designs, integrated programs
514 and a common pool of energy efficiency vendors and contractors who can treat the energy use in
515 a building comprehensively.

516 The financial incentives used in the programs may be a combination of low or 0 interest
517 loans or direct rebates and other financial incentives. Incentives for oil heating system
518 replacements under this section shall be used for efficient, new oil heating systems.

519 (4) The energy efficiency advisory council shall solicit input from the oil heat industry,
520 consumer groups and low-income advocacy groups regarding the implementation of this section
521 and delivery of program services.

522 (5) From time to time, the program administrators shall undertake, or cause to be
523 undertaken, an assessment of cost effective oil heat energy efficiency resource potential in the
524 commonwealth.

525 (6) The energy efficiency advisory council, in collaboration with the program
526 administrator, shall prepare an annual report for submission to the house and senate chairs of the
527 joint committee on telecommunications, utilities and energy and the public through the
528 department of energy resources that shall include, but shall not limited to: a description of the
529 amount and use of proceeds from the oil heat systems benefit assessment; a description of the
530 energy efficiency programs funded through the proceeds; the demonstration of consumer
531 savings, cost-effectiveness and the lifetime and annual energy savings achieved by the energy
532 efficiency programs funded; and the lifetime and annual greenhouse gas emissions benefits
533 achieved by energy efficiency programs funded.

534 SECTION 17. (a) On or before December 31, 2018, the department of energy resources
535 shall set a statewide deployment target of 1,766 MW of cost effective energy storage to be
536 achieved by January 1, 2025.

537 (b) On or before December 31, 2020, the department of energy resources shall set a
538 subsequent statewide energy storage deployment target to be achieved by January 1, 2030.

539 (c) Energy storage targets established in subsections (a) and (b) shall include limits on the
540 quantity of energy storage that can be owned by load serving entities.

541 (d) As part of the determinations in subsections (a) and (b), the department may consider
542 a variety of policies to encourage the cost-effective deployment of energy storage systems,
543 including the refinement of existing procurement methods to properly value energy storage
544 systems, the use of alternative compliance payments to develop pilot programs, the use of energy
545 storage to replace baseload generation and the use of energy efficiency funds under section 19 of
546 chapter 25 of the General Laws if the department determines that customer-owned energy
547 storage provides sustainable peak load reductions on either the electric or gas distribution
548 systems and is otherwise consistent with section 11G of chapter 25A of the General Laws.

549 (e) The department shall reevaluate the procurement targets not less than once every 3
550 years.

551 (f) Not later than January 1, 2025, each load serving entity shall submit a report to the
552 department of energy resources demonstrating that it has complied with the energy storage
553 system procurement targets and policies adopted by the department pursuant to subsection (a).

554 (g) Not later than January 1, 2030, each load serving entity shall submit a report to the
555 department of energy resources demonstrating that it has complied with the energy storage
556 system procurement targets and policies adopted by the department pursuant to subsection (b).

557 (h) The department may establish alternative compliance payments for load serving
558 entities for failure to procure energy storage in sufficient quantities to meet the targets
559 established in subsections (a) and (b).

560 SECTION 18. Section 94A of chapter 164 of the General Laws is amended by inserting,
561 at the end thereof, the following paragraph:

562 The department shall not approve any pipeline capacity contract or gas storage contract
563 where new capacity is proposed to be created through the installation of gas infrastructure in land
564 that, at the time the contract is submitted to the department for approval, is protected under
565 Article 97 of the Articles of Amendments to the Constitution of the Commonwealth. Subsequent
566 siting approvals of gas infrastructure in such constitutionally protected land shall void
567 departmental approval of related pipeline capacity or gas storage contracts.

568 SECTION 19. Said section 94A of chapter 164 of the General Laws, as appearing in the
569 2014 Official Edition, is hereby further amended by adding the following paragraph:-

570 Nothing in this section shall be construed to authorize the department to review and
571 approve a contract for natural gas pipeline capacity filed by an electric company

572 SECTION 20. Section 134 of said chapter 164, as so appearing, is hereby amended by
573 adding the following subsection:

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

576 “Alternative Compliance Payment,” or “ACP,” an amount established by the department
577 of energy resources that retail electricity suppliers may pay in order to discharge their Renewable
578 Portfolio Standard obligation, as required under section 11F of chapter 25A.

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

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

583 “Department”, the department of public utilities.

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

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

589 “Participant”, a customer within a municipality that has entered into a community
590 empowerment contract, so long as that customer did not opt out of, or is prevented from
591 participating in, the community empowerment contract under subsection (d).

592 “Renewable energy certificate”, a certificate representing the environmental attributes of
593 1 megawatt hour of electricity generated by a renewable energy project, the creation, use and
594 retirement of which is administered by ISO New England, Inc.

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

597 “Renewable energy project” or “project”, a facility that generates electricity using a Class
598 1 renewable energy resource and is qualified by the department of energy resources as eligible to
599 participate in the renewable energy portfolio standard under section 11F of chapter 25A and to
600 sell renewable energy certificates under the program.

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

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

607 (2) A municipality may, on behalf of the electricity customers within the municipality,
608 enter into a community empowerment contract with a company that proposes to construct a
609 renewable energy project. A municipality may enter into more than 1 community empowerment
610 contract and may enter into a new contract at any time prior to December 31, 2021.

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

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

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

618 (iii) the contract shall be structured as a contract for differences so as to stabilize
619 electricity prices for participants and shall specify a fixed price for the energy and renewable
620 energy certificates to be generated by the project; provided, however, that the contract shall also
621 specify a means by which the project's contracted amount of energy and renewable energy
622 certificates shall be sold to a third party, at a price established by the wholesale market or an
623 index and as agreed by the parties to the contract, and the proceeds from which shall be credited
624 to the amount owed from the participants to the project; provided further, that if the amount
625 earned in a sale exceeds the agreed fixed price, the participants shall be credited from the project
626 for the difference between the sale price and the contracted fixed price; and provided further, that
627 a contract shall not be an agreement to physically deliver electric energy to the participants but it
628 may require delivery of renewable energy certificates;

629 (iv) the contract shall specify whether renewable energy certificates from the
630 renewable energy project are to be provided and, if so provided, shall specify how the renewable
631 energy certificates are to be transmitted and disposed of or retired; provided, however, that
632 renewable energy certificates purchased through a contract may be: (A) assigned to the load of
633 each participant or subset of participants, as stipulated in the contract, so as to increase the
634 amount of renewable energy attributed to use by the participants in the aggregate; or (B) sold in a
635 transparent, competitive process, the proceeds from which shall be applied to the contract for
636 differences mechanism under clause (iii); and provided further, that a renewable energy
637 certificate purchased through a contract shall not be used by a basic service supply provider or
638 competitive supply provider to meet its requirements under the renewable energy portfolio

639 standard unless the renewable energy certificate is first sold to the supplier in a competitive,
640 transparent process under this clause;

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

643 (vi) the contract shall describe the calculations by which a charge or credit to a
644 participant or to the renewable energy project are calculated based on the contract for differences
645 mechanism under clause (iii); provided, however, that the calculations shall ensure full payment
646 or credit to the renewable energy project even if a participant does not make full payment of the
647 participant's distribution utility bill; provided further, that if there is a nonpayment of all or a
648 portion of a distribution utility bill, an increase in charges to the contract participants may be
649 used to ensure sufficient revenue to meet obligations to the project; and provided further, that the
650 contract shall specify a contract administrator who shall perform the calculations under this
651 subsection and determine, for implementation by the distribution utility, the charges and credits
652 due to the project, participants, distribution utility and others as required by the contract; and

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

655 (4) A town may enter into a community empowerment contract upon authorization by a
656 majority vote of town meeting, town council or other municipal legislative body. A city may
657 authorize a community empowerment contract by a majority vote of the city council or
658 municipal legislative body, with the approval of the mayor or the city manager in a Plan D or
659 Plan E form of government. Two or more municipalities may initiate a process jointly to
660 authorize community empowerment contracting by a majority vote of each municipality under

661 this paragraph. Prior to an authorizing vote, a public hearing shall be held to inform the
662 municipalities of the proposed contract, the impact on residents and information on how to opt
663 out of the contract if it proceeds. This hearing shall specify the proposed project under the
664 contract and the length of the contract. An entity that is not a party to the contract shall estimate
665 the contract's rate impacts under reasonable scenarios for future energy prices and the estimates
666 shall be presented. The proposed project and contract information, estimated rate impact on
667 constituents, procedure for customers to opt out of the proposed contract and information
668 regarding the public hearing shall also be mailed to the residents of the municipalities 30 days
669 before the hearing.

670 (5) The electricity customers within a municipality shall be required to participate in a
671 community empowerment contract; provided, however, that a customer may opt not to
672 participate in a contract if the customer provides notice to an administrator designated by the
673 municipality within 90 days after the vote authorizing a contract or, in the case of a residential
674 user receiving a low-income electric rate, at any time. A residential or small commercial
675 customer that establishes service in the municipality after a proposed contract shall have 90 days
676 to opt not to participate. No customer shall be a participant in a contract if that customer uses
677 more than 5 per cent of the total annual electricity usage of the electricity customers located
678 within a single municipality that is a party to the contract or, in the case of a contract with a
679 group of municipalities, 5 per cent of the total annual electricity usage of the electricity
680 customers located in the group of municipalities that are parties to the contract. A large
681 commercial customer within a municipality may become a participant unless otherwise
682 prohibited and, upon electing to become a participant, shall remain a participant for the

683 remainder of the community empowerment contract as long as the large commercial customer
684 continues to be located within the municipality.

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

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

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

699 (iii) establish guidelines or standards by which the contract administrator under
700 clause (vi) of paragraph (3) shall: (A) provide utility adjustments to charges to the distribution or
701 credits to participants via a line item on the distribution utility bill; and (B) provide information
702 to the distribution utility that is necessary to enable it to make or receive payments to or from the
703 project and to others as necessary; provided, however, that each community empowerment
704 contract shall be indicated on a participant's distribution utility bill by a line item specific to the

705 contract; and provided further, that a distribution utility may recover verifiable and reasonable
706 costs for the implementation of this subsection from a contract party or participant except as
707 provided for in clause (iv). Should implementation of this subsection require changes to the
708 distribution utility company's billing system that would not otherwise be incurred, the cost of
709 implementing such changes may, upon approval by the department as being verifiable,
710 reasonable, and necessary to implement this subsection, be paid for by ACP funds or, if available
711 ACP funds are insufficient, by the Massachusetts Renewable Energy Trust Fund, as established
712 by General Laws chapter 23J, section 9.

713 (iv) establish guidelines or standards by which distribution company customers
714 may receive or access accurate energy source disclosure information, taking into account the
715 renewable energy certificates that may be ascribed to each customer's electricity usage and
716 regardless of the source from which the renewable energy certificates were supplied or
717 purchased. Should implementation of this subsection require changes to the distribution utility
718 company's billing system that would not otherwise be incurred, the cost of implementing such
719 changes may, upon approval by the department as being verifiable, reasonable, and necessary to
720 implement this subsection, be paid for by ACP funds or, if available ACP funds are insufficient,
721 by the Massachusetts Renewable Energy Trust Fund, as established by General Laws chapter
722 23J, section 9.

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

724 (i) establish the manner in which, in the case of a community empowerment
725 contract in which the renewable energy certificates are to be assigned to participants, the

726 renewable energy certificates may be transmitted and retired appropriately and the energy source
727 disclosure information accurately provided to participants; and

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

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

735 (8) A community empowerment contract shall be in addition to, and aside from, an
736 electricity supply contract that a customer may have at the time of the contract or that that the
737 customer may later seek to establish. A municipality that enters into a community empowerment
738 contract under this subsection shall not be considered a wholesale or retail electricity supplier. A
739 community empowerment contract shall not require participants to change their choice of
740 electricity supplier regardless of whether the supplier is a competitive supplier or a basic service
741 supplier.

742 (9) To participate in the community empowerment pilot program, a municipality or group
743 of municipalities shall be located in the county of Barnstable, Dukes County or Nantucket.

744 (10) Not later than 1 year after a municipality enters into the first community
745 empowerment contract through the pilot program, and annually thereafter for 5 years, the
746 secretary of energy and environmental affairs shall submit a report to the house and senate chairs
747 of the joint committee on telecommunications, utilities and energy that details the results of the

748 pilot program, including information on the renewable energy projects funded under the pilot
749 program and the effects of the pilot program on: (i) the stabilization of prices for electricity
750 customers; (ii) the enhancement of local energy security and reliability; (iii) the fostering of
751 economic development; and (iv) the reduction of electric system carbon emissions.

752 SECTION 21. Section 139 of chapter 164 is hereby amended by striking out subsection
753 (f) and inserting in place thereof the following subsection:- (f) No aggregate net metering cap
754 shall apply to solar net metering facilities with the exception that the maximum amount of
755 generating capacity eligible for net metering by a municipality or other governmental entity shall
756 be 10 megawatts.

757 SECTION 22. Section 9 (j) of Chapter 75 of the Acts of 2016 is hereby amended by
758 striking the first sentence of the third paragraph and inserting at the beginning of the paragraph:-

759 The department shall exempt any monthly minimum reliability contribution for low-
760 income ratepayers and community solar ratepayers. The department may exempt or modify any
761 monthly minimum reliability contribution for municipal ratepayers.

762 SECTION 23. Chapter 169 of the acts of 2008, as amended by Chapter 188 of the acts of
763 2016, is hereby amended by striking sections 83B through 83D and inserting in place thereof the
764 following:-

765 Section 83B. For the purposes of this section and sections 83C and 83D, the following
766 words shall have the following meanings unless the context clearly requires otherwise:

767 “Affiliated company”, an affiliated company as defined in section 85 of chapter 164 of
768 the General Laws.

769 “Clean energy generation”, (i) hydroelectric generation; (ii) new Class I renewable
770 portfolio standard eligible resources that are firming up with hydroelectric generation; or (iii) new
771 Class I renewable portfolio standard eligible resources.

772 “Distribution company”, a distribution company as defined in section 1 of chapter 164 of
773 the General Laws.

774 “Long-term contract”, a contract for a period of 15 to 20 years for offshore wind energy
775 generation under section 83C or for clean energy generation under section 83D.

776 “New Class I renewable portfolio standard eligible resources”, Class I renewable energy
777 generating sources under section 11F of chapter 25A of the General Laws that have not
778 commenced commercial operation prior to the date of execution of a long-term contract or that
779 represent a net increase from incremental new generating capacity at an existing facility after the
780 date of execution of a long-term contract.

781 “Offshore wind developer”, a provider of electricity developed from an offshore wind
782 energy generation project.

783 “Offshore wind energy generation”, offshore electric generating resources derived from
784 wind that: (i) are Class I renewable energy generating sources under section 11F of chapter 25A
785 of the General Laws; and (ii) have a commercial operations date on or after January 1, 2018 that
786 has been verified by the department of energy resources.

787 Section 83C. (a) Not later than April 1, 2017, every distribution company shall, with the
788 department of energy resources, jointly and competitively solicit proposals for offshore wind
789 energy generation. If the department of energy resources, in consultation with the independent

790 evaluator under subsection (e), determines that any reasonable proposal has been received, the
791 distribution companies shall enter into cost-effective long-term contracts, subject to the approval
792 of the department of public utilities, to facilitate the financing of offshore wind energy
793 generation resources and the reaching of the commonwealth's emission reduction targets and
794 goals under chapter 298 of the acts of 2008 and chapter 21N of the General Laws, apportioned
795 among the distribution companies under this section. Each subsequent solicitation shall seek
796 proposals of approximately 400 to 800 megawatts, inclusive, of aggregate nameplate capacity.

797 (b) The timetable and method of solicitation of long-term contracts shall be proposed
798 jointly by the distribution companies and the department of energy resources. The distribution
799 companies, in coordination with the department of energy resources, shall consult with the office
800 of the attorney general regarding the choice of solicitation methods. The department of energy
801 resources shall be a full participant in the execution and evaluation of all proposals. The
802 timetable and method shall be reviewed and approved by the department of public utilities. A
803 solicitation may be coordinated and issued jointly with other New England states or entities
804 designated by those states. The distribution companies shall conduct at least 3 competitive
805 solicitations through a staggered procurement schedule developed by the distribution companies
806 and the department of energy resources; provided, however, that the distribution companies shall
807 jointly enter into cost-effective long-term contracts for offshore wind energy generation equal to
808 approximately 4,000 megawatts of aggregate nameplate capacity not later than June 30, 2027.
809 The first solicitation shall seek proposals of approximately 400 megawatts of aggregate
810 nameplate capacity; provided, however, that subsequent solicitations shall occur within
811 approximately 24 months of a previous solicitation.; provided further, that the department of
812 energy resources may determine and require subsequent solicitations and procurements beyond

813 4,000 megawatt-hours if in the best interests of the commonwealth and to ensure compliance
814 with chapter 298 of the acts of 2008. If the department determines that additional solicitations are
815 necessary, it shall submit a report to the general court explaining its rationale and the general
816 court shall have 60 days to review the report and submit a response.

817 The department of public utilities shall not approve a long-term contract that results from
818 a subsequent solicitation and procurement period if the levelized cost of energy or the net present
819 value of the contract price per megawatt hour in constant dollars that results from that
820 subsequent procurement is greater than or equal to the levelized cost of energy or net present
821 value of the contract price per megawatt hour in constant dollars that resulted from the previous
822 procurement. The department of public utilities shall make a final approved long-term contract
823 price public. For the purposes of this section, “levelized cost of energy” shall include
824 transmission and renewable energy certificates.

825 The department of energy resources shall give preference to a subsequent proposal in
826 which the net present value of the contract price per megawatt hour that results from the
827 subsequent procurement, plus associated total transmission costs, has decreased by at least 15 per
828 cent from the net present value of the contract price, plus associated total transmission costs, that
829 resulted from the previous procurement.

830 The department of energy resources shall require that bidding offshore wind developers
831 demonstrate that the bidding offshore wind developers have the ability and financial means to
832 complete their proposed project. If the department of energy resources determines that no
833 reasonable proposal was received in response to a solicitation, the department may terminate the
834 solicitation. If the department, in consultation with the independent evaluator, deems all

835 proposals under a solicitation to be unreasonable, it shall issue public, written findings and the
836 independent evaluator shall review the findings and issue an independent assessment of the
837 decision by the department of energy resources to deem every proposal unreasonable. If the
838 department, in consultation with the independent evaluator, deems all proposals under a
839 solicitation to be unreasonable, it shall issue public, written findings and the independent
840 evaluator shall review the findings and issue an independent assessment of the decision by the
841 department of energy resources to deem every proposal unreasonable. The department of energy
842 resources may reconsider any proposal based upon a recommendation from the independent
843 evaluator.

844 (c) In developing proposed long-term contracts, the distribution companies shall consider
845 long-term contracts for renewable energy certificates for energy and for a combination of both
846 renewable energy certificates and energy. Notwithstanding a determination from the department
847 of energy resources that a proposal is reasonable, a distribution company may decline to pursue a
848 proposal if the proposal's terms and conditions would require the contract obligation to place an
849 unreasonable burden on the distribution company's balance sheet; provided, however, that the
850 distribution company shall take all reasonable actions to structure the contracts, pricing or
851 administration of the products purchased under this section in order to prevent or mitigate an
852 impact on the balance sheet or income statement of the distribution company or its parent
853 company, subject to the approval of the department of public utilities; provided further, that
854 mitigation shall not increase costs to ratepayers. If a distribution company deems all proposals to
855 be unreasonable, the distribution company shall, within 20 days of the date of its decision,
856 submit a filing to the department of public utilities. The filing shall include, in the form and
857 detail prescribed by the department of public utilities, documentation supporting the distribution

858 company's decision to decline the proposals. Following a distribution company's filing, and
859 within 4 months of the date of the filing, the department of public utilities shall approve or reject
860 the distribution company's decision and may order the distribution company to reconsider any
861 proposal. If distribution companies are unable to agree on a winning bid following a solicitation
862 under this section, the matter shall be submitted to the department of energy resources which
863 shall, in consultation with the independent evaluator, issue a final, binding determination of the
864 winning bid. The department of energy resources may require additional solicitations to fulfill
865 the requirements of this section.

866 (d)(1) The department of public utilities shall promulgate regulations consistent with this
867 section. The regulations shall: (i) allow offshore wind developers of offshore wind energy
868 generation to submit proposals that are consistent with this section for long-term contracts; (ii)
869 require that a proposed long-term contract executed by the distribution companies under a
870 proposal be filed with and approved by the department of public utilities before becoming
871 effective; (iii) require transmission costs to be incorporated into a proposal; (iv) after the
872 approval by the department of public utilities of a long-term contract, require an offshore wind
873 developer to proceed with reasonable promptness and diligence to provide offshore wind energy
874 resources; (v) allow offshore wind energy generation resources to be paired with energy storage
875 systems; and (vi) require that offshore wind energy generating resources to be used by a
876 developer under the proposal: (A) provide enhanced electricity reliability; (B) are cost effective
877 to electric ratepayers in the commonwealth over the term of the contract, taking into
878 consideration costs and benefits, including economic and environmental benefits and existing or
879 reasonably anticipated federal and state environmental requirements; (C) avoid line loss and
880 mitigate transmission costs to the extent possible and ensure that transmission cost overruns, if

881 any, are not borne by ratepayers; (D) moderate system peak load requirements; (E) adequately
882 demonstrate project viability in a commercially reasonable timeframe; (F) avoid, minimize and
883 mitigate environmental impacts; and (G) promote additional employment and economic
884 development. The department of energy resources shall give preference to proposals that
885 demonstrate a benefit to low-income ratepayers in the commonwealth, without adding cost to the
886 project.

887 (2) The department of energy resources shall, subject to agreement with an offshore wind
888 developer, require an offshore wind developer that has executed a final long-term contract
889 approved by the department of public utilities to provide data to the department of energy
890 resources. The data shall be provided to the department not more than once every 6 months. The
891 offshore wind developer providing the data shall agree, as a condition of submitting a proposal
892 under this section, that it will in good faith pursue a data agreement with the department of
893 energy resources. The agreement shall provide that the department of energy resources shall not
894 disclose data or other confidential or proprietary information provided by the offshore wind
895 developer to the department of energy resources under the data agreement and shall otherwise
896 protect the data for an agreed upon period of time which shall not be more than 24 months after
897 the date on which the data was collected. For the purposes of this paragraph, “data” shall mean
898 primary data observations and metadata collected and stored by or on behalf of the offshore wind
899 developer in relation to investigation modeling and monitoring of the development site or, if
900 mutually agreed upon, the surrounding area related to meteorological, geotechnical,
901 oceanographic or other environmental characteristics as determined by the department of energy
902 resources.

903 (e) The department of energy resources and the attorney general shall jointly select, and
904 the department of energy resources shall contract with, an independent evaluator to monitor,
905 participate in and report on the solicitation and bid selection process in order to assist the
906 department of energy resources in determining if a received proposal is reasonable and to assist
907 the department of public utilities in its consideration of long-term contracts filed for approval. To
908 ensure an open, fair and transparent solicitation and bid selection process that is not unduly
909 influenced by an affiliated company, the independent evaluator shall: (i) be paid an equal amount
910 and in full by each offshore wind developer submitting a proposal for the solicitation; (ii) issue a
911 report to the department of public utilities, upon its review of the timetable and method of
912 solicitation, that analyzes the proposed solicitation process and includes recommendations, if
913 any, for improving the process; and (iii) upon the opening of an investigation by the department
914 of public utilities into a proposed long-term contract for a winning bid proposal, file a report with
915 the department of public utilities that summarizes and analyzes the solicitation and the bid
916 selection process and provide its independent assessment of whether all bids were evaluated in a
917 fair and objective manner. The independent evaluator shall also issue an assessment of whether a
918 winning bid proposal complies with the regulations under subsection (d). The independent
919 evaluator shall have access to the information and data related to the competitive solicitation and
920 bid selection process that is necessary to fulfill the purposes of this subsection; provided,
921 however, that the independent evaluator shall ensure that proprietary information shall remain
922 confidential. The department of public utilities shall consider the findings of the independent
923 evaluator and may adopt recommendations made by the independent evaluator as a condition for
924 approval. If the independent evaluator concludes in the findings that the solicitation and bid

925 selection of a long-term contract was not fair and objective and that the process was substantially
926 prejudiced as a result, the department of public utilities shall reject the bid proposal.

927 (f) A proposed long-term contract shall be subject to the review and approval of the
928 department of public utilities. As part of its approval process, the department of public utilities
929 shall consider the attorney general's recommendations, which shall be submitted to the
930 department of public utilities within 45 days following the filing of the proposed contract with
931 the department of public utilities. The department of public utilities shall consider the potential
932 costs and benefits of the proposed contract and shall approve a proposed contract if it finds that
933 the proposed contract is a cost-effective mechanism for procuring reliable renewable energy on a
934 long-term basis. The department of public utilities' consideration of potential costs and benefits
935 shall include consideration of non-price economic and environmental benefits, existing or
936 reasonably anticipated federal and state environmental requirements, other factors outlined in
937 this section and the commonwealth's goals under chapter 298 of the acts of 2008 and chapter
938 21N of the General Laws. A distribution company shall be entitled to cost recovery of payments
939 made under a long-term contract approved under this section.

940 (g) The distribution companies shall each enter into a contract with the winning bidders
941 for their apportioned share of the market products being purchased from the project. The
942 apportioned share shall be calculated and based upon the total energy demand from the
943 distribution customers in each service territory of the distribution companies.

944 (h) A distribution company shall sell energy and capacity purchased under a long-term
945 contract in the wholesale market through a competitive bid process in order to minimize the costs
946 to ratepayers under the contract. A distribution company may elect to retain renewable energy

947 certificates to meet the applicable annual renewable portfolio standard requirements under said
948 section 11F of said chapter 25A. If renewable energy certificates are not so used, distribution
949 companies shall sell the purchased renewable energy certificates through a competitive bid
950 process to minimize the costs to ratepayers under the contract; provided, however, that the
951 department of energy resources shall conduct periodic reviews to determine the impact on the
952 energy and renewable energy certificate markets of the disposition of energy and renewable
953 energy certificates under this section. The department may issue reports recommending
954 legislative changes if it determines that said disposition of energy and renewable energy
955 certificates is adversely affecting the energy and renewable energy certificate markets.

956 (i) If a distribution company sells the purchased energy into the wholesale spot market
957 and sells the renewable energy certificates through a competitive bid process, the distribution
958 company shall net the cost of payments made to projects under the long-term contracts against
959 the proceeds obtained from the sale of energy and renewable energy certificates, and the
960 difference shall be credited or charged to distribution customers through a uniform fully
961 reconciling annual factor in distribution rates, subject to review and approval of the department
962 of public utilities.

963 (j) A long-term contract procured under this section shall utilize an appropriate tracking
964 system to ensure a unit specific accounting of the delivery of clean energy, to enable the
965 department of environmental protection in consultation with the department of energy resources,
966 to accurately measure progress in achieving the commonwealth's goals under chapter 298 of the
967 acts of 2008 or chapter 21N of the General Laws; provided, however, that for purposes of this
968 section, a long-term contract procured under this section shall also require an accounting of life-

969 cycle emissions from the clean energy generation resource, to be reported to the department of
970 environmental protection on an annual basis.

971 (k) The department of energy resources and the department of public utilities may jointly
972 develop requirements for a bond or other security to ensure performance with the requirements
973 under this section.

974 (l) The department of energy resources may promulgate regulations that are necessary to
975 implement this section.

976 (m) If this section is subjected to a legal challenge, the department of public utilities may
977 suspend the applicability of the challenged provision during the pendency of the action until a
978 final resolution, including any appeals, is obtained and shall issue an order and take other action
979 that is necessary to ensure that the provisions that are not the subject of the challenge are
980 implemented expeditiously to achieve the public purposes of this section.

981 Section 83D. (a) Not later than April 1, 2017, every distribution company shall jointly
982 and competitively solicit proposals for clean energy generation with the department of energy
983 resources. If the department of energy resources, in consultation with the independent evaluator
984 under subsection (e), determines that a reasonable proposal has been received, the distribution
985 companies shall enter into cost effective long-term contracts, subject to the approval of the
986 department of public utilities, to facilitate reaching the commonwealth's emission reduction
987 targets and goals under chapter 298 of the acts of 2008 or chapter 21N of the General Laws,
988 apportioned among the distribution companies under this section.

989 (b) The timetable and method for solicitation of long-term contracts shall be proposed
990 jointly by the distribution companies and the department of energy resources. The distribution

991 companies, in coordination with the department of energy resources, shall consult with the
992 attorney general's office regarding the choice of solicitation method. The department of energy
993 resources shall be a full participant in the execution and evaluation of the proposals. The
994 timetable and method for solicitation shall be reviewed and approved by the department of public
995 utilities. A solicitation may be coordinated and issued jointly with other New England states or
996 entities designated by those states. The distribution companies shall conduct 1 or more
997 competitive solicitations through a schedule or staggered procurement schedule developed by the
998 distribution companies and the department of energy resources; provided, however, that the
999 distribution companies shall enter into cost-effective long-term contracts for clean energy
1000 generation for an annual amount of electricity of at least 12,450,000 megawatt-hours by
1001 December 31, 2018; provided further, that the 12,450,000 megawatt-hours shall be in
1002 commercial operation by December 31, 2020; and provided further, that the department of
1003 energy resources may determine and require subsequent solicitations and procurements beyond
1004 12,450,000 megawatt-hours if in the best interests of the commonwealth and to ensure
1005 compliance with chapter 298 of the acts of 2008. If the department determines that additional
1006 solicitations are necessary, it shall submit a report to the general court explaining its rationale
1007 and the general court shall have 60 days to review the report and submit a response..

1008 If the department of energy resources determines that no reasonable proposal was
1009 received in response to a solicitation, the department may terminate the solicitation. If the
1010 department of energy resources, in consultation with the independent evaluator, deems all
1011 proposals under a solicitation to be unreasonable, it shall issue public, written findings and the
1012 independent evaluator shall review the findings and issue an independent assessment of the
1013 decision by the department of energy resources to deem the proposals unreasonable. The

1014 department of energy resources may reconsider any proposal based upon a recommendation from
1015 the independent evaluator.

1016 The department of energy resources shall give preference to proposals that include both
1017 hydroelectric generation and new Class 1 eligible resources and give preference to proposals that
1018 include firm service.

1019 (c) In developing proposed long-term contracts, the distribution companies shall consider
1020 long-term contracts for renewable energy certificates for energy and for a combination of both
1021 renewable energy certificates and energy, if applicable. A distribution company may decline to
1022 to pursue a proposal if the proposal's terms and conditions would require the contract obligation
1023 to place an unreasonable burden on the distribution company's balance sheet; provided, however,
1024 that the distribution company shall take all reasonable actions to structure the contracts, pricing
1025 or administration of the products purchased under this section in order to prevent or mitigate
1026 impacts on the balance sheet or income statement of the distribution company or its parent
1027 company, subject to the approval of the department of public utilities; provided further, that the
1028 mitigation shall not increase costs to ratepayers. If a distribution company deems all proposals to
1029 be unreasonable, the distribution company shall, within 20 days of the date of its decision,
1030 submit a filing to the department of public utilities. The filing shall include, in the form and
1031 detail prescribed by the department of public utilities, documentation supporting the distribution
1032 company's decision to decline the proposals. Following a distribution company's filing, and
1033 within 4 months of the date of the filing, the department of public utilities shall approve or reject
1034 the distribution company's decision and may order the distribution company to reconsider any
1035 proposal. If distribution companies are unable to agree on a winning bid under a solicitation
1036 under this section, the matter shall be submitted to the department of energy resources which

1037 shall, in consultation with the independent evaluator, issue a final, binding determination of the
1038 winning bid. The department of energy resources may require additional solicitations to fulfill
1039 the requirements of this section.

1040 (d) The department of public utilities shall promulgate regulations consistent with this
1041 section. The regulations shall: (i) allow developers of clean energy generation resources to
1042 submit proposals that are consistent with this section for long-term contracts; (ii) require that
1043 contracts executed by the distribution companies under the proposals are filed with, and
1044 approved by, the department of public utilities before they become effective; (iii) require
1045 transmission costs to be incorporated into a proposal, whether the costs are a part of the bid price
1046 or related to the delivery of the assigned energy via a federally-regulated transmission tariff;
1047 provided, however, that the department of public utilities may authorize or require the relevant
1048 parties to seek recovery of the transmission costs of the project through federal transmission
1049 rates, consistent with policies and tariffs of the Federal Energy Regulatory Commission, to the
1050 extent the department of public utilities finds that recovery is in the public interest; (iv) allow
1051 long-term contracts for clean energy generation resources to be paired with energy storage
1052 systems; (v) after the approval by the department of public utilities of a long-term contract,
1053 require a developer to proceed with reasonable promptness and diligence to provide clean energy
1054 generation resources; and (vi) require that the clean energy resources to be used by a developer
1055 under the proposal: (A) provide enhanced electricity reliability; (B) moderate system peak load
1056 requirements including, to the extent that projects include hydroelectric generation, by providing
1057 maximum output during winter peak pricing period; (C) are cost effective to electric ratepayers
1058 in the commonwealth over the term of the contract by providing reliability and economic and
1059 environmental benefits that outweigh costs; (D) avoid line loss and mitigate transmission costs to

1060 the extent possible and ensure that transmission cost overruns, if any, are not borne by
1061 ratepayers; (E) adequately demonstrate project viability in a commercially reasonable timeframe;
1062 (F) avoid, minimize and mitigate environmental impacts; and (G) promote additional
1063 employment and economic development. The department of energy resources shall give
1064 preference to proposals that: include both hydroelectric generation and new Class 1 eligible
1065 resources; include firm service; and demonstrate a benefit to low-income ratepayers in the
1066 commonwealth, without adding cost to the project.

1067 (e) The department of energy resources and the attorney general shall jointly select, and
1068 the department of energy resources shall contract with, an independent evaluator to monitor,
1069 participate in and report on the solicitation and bid selection process in order to assist the
1070 department of energy resources in determining if a received proposal is reasonable and to assist
1071 the department of public utilities in its consideration of resulting long-term contracts filed for
1072 approval. To ensure an open, fair and transparent solicitation and bid selection process that is not
1073 unduly influenced by an affiliated company, the independent evaluator shall: (i) be paid an equal
1074 amount and in full by each clean energy generation developer submitting a proposal for the
1075 solicitation; (ii) issue a report to the department of public utilities, upon its review of the
1076 timetable and method of solicitation, that analyzes the proposed solicitation process and includes
1077 recommendations for improving the process, if any; and (iii) upon the opening of an
1078 investigation by the department of public utilities into a proposed long-term contract for a long-
1079 term contract for a winning bid proposal, file a report with the department of public utilities that
1080 summarizes and analyzes the solicitation and the bid selection process and provide its
1081 independent assessment of whether every bid was evaluated in a fair and objective manner. The
1082 independent evaluator shall also issue its assessment of whether a winning bid proposal complies

1083 with the regulations under subsection (d). The independent evaluator shall have access to the
1084 information and data related to the competitive solicitation and bid selection process that is
1085 necessary to fulfill the purposes of this subsection; provided, however, the independent evaluator
1086 shall ensure that proprietary information remains confidential. The department of public utilities
1087 shall consider the findings of the independent evaluator and may adopt recommendations made
1088 by the independent evaluator as a condition for approval. If the independent evaluator concludes
1089 in the findings that the solicitation and bid selection of a long-term contract was not fair and
1090 objective and that the process was substantially prejudiced as a result, the department of public
1091 utilities shall reject the bid proposal.

1092 (f) A proposed long-term contract shall be subject to the review and approval of the
1093 department of public utilities. As part of its approval process, the department of public utilities
1094 shall consider the attorney general's recommendations, which shall be submitted to the
1095 department of public utilities within 45 days following the filing of the proposed contract with
1096 the department of public utilities. The department of public utilities shall consider the potential
1097 costs and benefits of the proposed contract and shall approve a proposed contract if it finds that
1098 the proposed contract is a cost-effective mechanism for procuring low cost clean energy on a
1099 long-term basis. The department of public utilities' consideration of potential costs and benefits
1100 shall include the factors outlined in this section and the commonwealth's goals under chapter 298
1101 of the acts of 2008 and chapter 21N of the General Laws. A distribution company shall be
1102 entitled to cost recovery of payments made under a long-term contract approved under this
1103 section.

1104 (g) The distribution companies shall each enter into a contract with the winning bidders
1105 for their apportioned share of the market products being purchased from the project. The

1106 apportioned share shall be calculated and based upon the total energy demand from the
1107 distribution customers in each service territory of the distribution companies.

1108 (h) A distribution company shall sell energy and capacity purchased under long-term
1109 contracts or delivery commitments in the wholesale market through a competitive bid process in
1110 order to minimize the costs to ratepayers under the contract. A distribution company may elect to
1111 retain renewable energy certificates to meet the applicable annual RPS requirements under said
1112 section 11F of said chapter 25A. If the renewable energy certificates are not so used, distribution
1113 companies shall sell the purchased renewable energy certificates attributed to new Class I RPS
1114 eligible resources through a competitive bid process to minimize the costs to ratepayers under the
1115 contract; provided, however, that a distribution company shall retain renewable energy
1116 certificates that are not attributed to Class I RPS eligible resources. The department of energy
1117 resources shall conduct periodic reviews to determine the impact on the energy and renewable
1118 energy certificate markets of the disposition of energy and renewable energy certificates under
1119 this section. The department may issue reports recommending legislative changes if it determines
1120 that the disposition of energy and renewable energy certificates is adversely affecting the energy
1121 and renewable energy certificate markets.

1122 (i) If a distribution company sells the purchased energy into the wholesale spot market
1123 and sells the renewable energy certificates through a competitive bid process, the distribution
1124 company shall net the cost of payments made to projects under the long-term contracts against
1125 the proceeds obtained from the sale of energy and renewable energy certificates, and the
1126 difference shall be credited or charged to distribution customers through a uniform fully
1127 reconciling annual factor in distribution rates, subject to review and approval of the department
1128 of public utilities.

1129 (j) A long-term contract procured under this section shall utilize an appropriate tracking
1130 system to ensure a unit specific accounting of the delivery of clean energy, to enable the
1131 department of environmental protection in consultation with the department of energy resources,
1132 to accurately measure progress in achieving the commonwealth's goals under chapter 298 of the
1133 acts of 2008 or chapter 21N of the General Laws; provided, however, that for purposes of this
1134 section, a long-term contract procured under this section shall also require an accounting of life-
1135 cycle emissions from the clean energy generation resource, to be reported to the department of
1136 environmental protection on an annual basis.

1137 (k) The department of energy resources and the department of public utilities may jointly
1138 develop requirements for a bond or other security to ensure performance with requirements
1139 under this section.

1140 (l) The department of energy resources may promulgate regulations that are necessary to
1141 implement this section.

1142 (m) If this section is subject to a legal challenge, the department of public utilities may
1143 suspend the applicability of the challenged provision during the pendency of the action until a
1144 final resolution, including any appeals, is obtained and shall issue an order and take other action
1145 that is necessary to ensure that the provisions that are not the subject of the challenge are
1146 implemented expeditiously to achieve the public purposes of this section.

1147 SECTION 24. Section 16 of chapter 298 of the acts of 2008 is hereby amended by
1148 striking out, in lines 3 and 4, the words “, and shall expire on December 31, 2020.

1149 SECTION 25. In designing the energy rating and labeling system under section 11G½ of
1150 chapter 25A of the General Laws, the department of energy resources shall consider the energy

1151 rating and labeling systems used as part of the Mass Save Home MPG program, the RESNET
1152 home energy rating system and the United States Department of Energy's home energy score in
1153 addition to other energy rating and labeling systems that are used in other jurisdictions that the
1154 department determines appropriate.

1155 The department shall finalize the energy rating and labeling system for residential
1156 dwellings not later than December 15, 2018 and shall begin implementing the system not later
1157 than June 30, 2019. The department shall also provide recommendations for the implementation
1158 of an energy rating and labeling system for residential rental property transactions not later than
1159 June 30, 2019.

1160 SECTION 26. For the Class I renewable energy generating source requirement that
1161 applies to retail electricity suppliers selling electricity to end-use customers, the department of
1162 energy resources shall not impose any incremental obligations under clauses (3) and (4) of
1163 subsection (a) of section 11F of chapter 25A of the General Laws on the kilowatt-hour sales to
1164 end-use customers in the commonwealth resulting from a contract executed before January 1,
1165 2017 if the retail electric supplier provides the department of energy resources with satisfactory
1166 documentation of the terms of the contract including, but not limited to, the execution and
1167 expiration dates of the contract and the annual volume of kilowatt-hour sales supplied.

1168 SECTION 27. The secretary of energy and environmental affairs shall develop and
1169 support a regional comprehensive climate change adaptation management action plan grant
1170 program that shall consist of financial assistance to regional planning agencies to develop and
1171 implement comprehensive cost-effective adaptation management action plans at the regional
1172 level of government. Funds shall be expended from item 2000-7070 of section 2A of chapter 286

1173 of the acts of 2014 for the grant program and the department of energy resources may make
1174 available monies from amounts collected by the Department of Energy Resources Credit Trust
1175 Fund under 13 of chapter 25A of the General Laws for the grant program. A regional
1176 comprehensive adaptation management action plan shall include, but not be limited to: (i)
1177 technical planning guidance for adaptive municipalities through a step-by-step process for
1178 regional climate vulnerability assessment and adaptation strategy development; (ii) development
1179 of a definition of regional impacts by supporting municipalities conducting climate vulnerability
1180 assessments; (iii) a demonstrated understanding of regional characteristics, including regional
1181 environmental and socioeconomic characteristics; and (iv) prioritization of protecting identified
1182 vulnerable inland and coastal locations not yet built upon. The grants shall advance statewide,
1183 regional and local efforts to adapt land use, zoning, infrastructure, policies and programs to
1184 reduce the vulnerability of the built and natural environment to changing environmental
1185 conditions as a result of climate change and for the development and implementation of an
1186 outreach and education program in low income and urban areas about climate change and the
1187 effects of climate change.

1188 SECTION 28. The executive office of energy and environmental affairs, in consultation
1189 with the division of capital asset management and maintenance, may acquire by purchase from
1190 willing sellers land abutting or adjacent to areas subject to the ebb and flow of the tide or on
1191 barrier beaches or in velocity zones of flood plain areas, on which structures have been
1192 substantially and repeatedly damaged by severe weather, for conservation and recreation
1193 purposes, including those rejected by the Pre-Disaster Mitigation Grant Program and the Hazard
1194 Mitigation Grant Program administered by the United States Federal Emergency Management
1195 Agency.

1196 Prior to the acquisition of land under this section, the executive office shall develop a
1197 conservation and recreation management plan and a coastal erosion mitigation and management
1198 plan for the land after consultation with the municipality in which the land is located. The plan
1199 shall set forth the priority, description and location of land to be acquired and any land
1200 management agreement reached between the agency and municipality that provides for local
1201 responsibility to carry out the development and management of the property. Land acquired
1202 pursuant to this section shall contain a deed restriction stating that the land shall be used for
1203 conservation and recreation purposes only.

1204 No land shall be acquired under this section until after a public hearing has been held by
1205 the executive office in the municipality in which the land is located to consider the management
1206 plan. The executive office shall notify the mayor and city council or other municipal legislative
1207 body in a city, or the city manager and the municipal legislative body in a Plan D or Plan E form
1208 of government, or the board of selectmen, planning board and conservation commission, if any,
1209 or other municipal legislative body, of a town not later than 10 days prior to a hearing.

1210 If the executive office deems it necessary to make appraisals, surveys, soundings,
1211 borings, test pits or other related examinations to obtain information to carry out this section, the
1212 executive office or its authorized agents or employees may, after due notice by registered mail,
1213 enter upon lands, water and premises, not including buildings, to make the appraisals, surveys,
1214 soundings, borings, test pits or other related examinations and the entry shall not be a trespass.
1215 The executive office shall provide reimbursement for an injury or actual damages resulting to the
1216 lands, waters and premises caused by an act of the executive office or its authorized agents or
1217 employees and shall, so far as possible, restore the lands to the same condition as prior to making
1218 the appraisals, surveys, soundings, borings, test pits or other related examinations.

1219 SECTION 29. (a) The executive office of energy and environmental affairs, acting for
1220 and on behalf of the commonwealth, may lease to a municipality or nonprofit organization, on a
1221 form approved by the attorney general, for not more than 25 years, certain property acquired by
1222 the commonwealth pursuant to section 18B or by the United States Federal Emergency
1223 Management Agency under 42 U.S.C. § 4001 et seq., as amended, for use as conservation and
1224 recreation areas. A lease shall be in the form and contain the provisions as determined by the
1225 secretary of energy and environmental affairs, in consultation with the division of capital asset
1226 management and maintenance, including the terms and conditions as necessary to comply with
1227 laws relative to the protection of barrier beaches. Land shall be leased upon the express
1228 conditions that the land shall be used for conservation and recreation purposes only and that no
1229 permanent structures shall be erected and a reversionary clause that requires the lease to be
1230 terminated if the leased land is used in violation of a law relative to barrier beaches or condition
1231 of the lease shall be included.

1232 (b) In consideration for the granting of a lease authorized in subsection (a), the lessee
1233 municipality or nonprofit organization shall agree to maintain the acquired land as a clean, safe
1234 and orderly conservation or recreation area.

1235 SECTION 30. Pursuant to its authority under section 40 of chapter 131 of the General
1236 Laws, the commissioner of environmental protection shall promulgate rules regulating the
1237 dredging, filling or altering of land subject to coastal storm flowage.

1238 SECTION 31. The executive office of energy and environmental affairs and the
1239 executive office of public safety and security may expend such sums as may be available from an
1240 account, appropriation or fund available to the respective executive offices or to an agency

1241 within those executive offices to carry out chapter 21P of the General Laws, including expenses
1242 in connection with the department's responsibilities under said chapter 21P and the cost of
1243 planning and for the development, redevelopment or improvement of land under said chapter
1244 21P.

1245 SECTION 32. Notwithstanding any general or special law to the contrary, the executive
1246 office of energy and environmental affairs shall develop a pilot program proposal to field test
1247 and deploy superconducting or solid state fault current limiter technologies to maximize
1248 reliability and capacity.

1249 The executive office of energy and environmental affairs shall submit to the clerks of the
1250 senate and house of representatives and to the joint committee on telecommunications, utilities
1251 and energy the details of the pilot program and any legislative recommendations not later than 6
1252 months after the effective date of this act.

1253 SECTION 33. If interoperability standards have not been adopted by a national standards
1254 organization by January 1, 2018, the department of energy resources may adopt interoperability
1255 billing standards for network roaming payment methods for electric vehicle charging stations. If
1256 the department of energy resources adopts interoperability billing standards for electric vehicle
1257 charging stations, electric vehicle charging stations that require payment shall meet those
1258 standards within 1 year. The standards adopted shall consider other governmental or industry-
1259 developed interoperability billing standards and may adopt interoperability billing standards
1260 promulgated by an outside authoritative body.

1261 SECTION 34. There shall be an energy efficiency task force to develop
1262 recommendations and propose statutory changes for the creation of a successor energy efficiency

1263 program or improvements to be made to the current energy efficiency program and such program
1264 or improvements shall be implemented beginning in 2018 at the conclusion of the current 3-year,
1265 statewide energy efficiency plan developed pursuant to section 21 of chapter 25 of the General
1266 Laws. In making its recommendations, the task force shall consider: (i) the successes, challenges
1267 and shortcomings of the current program design; (ii) the role of the program administrators; (iii)
1268 the designation or creation of a single entity, other than a gas or electric company or municipal
1269 aggregator, to run the program; (iv) additional ways to increase market competition; (v)
1270 alternative funding mechanisms for gas and electric energy efficiency; (vi) the identification of
1271 targets for energy efficiency customer participation and cost effective system load reduction; and
1272 (vii) alternative program design and best practices implemented in other states and countries. The
1273 task force shall also consider the cost impact upon the ratepayers.

1274 The task force shall consist of the following members or their designees: the
1275 commissioner of the department of energy resources, who shall serve as chair; the attorney
1276 general; the chair of the department of public utilities; 2 members of the house of representatives,
1277 1 of whom shall be appointed by the minority leader; 2 members of the senate, 1 of whom shall
1278 be appointed by the minority leader; a representative from the low-income weatherization and
1279 fuel assistance program network; a representative from the Northeast Energy Efficiency
1280 Partnerships, Inc.; and 8 members who shall be appointed by the governor, 1 of whom shall be a
1281 representative of the business community, which may include large commercial and industrial
1282 end users, 1 of whom shall be a representative of an energy-efficiency business, 1 of whom shall
1283 be a representative of an electric distribution company, 1 of whom shall be a representative of a
1284 natural gas distribution company, 1 of whom shall be a representative of a municipal aggregator
1285 with a certified energy-efficiency plan pursuant to subsection (b) of section 134 of chapter 164 of

1286 the General Laws, 1 of whom shall be a representative of an energy services company, 1 of
1287 whom shall be a representative of environmental interests and 1 of whom shall be a
1288 representative of labor interests.

1289 The task force shall convene its first meeting by October 1, 2018. The task force may
1290 retain the assistance of experts to conduct research or facilitate the task force process. The task
1291 force shall report on its recommendations, which shall include drafts of legislation, to the senate
1292 and house chairs of the joint committee on telecommunications, utilities and energy by June 1,
1293 2017.

1294 SECTION 35. There shall be a renewable energy infrastructure financing task force
1295 which shall examine industry gaps in financing clean and renewable energy infrastructure in the
1296 commonwealth.

1297 The task force shall consist of the following members: the secretary of energy and
1298 environmental affairs or a designee, who shall serve as chair; the senate chair of the joint
1299 committee on telecommunications, utilities and energy or a designee; the house chair of the joint
1300 committee on telecommunications, utilities and energy or a designee; the commissioner of the
1301 department of energy resources or a designee; the chair of the department of public utilities or a
1302 designee; the president of the Massachusetts clean energy technology center or a designee; the
1303 president of Massachusetts Development Finance Agency or a designee; and 5 persons appointed
1304 by the governor who shall each have expertise in at least 1 of the following subjects: renewable
1305 energy financing, management of clean energy companies or the making or advancing of clean
1306 energy policy.

1307 The task force shall convene its first meeting not later than September 1, 2018. It shall
1308 research and identify gaps in renewable energy infrastructure financing and shall develop a plan
1309 to reduce those gaps, which may include recommendations to stimulate private capital
1310 investment, develop bridge financing mechanisms, encourage community renewable energy
1311 infrastructure, establish a loan program or finance entity, advance public and private partnerships
1312 and other partnerships for financing renewable energy infrastructure that will help meet the
1313 targets established in chapter 298 of the acts of 2008 and chapter 21N of the General Laws. The
1314 plan shall include cost estimates and recommend potential funding sources.

1315 The task force shall file the plan along with recommended regulatory changes and draft
1316 legislation with the governor, the secretary of energy and environmental affairs, the clerks of the
1317 senate and house of representatives, the chairs of the joint committee on telecommunications,
1318 utilities and energy and the chairs of the senate and house committees on ways and means not
1319 later than January 1, 2019.

1320 SECTION 36. The department of energy resources, in consultation with the department
1321 of public utilities, shall conduct a study on the need to modernize the electric grid with the goal
1322 of reducing demand, reducing energy costs to ratepayers, integrating distributed energy
1323 resources, reducing carbon emissions and enhancing reliability and resiliency. As part of the
1324 study, the department shall consider alternative regulatory, incentive and ratemaking structures
1325 and market design, including the creation of an open market for third-party services, to achieve
1326 these goals. The department shall also consider ways to enhance consumer knowledge regarding
1327 energy use and provide energy customers with tools to support effective management of their
1328 energy bills.

1329 As part of the study, the department shall engage in an extensive, open and transparent
1330 stakeholder process. Stakeholders shall consist of, but not be limited to: the attorney general in
1331 the role of the ratepayer advocate or a designee; 2 members of the senate, 1 of whom shall be
1332 appointed by the minority leader; 2 members of the house of representatives, 1 of whom shall be
1333 appointed by the minority leader; an appointee from the Massachusetts Municipal Association,
1334 Inc.; an appointee from the Associated Industries of Massachusetts, Inc.; an appointee from the
1335 National Consumer Law Center, Inc.; and an appointee from the Northeast Clean Energy
1336 Council, Inc.; and an appointee representing environmental interests. The department shall
1337 conduct at least 2 public hearings in geographically diverse locations and shall submit a report,
1338 along with proposed statutory and regulatory changes, to the clerks of the senate and house of
1339 representatives and the house and senate chairs of the joint committee on telecommunications,
1340 utilities and energy not later than October 1, 2019.

1341 SECTION 37. Chapter 164 of the General Laws is hereby amended by inserting after
1342 section 145, as appearing in the 2016 Official Edition, the following section:

1343 Section 146:

1344 (a) As used in this section, the following words shall, unless the context clearly requires
1345 otherwise, have the following meanings:

1346 (1) “Local energy resources,” distributed renewable generation facilities, energy
1347 efficiency, energy storage, electric vehicles, and demand response and load management
1348 technologies.

1349 (2) "Distributed renewable generation facility," a facility producing electrical energy
1350 from any source that qualifies as a renewable energy generating source under section 11F of
1351 chapter 25A and is interconnected to a distribution company.

1352 (3) "Board," the Grid Modernization Consumer Board.

1353 (b) The Department shall issue an order concluding the current Grid Modernization
1354 Proceedings (D.P.U. 15-120, 15-121 and 15-122) by December 31, 2017.

1355 (c) The Department shall commence a proceeding by no later than January 31, 2018 that
1356 establishes procedures for each distribution company of the commonwealth to create and file
1357 with the Department by October 31, 2019 its subsequent Grid Modernization Plan, as described
1358 in further detail in subsection (d).

1359 (1) This proceeding shall also establish specific metrics and related performance
1360 incentives to evaluate the progress of the distribution companies toward establishing a grid
1361 planning system to utilize and integrate local energy resources to meet customers' energy needs.
1362 Said metrics may include, but are not limited to: reducing the impact of outages, optimizing
1363 demand, integrating local energy resources, improving workforce and asset management, and
1364 electrification that results in lower greenhouse gas emissions and energy costs savings, after
1365 accounting for fuel switching;

1366 (2) This proceeding shall also create protections for low-income consumers including, but
1367 not limited to, remote shutoff protection and exemption from special cost recovery mechanisms.

1368 (d) Every 5 years, on or before April 1, each electric distribution company shall prepare a
1369 Grid Modernization Plan. Each plan shall comply with the requirements set forth by the

1370 Department in the proceeding described in subsection (c), or as modified by the Department, and
1371 shall be prepared in coordination with the Grid Modernization Consumer Board established by
1372 subsection (g). Each plan shall:

1373 (1) Evaluate locational benefits and costs of local energy resources currently located on
1374 the system, and identify optimal locations for local energy resources over the next 10 years. This
1375 evaluation shall be based on reductions or increases in local generation capacity and demand,
1376 avoided or increased investments in transmission and distribution infrastructure, safety benefits,
1377 reliability benefits, and any other savings the local energy resources provide to the electric grid
1378 or avoided costs to ratepayers;

1379 (2) Provide information about the interconnection of distributed renewable generation
1380 facilities in publicly accessible hosting capacity maps that are updated on a continual basis;

1381 (3) Propose or identify locational based incentives and other mechanisms for the
1382 deployment of cost-effective local energy resources that satisfy planning objectives;

1383 (4) Propose cost-effective methods of effectively coordinating existing programs,
1384 incentives, and tariffs to maximize the locational benefits and minimize the incremental costs of
1385 local energy resources;

1386 (5) Identify any additional spending by the distribution company necessary to integrate
1387 cost-effective local energy resources into distribution planning consistent with the goal of
1388 yielding net benefits to ratepayers;

1389 (6) Identify any additional barriers to the deployment of local energy resources;

1390 (e) Any distribution infrastructure necessary to accomplish the Grid Modernization Plan
1391 is eligible for pre-authorization by the Department, through a review of the company's proposed
1392 investments and cost estimates, as supported by the business case.

1393 (f) Each Grid Modernization Plan prepared under subsection (d) shall be submitted for
1394 approval and comment by the Grid Modernization Consumer Board every 5 years, on or before
1395 April 1.

1396 (1) The electric distribution companies shall provide any additional information requested
1397 by the Board that is relevant to the consideration of the Plan. The Board shall review the plan
1398 and any additional information and submit its approval or comments to the electric distribution
1399 companies not later than 3 months after the submission of the plan. The electric distribution
1400 companies may make any changes or revisions to reflect the input of the Board.

1401 (2) The electric distribution companies shall submit their plans, together with the Board's
1402 approval or comments and a statement of any unresolved issues, to the Department every 5
1403 years, on or before October 31. The Department shall consider the plans and shall provide an
1404 opportunity for interested parties to be heard in a public hearing.

1405 (3) Not later than 180 days after submission of a plan, the Department shall issue a
1406 decision on the plan which ensures that the electric distribution companies have satisfied the
1407 criteria set forth by the Department and shall approve, modify and approve, or reject and require
1408 the resubmission of the plan accordingly.

1409 (4) Each Grid Modernization Plan shall be in effect for 5 years.

1410 (g) There shall be a Grid Modernization Consumer Board to consist of the commissioner
1411 of the department of energy resources, who shall serve as chair, and 7 members including the
1412 attorney general, or his designee, the commissioner of the department of environmental
1413 protection, or his designee, and additional members appointed by the Department: 1 shall be a
1414 representative of residential consumers, 1 shall be a representative of low-income consumers, 1
1415 shall be a representative of the environmental community, 1 shall be a representative of the clean
1416 energy technology industry, and 1 shall be a representative of businesses, including large C& I
1417 end users. Interested parties shall apply to the Department for designation. Members shall serve
1418 for terms of 6 years and may be reappointed. There shall be 1 non-voting ex-officio member
1419 from each of the electric distribution companies.

1420 (1) The Board shall, as part of the approval process by the Department outlined in
1421 subsection (f), seek to maximize net economic benefits through use of distributed energy
1422 resources and achieve transmission, reliability, climate and environmental goals. The Board
1423 shall review and approve Grid Modernization Plans and budgets, and work with electric
1424 distribution companies in preparing resource assessments. Approval of Grid Modernization
1425 Plans and budgets shall require a two-thirds majority vote.

1426 (2) The Board may retain expert consultants, provided, however that such consultants
1427 shall not have any contractual relationship with an electric distribution company doing business
1428 in the commonwealth or any affiliate of such company. The Board shall annually submit to the
1429 Department a proposal regarding the level of funding required for the retention of expert
1430 consultants and reasonable administrative costs. The proposal shall be approved by the
1431 Department either as submitted or as modified by the Department. The Department shall
1432 allocate funds sufficient for these purposes from the Grid Modernization Plan budgets.

1433 (3) The electric distribution companies shall provide quarterly reports to the Board on the
1434 implementation of their respective plans. The reports shall include a description of progress in
1435 implementing the plan, an evaluation of the metrics identified by the Department in the
1436 proceeding described in subsection (c), and such other information or data as the Board shall
1437 determine. The Board shall provide an annual report to the department and the joint committee
1438 on telecommunications, utilities and energy on the implementation of the plan which includes
1439 descriptions of the programs, investments, cost-effectiveness, and savings and benefits during the
1440 previous year.

1441 SECTION 38. Section 69G of chapter 164, as appearing in the 2016 Official Edition, is
1442 hereby amended by inserting the following definition after “department”:

1443 “Distributed Renewable Generation Facility”, a facility producing electrical energy from
1444 any source that qualifies as a renewable energy generating source under section 11F of chapter
1445 25A and is interconnected to a distribution company.

1446 Also amended by adding the following definition after “generating facility”:

1447 “Infrastructure Resource Facility”, an electric transmission line, an electric distribution
1448 line, or an ancillary structure which is an integral part of the operation of a transmission or
1449 distribution line, that meets the following criteria: a) is estimated to cost more than \$1 million; b)
1450 is needed due to asset condition or load-growth; c) has a date of need at least 36 months in the
1451 future; d) has a need that can be addressed by load reductions of less than 20 percent of the
1452 relevant peak load in the area of the defined need; and e) such other criteria as the Board may
1453 determine. A line that is constructed, owned, and operated by a generator of electricity solely for
1454 the purpose of electrically and physically interconnecting the generator to the transmission

1455 system of a transmission and distribution utility shall not be considered an Infrastructure
1456 Resource Facility.

1457 Also amended by adding the following definition after “liquefied natural gas”:

1458 “Local Energy Resource Alternative”, the following methods used either individually or
1459 combined to meet or defer in whole or in severable part the need for a proposed Infrastructure
1460 Resource Facility: energy efficiency and conservation, energy storage system, electric vehicles,
1461 load management technologies, demand response, distributed renewable generation facilities,
1462 and other relevant technologies determined by the Board.

1463 SECTION 39. Chapter 164 of the General Laws is hereby amended by inserting after
1464 section 69J, as appearing in the 2016 Official Edition, the following section:

1465 Section 69J 1/6:

1466 (a) No applicant shall commence construction of an Infrastructure Resource Facility at a
1467 site unless a Determination of Wires has been approved by the board. In addition, no state
1468 agency shall issue a construction permit for any Infrastructure Resource Facility unless the
1469 Determination of Wires has been approved by the board and the facility conforms with such
1470 determination. Applications for Determination of Wires must be filed with the board no later
1471 than four years prior to date of in-service need.

1472 (b) A petition for a Determination of Wires shall include, in such form and detail as the
1473 board shall from time to time prescribe, the following information: (1) a description of the
1474 Infrastructure Resource Facility, site and surrounding areas; (2) an analysis of the need for the
1475 facility over its planned service life, both within and outside the commonwealth, including date

1476 of need for the facility; (3) a description of the alternatives to the facility, such as other methods
1477 of transmitting or storing energy, other site locations, other sources of electrical power or gas, a
1478 reduction of requirements through load management, or local energy resource alternatives; and
1479 (4) the results of an investigation by an independent 3rd party, which may be the Board or a
1480 contractor selected by the Board, of local energy resource alternatives that may, alone or
1481 collectively, address or defer part or all of the need identified in the application for the
1482 Infrastructure Resource Facility. The investigation must set forth the total projected costs and
1483 economic benefits to ratepayers of the Infrastructure Resource Facility, as well as of the local
1484 energy resource alternative(s), over the effective life of the proposed Infrastructure Resource
1485 Facility.

1486 (c) Prior to issuing a Determination of Wires, the Board must consider whether it is
1487 possible for any Local Energy Resource Alternative(s), alone or in combination, to meet or defer
1488 some or all of the identified need. In its consideration, the Board shall compare the Infrastructure
1489 Resource Facility to Local Energy Resource Alternatives based on uniform, standard criteria,
1490 including benefit-cost analysis. In its Determination, the Board must make specific findings
1491 regarding: i) the portions of the identified need, if any, that cannot be addressed or deferred by
1492 Local Energy Resource Alternative(s), due to engineering or public safety reasons; ii) the
1493 portions of the identified need, if any, for which the Board determines Local Energy Resource
1494 Alternative(s), alone or in combination, may meet or defer the need more cost-effectively, as
1495 defined in subsection f, than the Infrastructure Resource Facility, and the duration of such
1496 deferral; and iii) additional portions of identified need, if any. Notice of issuance of a
1497 Determination of Wires must be provided to the town or city administrator of each municipality

1498 in which the related Infrastructure Resource Facility or Local Energy Resource Alternative(s) is
1499 located.

1500 (d) Upon issuance of a Determination of Wires that contains a finding that one or more
1501 Local Energy Resource Alternative(s) may satisfy or defer a portion of the identified need more
1502 cost-effectively, as defined in subsection f, than the Infrastructure Resource Facility, the
1503 applicant must engage in a transparent, open solicitation for resources that can meet or defer that
1504 portion of the need, as well as any additional portions of identified need. Any requests for
1505 proposals shall be reviewed by the Department in consultation with DOER, the Energy
1506 Efficiency Advisory Council, and the Grid Modernization Consumer Board. The applicant's
1507 selection of resources for contracting shall be carried out in consultation with DOER, and any
1508 contracts shall be reviewed and approved by the Department.

1509 (e) If during the review of contracts by the Department, it is determined that an
1510 Infrastructure Resource Facility will meet the identified need more cost-effectively, as defined in
1511 subsection f, than the Local Energy Resource Alternative(s), such finding shall serve as prima
1512 facie evidence of the Infrastructure Resource Facility being the "lowest possible cost" for the
1513 Board's determination under Section 69J.

1514 (f) Within three months of enactment of this section, the Department of Energy
1515 Resources shall develop, in consultation with the Energy Efficiency Advisory Council, a
1516 framework for benefit-cost analysis to be applied to evaluations of Infrastructure Resource
1517 Facilities and Local Energy Resource Alternatives, as a determinant of cost-effectiveness. The
1518 Total Resource Cost test utilized in the Energy Efficiency programs shall be appropriately
1519 modified to account for the value of reliability and other site-specific costs, benefits and risks

1520 appropriate to consideration of Local Energy Resource Alternatives. Categories of costs and
1521 benefits may include: ratepayer benefits; reasonably foreseeable environmental and public health
1522 compliance costs; line losses; local reliability; market price suppression effects for energy and
1523 capacity; fuel price risks; avoided transmission and distribution investments; electric generation
1524 supply costs and reductions; capacity market costs and reductions; ancillary services costs and
1525 reductions; transmission costs and reductions; distribution system costs and reductions; outage
1526 costs and reductions for electric customers; renewable energy certificate costs; fuel costs;
1527 demand-reduction induced price effects; and other costs and benefits of switching to electricity-
1528 based end uses. No later than six months after enactment of this section, such framework shall
1529 be considered by the Board in creating regulations regarding the Board's process and criteria for
1530 determining cost-effectiveness and issuing a Determination of Wires.

1531 (g) Within ten months of enactment of this section, the Department shall issue criteria
1532 outlining acceptable methods for securing contracts for Local Energy Resource Alternatives.
1533 The Department may consider whether utility performance incentives are appropriate. Any such
1534 incentives must be included in the cost effectiveness analysis set forth in subsection f.

1535 (h) If the Board determines that one or more local energy resources alternative(s) can
1536 sufficiently address or defer the identified need at greater overall economic benefit to ratepayers
1537 across the region than the Infrastructure Resource Facility, but at a higher cost to ratepayers in
1538 the Commonwealth, the Board shall make reasonable efforts to achieve within 180 days an
1539 agreement among the states within the ISO-NE region to allocate the cost of the local energy
1540 resource alternative(s) among the ratepayers of the region using the allocation method used for
1541 regional transmission lines or a different allocation method that results in lower costs than the
1542 proposed Infrastructure Resource Facility to the ratepayers of the Commonwealth.

1543 SECTION 40. Section 69J of chapter 164 of the General Laws, as appearing in the 2016
1544 Official Edition, is hereby amended by striking the third paragraph and inserting in its place
1545 thereof the following paragraph:

1546 A petition to construct a facility shall include, in such form and detail as the board shall
1547 from time to time prescribe, the following information: (1) a description of the facility, site and
1548 surrounding areas; (2) an analysis of the need for the facility, either within or outside, or both
1549 within and outside the commonwealth; (3) a description of the alternatives to the facility, such as
1550 other methods of transmitting or storing energy, other site locations, other sources of electrical
1551 power or gas, or a reduction of requirements through load management; (4) any applicable
1552 Determination of Wires; and (5) a description of the environmental impacts of the facility,
1553 including impacts on greenhouse gas emissions. The board shall be empowered to issue and
1554 revise filing guidelines after public notice and a period for comment. A minimum of data shall be
1555 required by these guidelines from the applicant for review concerning land use impact, water
1556 resource impact, air quality impact, solid waste impact, radiation impact and noise impact.

1557 SECTION 41. Chapter 164 of the General Laws is hereby amended by inserting after
1558 section 94I, as appearing in the 2016 Official Edition, the following section:

1559 Section 94J:

1560 (a) In this section, unless the context clearly requires otherwise, “residential fixed charge”
1561 shall mean any recurring fixed fee charged to residential electric customers distinct from charges
1562 based on meter readings for each billing period, including, but not limited to, a fixed charge for
1563 distribution service, a distribution customer service charge, or a customer charge.

1564 (b) In a proceeding pursuant to section 94 with respect to an investigation of the rates,
1565 prices, and charges of a distribution company, the Department may not approve a residential
1566 fixed charge higher than the investment costs and operation and maintenance expenses directly
1567 related to the sum of 1) cost of connection, not including the cost of advanced metering used to
1568 provide energy services; 2) billing; and 3) the provision of customer service.

1569 SECTION 42. Section 1B of Chapter 164 of the General Laws is amended by inserting
1570 after subsection (f), as appearing in the 2016 Official Edition, the following section:

1571 (g) Beginning on January 1, 2018, each distribution company shall offer to default
1572 service customers an option to choose a time of use rate designed to reflect the cost of providing
1573 electricity at different times of the day. Each distribution company shall provide each default
1574 service customer, not less than once per year, a summary of available rate options with a
1575 calculation of expected bill impacts under each. Should a customer opt into a time of use rate, the
1576 distribution company shall install all necessary equipment within 60 days of request. Any
1577 residential customer choosing for the first time a time of use rate shall be provided with no less
1578 than one year of bill protection, during which the total amount paid by the customer for electric
1579 service shall not exceed the amount that would have been payable by the customer under that
1580 customer's previous rate schedule. A customer may choose a different rate schedule after one
1581 year. If the Department approves default service rates that include time-varying pricing on a
1582 mandatory or opt-out basis, this offering structure may be discontinued, but each distribution
1583 company must offer a time-varying default service rate at all times.

1584 SECTION 43. Notwithstanding any special or general law to the contrary, there shall be a
1585 special commission on solar mobility systems to determine the feasibility of permitting

1586 nonexclusive access to rights-of-way to mobility network providers meeting the following
1587 criteria: (i) Privately-funded construction; (ii) privately-operated without government subsidies;
1588 (iii) exceed 120 passenger miles per gallon or equivalent energy efficiency; (iv) exceed safety
1589 performance of transportation modes already approved for use; and (v) gather more than 2
1590 megawatt-hours of renewable energy per network mile per typical day.

1591 The commission shall include, but not be limited to: the secretary of energy and
1592 environmental affairs; the commissioner of energy resources; the secretary of transportation; the
1593 general manager of the Massachusetts Bay Transportation Authority; the chief executive officer
1594 of the Massachusetts clean energy technology center; 2 members of Bay State Sunway; 2
1595 members of the senate, 1 of whom shall be appointed by the minority leader; 2 members of the
1596 house of representatives, 1 of whom shall be appointed by the minority leader.

1597 The commission shall submit a report to the governor, the speaker of the house of
1598 representatives, the president of the senate, the joint committee on transportation and the
1599 Massachusetts Department of Transportation not later than December 31, 2017 setting forth the
1600 commission's findings, together with any recommendations for regulatory or legislative action,
1601 with a timeline for planning, construction, implementation, economic impact and integration of
1602 zero carbon transportation systems.

1603 SECTION 44. The Massachusetts Department of Transportation shall, in consultation
1604 with the zero emission vehicle commission and the department of state police, issue a feasibility
1605 study on authorizing a motor vehicle designated as a zero emissions vehicle, as defined in section
1606 16 chapter 25A, for travel in lanes designated for use by high-occupancy vehicles. The study
1607 shall include, but not be limited to, an examination of existing capacity in lanes designated for

1608 use by high-occupancy vehicles, the impact of zero emission vehicles on the lanes and a plan to
1609 properly differentiate zero emission vehicles to ensure appropriate access. The study shall be
1610 filed with the clerks of the senate and the house of representatives and the senate and house
1611 chairs of the joint committee on transportation not later than December 1, 2018.

1612 SECTION 45. The secretary of transportation shall conduct a feasibility study on the
1613 installation of charging stations for electric vehicles at rest stops along interstate highway route
1614 90 and the implementation of section 75 of chapter 6C of the General Laws. The study and any
1615 recommendations shall be submitted to the clerks of the senate and the house of representatives
1616 and the senate and house chairs of the joint committee on transportation not later than December
1617 31, 2018.

1618 SECTION 46. The secretary of transportation, in consultation with the secretary of
1619 energy and environmental affairs, shall conduct a study examining the advisability and feasibility
1620 of assessing surcharges, levies or other assessments to offset projected gas tax revenue loss from
1621 the purchase or operation of zero emission vehicles. The study shall examine practices in other
1622 states and shall include input from electric vehicle manufacturers, dealers and trade associations,
1623 the zero emission vehicle commission, electric vehicle and fuel cell vehicle manufacturers,
1624 electric vehicle charging station manufacturers and hydrogen providers, as well as transportation,
1625 environmental and clean energy advocacy groups. The report shall be filed with the clerks of the
1626 senate and house of representatives, the chairs of the senate and house committees on ways and
1627 means and the senate and house chairs of the joint committee on transportation not later than
1628 April 1, 2019.

1629 SECTION 47. The department of energy resources, in consultation with the
1630 Massachusetts Department of Transportation, shall conduct a study on the opportunities for
1631 electrification of the state fleet, including the vehicles used by the regional transit authorities.
1632 The study shall be filed with the clerks of the senate and the house of representatives and with
1633 the chairs of the senate and house chairs of the joint committee on transportation not later than
1634 September 1, 2019.

1635 SECTION 48. Notwithstanding any general or special law to the contrary, not later than
1636 30 days after the effective date of this act, the department of public utilities shall open a docket
1637 to investigate the need for additional capacity in the southeastern Massachusetts load zone within
1638 the next 10 years. This investigation shall be completed by March 15, 2019. If there is a
1639 demonstration that the ISO New England, Inc. forward capacity auction immediately preceding
1640 March 15, 2017 concluded with total capacity in the load zone, including excess generating
1641 capacity, in an amount less than the capacity expected to be needed to reliably serve the load to
1642 the load zone during the next subsequent auction after taking into account delist or retirement
1643 bids, the department shall determine whether there is a need for additional electric generating
1644 capacity in the southeastern Massachusetts load zone. This demonstration shall be conclusive
1645 proof of the need for additional electric generating capacity in the southeastern Massachusetts
1646 load zone. In making its determination, the department shall include consideration of ISO New
1647 England, Inc. findings and of the anticipated function of the capacity market in New England.

1648 If the department issues a finding that there is need for additional electric generating
1649 capacity in the southeastern Massachusetts load zone within the next 10 years, the department
1650 may consider the findings prior to the approval of a long-term contract under sections 83B to
1651 83D, inclusive, of chapter 169 of the acts of 2008 and, to the extent practicable, require that a

1652 new long-term contract reasonably demonstrates the delivery of new energy resources to meet
1653 the need.

1654 SECTION 49. When purchasing new hybrid and alternative fuel vehicles under section
1655 9A of chapter 7 of the General Laws, the commonwealth shall, consistent with the ability of the
1656 vehicles to perform their intended functions, ensure that 25 per cent of the motor vehicles
1657 purchased annually by the commonwealth will be zero emission vehicles by 2025 and ensure that
1658 the fuel efficiency standard under said section 9A of said chapter 7 incorporates intermediate
1659 targets for electric vehicles.

1660 SECTION 50. Notwithstanding section 5, the residential dwelling's energy rating and
1661 label, as established by the department of energy resources in section 11G½ of chapter 25A of
1662 the General Laws, shall not be required to be made available under section 97A of chapter 13 of
1663 the General Laws until January 1, 2018.

1664 SECTION 51. The regulations required pursuant to section 56 shall be promulgated not
1665 later than 180 days after the effective date of this act.

1666 SECTION 52. The comprehensive adaptation management action plan advisory
1667 commission shall complete the first report under subsection (b) of section 3 of chapter 21P of the
1668 General Laws not later than January 1, 2019 and shall complete a revised report at least once
1669 every 10 years thereafter.

1670 SECTION 53. The first comprehensive adaptation management action plan under section
1671 2 of chapter 21P of the General Laws shall be completed not later than January 1, 2020.

1672 SECTION 54. The 2030 statewide greenhouse gas emissions limit under subsection (a) of
1673 section 4 of chapter 21N of the General Laws shall be adopted not later than January 1, 2021.

1674 SECTION 55. The 2040 statewide greenhouse gas emissions limit required under
1675 subsection (a) of section 4 of chapter 21N of the General Laws shall be adopted not later than
1676 January 1, 2031.

1677 SECTION 56. A municipality that elects to enter into a community empowerment
1678 contract pursuant to paragraph (2) of subsection (c) of section 134 of chapter 164 of the General
1679 Laws with a company that proposes to construct a renewable energy project shall enter into any
1680 such contract not later than December 31, 2021.

1681 SECTION 57. The department of public utilities shall promulgate the regulations,
1682 guidelines or orders required by paragraph (6) of subsection (c) of section 134 of chapter 164 of
1683 the General Laws within 6 months after the effective date of this act.

1684 SECTION 58. The department of energy resources shall promulgate the regulations or
1685 guidelines required by paragraph (7) of subsection (c) of section 134 of chapter 164 of the
1686 General Laws within 6 months after the effective date of this act.

1687 SECTION 59. Sections 1, 2 and 16 shall take effect on January 1, 2019.

1688 SECTION 60. Sections 4 to 6, inclusive, shall take effect on July 1, 2019.