An Act providing for the establishment of a comprehensive adaptation management plan in response to climate change.

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

SECTION 1. The General Laws are hereby amended by inserting after chapter 21O the following chapter:-

CHAPTER 21P.

COMPREHENSIVE ADAPTATION MANAGEMENT ACTION PLANNING IN RESPONSE TO CLIMATE CHANGE

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

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

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

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

“Plan”, the comprehensive adaptation management action plan.

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

“Resilience”, the capacity of social, economic and environmental systems to cope with a hazardous event, trend or disturbance by responding or reorganizing in ways that maintain their essential function, identity and structure while also maintaining the capacity for adaptation, learning and transformation.

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

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

“Sustainability”, the establishment and maintenance of conditions under which humans
and nature can exist in productive harmony and fulfill the social, economic and other
requirements of present and future generations in a just and equitable manner, including
providing for the long-term viability of the people and economy of the commonwealth and its
natural ecosystems, which requires consideration of the risks posed by climate change, the
practicality of maintaining a long-term presence in the most vulnerable areas and the need to
protect and restore natural ecosystems and their services.

Section 2. (a) The secretary of energy and environmental affairs and the secretary of
public safety and security, in consultation with appropriate secretariats as determined by the
governor, shall develop, draft, adopt and revise at least once every 10 years, a comprehensive
adaptation management action plan. The plan shall encourage and provide guidance to state
agencies, state authorities, and regional planning agencies to proactively address the
consequences of climate change and provide a process for local and regional climate
vulnerability assessment and adaptation strategy development. The plan and any updates shall be
filed with clerks of the house of representatives and senate. The plan shall be developed with
guidance from the comprehensive adaptation management action plan advisory commission
established in section 3.
Upon the adoption of the plan, all certificates, licenses, permits, authorizations, grants, financial obligations, projects, actions and approvals for any proposed projects, uses or activities in and by a state agency or state authority shall be consistent, to the maximum extent practicable, with the plan.

(b) The plan shall include, but not be limited to: (i) a statement setting forth the commonwealth’s goals, priorities and principles for ensuring effective prioritization for the resiliency, preservation, protection, restoration and enhancement of the commonwealth’s built and natural infrastructure; (ii) a commitment to the adherence of sound management practices which shall take into account the existing natural, built and economic characteristics of the commonwealth’s most vulnerable areas and human populations; (iii) data on existing, forecasted and projected impacts including, but not limited to, drought and temperature changes, inland flooding and sea level rise according to the best and latest data, forecasting and models; (iv) a statement on the preparedness and vulnerabilities in the commonwealth’s emergency response and infrastructure resiliency including, but not limited to, energy, transportation, communications, health and other systems; and (v) an assessment of the economic vulnerability of local businesses in high-risk communities.

Section 3. (a) There shall be a comprehensive adaptation management action plan advisory commission to assist the secretary of energy and environmental affairs and the secretary of public safety and security in developing the comprehensive adaptation management plan. The commission shall consist of the state climatologist and the following members who shall be appointed by the secretary of energy and environmental affairs and the secretary of public safety and security: 1 person who shall have expertise in transportation and built infrastructure; 1 person who shall have expertise in commercial, industrial and manufacturing activities; 1 person
who shall have expertise in commercial property management and real estate; 1 person who shall have expertise in energy generation and distribution; 1 person who shall have expertise in land conservation; 1 person who shall have expertise in water supply and quality; 1 person who shall have expertise in the outdoor recreation economy; 1 person who shall have expertise in economic justice; 1 person who shall have expertise in ecosystem dynamics; 1 person who shall have expertise in coastal zones and oceans; 1 person who shall have expertise in rivers and wetlands; and 1 person who shall have expertise in local government. The secretary of energy and environmental affairs and the secretary of public safety and security shall designate an individual of their choosing to serve as chair.

(b) The advisory commission shall prepare a report:

(1) identifying: (i) how the secretary of energy and environmental affairs can support existing adaptation, resilience and hazard mitigation efforts of state agencies, such as the StormSmart Coasts program at the office of coastal zone management, BioMap2 at the department of fish and game and vulnerability studies being conducted by the department of public health and the Massachusetts Department of Transportation; (ii) recommendations of new actions that may be implemented immediately using existing state agency legal authority, state resources and funding based upon the recommendations included in the climate change adaptation report prepared pursuant to section 9 of chapter 298 of the acts of 2008 and existing climate change action plans prepared by regional planning agencies and municipalities; (iii) unilateral actions that can be taken by the executive branch to increase climate adaptation, resilience and hazard mitigation including, but not limited to, executive orders and policy directives issued by the governor or policies, regulations and guidance by the secretary of energy and environmental affairs; and (iv) recommendations of new climate resilience and adaptation
actions that require legislative authority, state resources or funding, including identification of
funds to leverage opportunities through public-private partnerships; and

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

Section 4. Each state agency, state authority and public utility, as designated by the
secretary of environmental affairs and the secretary of public safety and security, shall, in
consultation with the executive office, develop and update at least once every 10 years a
vulnerability assessment for their portfolio of assets based on the relative scientific information
collected by the comprehensive adaptation management action plan advisory commission
pursuant to section 3. The vulnerability assessments shall classify the economic losses over time
associated with each major asset for each flooding scenario as unacceptable, noncritical or
immaterial. For assets exposed to material risk of unacceptable losses, the vulnerability
assessment shall include order-of-magnitude cost-estimates for: (i) measures to protect the assets
from flooding; (ii) measures to make the assets flood resilient; and (iii) removal and relocation of
the assets from flood-exposed coastal and river areas. Estimates shall also be prepared for the
economic, social and environmental damages if no adaptation actions are taken. Qualitative cost-
benefit discussions of projected social impacts of flood prevention versus flood resilience shall
also be included in the vulnerability assessment.

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

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

SECTION 1A. Section 3 of chapter 25A of the General Laws, as appearing in the 2014 Official Edition, is hereby amended by inserting after the definition of “Commissioner” the following definition:-

“Community-shared solar facility”, a Class I, Class II or Class III net metering facility, as defined in section 138 of chapter 164 of the General Laws, with 3 or more eligible recipients of
net metering credits; provided, however, that not more than 50 per cent of the credits produced
by the facility shall be allocated to 2 such recipients; and provided further, that each of the
remaining recipients shall receive not more than the amount of credits produced annually by 25
kW AC capacity.

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

Section 11J. (a) The department shall develop a solar incentive program to encourage
continued development of solar photovoltaic technology by residential, commercial,
governmental and industrial electricity customers throughout the commonwealth. The goal shall
be to develop a sustainable long-term framework that effectively balances promoting clean
energy and costs to ratepayers.

(b) After notice and opportunity for public comment, the department shall, prior to the
installation of 1600 megawatts, or MW, of solar capacity in the commonwealth, promulgate rules
and regulations to implement an incentive program structure which: (i) promotes the orderly
transition to a stable, equitable and self-sustaining solar market in which the solar incentive
levels are equivalent to those offered in broader renewable programs available in the
commonwealth; (ii) considers underlying system costs including, but not limited to, module
costs, balance of system costs, installation costs and soft costs; (iii) takes into account electricity
revenues and any federal or state incentives; (iv) relies on market-based mechanisms and price
signals as much as possible to set incentive levels; (v) minimizes direct and indirect program
costs and barriers; (vi) features a known or easily estimated budget to achieve program goals
through the use of an adjustable block incentive framework or other stable, declining incentive
framework; (vii) differentiates incentive levels to support diverse installation types that provide unique benefits which may include differentiation by utility service territory; (viii) promotes energy justice and equitable access to the benefits of solar energy, including support of community-shared solar projects; (ix) promotes investor confidence through long-term incentive revenue certainty and market stability; and (x) is adaptable to changing market conditions.

(c) The department shall ensure that onsite solar renewable generating sources qualified under subsection (g) of section 11F and applicable regulations shall continue to be subject to and receive the benefits conferred under programs established under said subsection (g) of said section 11F. For the purposes of this subsection, “qualified” shall mean an eligible renewable energy source that has received either a statement of qualification or an assurance of qualification from the department as those terms are defined in 225 CMR 14.00 prior to any regulation adopted under this section.

(d) The department may develop incentives to promote the equitable growth of solar generation across service territories or a mechanism to share the costs of solar generation across service territories prior to the development of a new solar program established pursuant to subsection (b).

SECTION 1C. Section 138 of chapter 164 of the General Laws, as appearing in the 2014 Official Edition, is hereby amended by inserting after the definition of “Renewable energy” the following definition:-

“Solar net metering credit” a credit equal to the excess kilowatt-hours by time of use billing period, if applicable, multiplied by the sum of the distribution company’s: (i) default service kilowatt-hour charge in the ISO-NE load zone where the customer is located; (ii)
distribution kilowatt-hour charge; (iii) transmission kilowatt-hour charge; and (iv) transition kilowatt-hour charge; provided, however, that “solar net metering credit” shall not include the demand side management and renewable energy kilowatt-hour charges set forth in sections 19 and 20 of chapter 25. The department may adjust the distribution kilowatt-hour charge after public notification and hearing.

SECTION 1D. Section 139 of said chapter 164, as so appearing, is hereby amended by inserting after subsection (b) the following subsection:-

(b ½) A solar net metering facility, for which less than 67 per cent of its electrical energy on an annual basis is used by an onsite load, that submits an application to the system of assurance under subsection (g) after December 31, 2016 shall generate solar net metering credits. If the electricity generated by a solar net metering facility during a billing period exceeds the customer’s kilowatt-hour usage during the billing period, the customer shall be billed for 0 kilowatt-hour usage and the excess solar net metering credits shall be credited to the customer’s account. Credits may be carried forward from month to month. A solar net metering facility may designate customers of the same distribution company to which the net metering facility is interconnected and that are located in the same ISO-NE load zone to receive such credits in amounts attributed to such customers by the solar net metering facility. Written notice of the identities of the customers so designated and the amounts of the credits to be attributed to those customers shall be in such form as the distribution company shall reasonably require. In the instance of a class III solar net metering facility, a distribution company may elect not to allocate such credits and instead may purchase solar net metering credits from the facility at the rates provided in this section.
SECTION IE. Said section 139 of said chapter 164, as so appearing, is hereby further amended by striking out, in lines 45 and 47, the words “or Class III” and inserting in place thereof, in each instance, the following words:— Class III or solar.

SECTION IF. Said section 139 of said chapter 164, as so appearing, is hereby further amended by striking out subsection (f) and inserting in place thereof the following subsection:

(f) The aggregate net metering capacity for solar net metering facilities shall be 1600 megawatts of installed solar capacity, shared across each distribution company’s service territory. The maximum amount of generating capacity eligible for net metering by a municipality or other governmental entity shall be 10 megawatts.

SECTION IG. Said chapter 139 of said chapter 164 is hereby further amended by striking out subsection (f), inserted by section 1F, and inserting in place thereof the following subsection:

(f) No aggregate net metering cap shall apply to solar net metering facilities with the exception that the maximum amount of generating capacity eligible for net metering by a municipality or other governmental entity shall be 10 megawatts.

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

SECTION 3. The executive office of energy and environmental affairs, in consultation
with the division of capital asset management and maintenance, may acquire by purchase from
willing sellers land abutting or adjacent to areas subject to the ebb and flow of the tide or on
barrier beaches or in velocity zones of flood plain areas, on which structures have been
substantially and repeatedly damaged by severe weather, for conservation and recreation
purposes, including those rejected by the Pre-Disaster Mitigation Grant Program and the Hazard
Mitigation Grant Program administered by the Federal Emergency Management Agency.
Prior to the acquisition of any land under this section, the executive office shall develop a conservation and recreation management plan for any such land after consultation with the municipality in which the land is located. The plan shall set forth the priority, description and location of lands to be acquired and any land management agreement reached between the agency and municipality that provides for local responsibility to carry out the development and management of the property. Land acquisitions under this section shall contain a deed restriction stating that the land shall be used for conservation and recreation purposes only.

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

If the executive office deems it necessary to make appraisals, surveys, soundings, borings, test pits or other related examinations to obtain information to carry out this section, the executive office or its authorized agents or employees may, after due notice by registered mail, enter upon lands, water and premises, not including buildings, to make such appraisals, surveys, soundings, borings, test pits or other related examinations and such entry shall not be a trespass. The executive office shall provide reimbursement for any injury or actual damages resulting to the lands, waters and premises caused by any act of the executive office or its authorized agents or employees and shall, so far as possible, restore the lands to the same condition as prior to making such appraisals, surveys, soundings, borings, test pits or other related examinations.
SECTION 4. (a) The executive office of energy and environmental affairs, acting for and
on behalf of the commonwealth, may lease to a municipality, on a form approved by the attorney
general, for not more than 25 years, certain property acquired by the commonwealth pursuant to
section 3 or by the federal emergency management agency under 42 U.S.C. § 4001, as amended,
for use as conservation and recreation areas. Leases shall be in such form and contain such
provisions as the secretary of energy and environmental affairs, in consultation with the division
of capital asset management and maintenance, shall determine, including such terms and
conditions as necessary to comply with laws relative to the protection of barrier beaches. Lands
shall be leased upon the express conditions that the land shall be used for conservation and
recreation purposes only, that no permanent structures shall be erected and a reversionary clause
that requires the lease to be terminated if the leased land is used in violation of this act.

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

SECTION 5. Pursuant to its authority under section 40 of chapter 131 of the General
Laws, the commissioner of environmental protection shall promulgate rules regulating the
dredging, filling or altering of land subject to coastal storm flowage.

SECTION 6. The executive office of energy and environmental affairs and the executive
office of public safety and security may expend such sums as may be available from any
account, appropriation or fund available to the respective executive offices or to any agency
within those executive offices to carry out chapter 21P of the General Laws, including expenses
in connection with the department’s responsibilities under that chapter and the cost of planning
and for the development, redevelopment or improvement of land under that chapter.

SECTION 7. The regulations required pursuant to section 5 shall be promulgated not
later than 180 days after the effective date of this act.

SECTION 8. The comprehensive adaptation management action plan advisory
commission shall complete the first report required under subsection (b) of section 3 of chapter
21P of the General Laws not later than January 1, 2017 and shall revise said report at least once
every 10 years.

SECTION 9. The first comprehensive adaptation management action plan required under
section 2 of chapter 21P of the General Laws shall be completed not later than January 1, 2018.

SECTION 10. Section 1G shall take effect upon the installation of 1600 megawatts of
solar capacity in the commonwealth.