SENATE DOCKET, NO. 2049 FILED ON: 1/20/2017

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:

NAME:	DISTRICT/ADDRESS:	
Marc R. Pacheco	*First Plymouth and Bristol*	
Jason M. Lewis	*Fifth Middlesex*	*1/26/2017*
Jack Lewis	*7th Middlesex*	*1/27/2017*
Dylan Fernandes	*Barnstable, Dukes and Nantucket*	*1/27/2017*
Michael D. Brady	*Second Plymouth and Bristol*	*1/27/2017*
Mike Connolly	*26th Middlesex*	*1/27/2017*
Marjorie C. Decker	*25th Middlesex*	*1/30/2017*
Carmine L. Gentile	*13th Middlesex*	*1/30/2017*
Jose F. Tosado	*9th Hampden*	*1/30/2017*
Thomas J. Calter	*12th Plymouth*	*1/30/2017*
Sal N. DiDomenico	*Middlesex and Suffolk*	*1/30/2017*
Brian M. Ashe	*2nd Hampden*	*1/31/2017*
Natalie Higgins	*4th Worcester*	*1/31/2017*
John W. Scibak	*2nd Hampshire*	*1/31/2017*
Cory Atkins	*14th Middlesex*	*1/31/2017*
Jennifer E. Benson	*37th Middlesex*	*1/31/2017*
Frank I. Smizik	*15th Norfolk*	*1/31/2017*
Adam G. Hinds	*Berkshire, Hampshire, Franklin and*	*1/31/2017*

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

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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:

SECTION 1. Chapter 10 of the General Laws is hereby amended by inserting after section 35DDD the following section:-

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

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

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

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

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

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

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

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

"Nuclear power station", a commercial facility that uses or used nuclear fuel to generate electric power.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GLOBAL WARMING SOLUTIONS IMPLEMENTATION ACT.

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

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

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

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

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

SECTION 9. 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 company", a public utility company as defined in clause (7) of paragraph (j) of section 5 of chapter 21E.

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

"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 and shall not include, unless designated as such by the secretary of energy and environmental affairs: (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.

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. The plan shall also provide a process for local and regional climate vulnerability assessment and adaptation strategy development and implementation and may encourage and provide guidance to cities and towns to proactively address the consequences of climate change. The plan and any updates shall be filed with clerks of the senate and the house of representatives. 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, the certificates, licenses, permits, authorizations, grants, financial obligations, projects, actions and approvals for 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 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 and projected climate trends, according to the best and latest data, forecasting and models including, but not limited to, changes for temperature, precipitation, drought, sea level, and inland and coastal flooding; (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; (v) an assessment of economic vulnerability, including but not limited to, local businesses in high-risk communities; and (vi) an assessment of natural resources and ecosystems, identifying vulnerabilities and strategies to preserve, protect, restore and enhance.

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 secretary of the energy and environmental affairs or a designee; the secretary of public safety and security or a designee; 1 person from the University of Massachusetts with expertise in climate science chosen by the university; and 18 persons to be appointed by the secretary of energy and environmental affairs and the secretary of public safety and security, 1 of whom shall have expertise in transportation and built infrastructure, 1 of whom shall have expertise in commercial, industrial and manufacturing activities, 1 of whom shall have expertise in commercial and residential property management and real estate, 1 of whom shall have expertise in energy generation and distribution, 1 of whom shall have expertise in wildlife and land conservation, 1 of whom shall have expertise in water supply and conservation, 1 of whom shall have expertise in the outdoor recreation economy, 1 of whom shall have expertise in economic and environmental justice, 1 of whom shall have expertise in ecosystem dynamics, 1 of whom shall have expertise in coastal zones and oceans, 1 of whom shall have expertise in rivers and wetlands, 1 of whom shall be a professional engineer, 1 of whom shall be from a statewide nonprofit land and water conservation organization, 1 of whom shall have expertise in

historic and cultural resources, 1 of whom shall be a property owner in a coastal community, 1 of whom shall have expertise in small business administration, 1 of whom shall be a certified floodplain manager and 1 of whom shall have expertise in local government. The secretary of energy and environmental affairs and the secretary of public safety and security shall jointly designate an appointee 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 the existing adaptation, resilience and hazard mitigation efforts of state agencies, including, but not limited to, the StormSmart Coasts program at the office of coastal zone management, the coastal erosion commission report, 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; (iv) recommendations of new climate resilience and adaptation actions that require legislative authority, state resources or funding, including the identification of funds to leverage opportunities through public-private partnerships; and (v) the cost of climate adaptation within the 10-year term of the plan, based upon the adaptation actions recommended in the report, existing climate action plans, including

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

(2) providing information relative to the risks associated with climate change, both means and extremes, including, but not limited to, the risks associated with changes in temperature, drought, increased precipitation and coastal and inland flooding identified by the advisory committee on flood risks created by climate change established under 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 and adaptation assessment for their portfolio of assets based on the relevant scientific data and 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 that are associated with each major asset for the relevant climate risks including, but not limited to, coastal and inland flooding and extreme heat, 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; (ii) measures to make the assets resilient; and (iii) removal and relocation of the assets from exposed areas. Estimates shall also be prepared for the economic, social and environmental damages that will result 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 at least 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 a public hearing in the environmental monitor at least 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 senate and the house of representatives.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

"No. 1 distillate", fuel oil classified as No. 1 distillate by ASTM International.

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

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

"Energy efficiency advisory council", the energy efficiency advisory council established pursuant to section 22 of chapter 25.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

"Department", the department of public utilities.

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

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

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

"Renewable energy certificate", a certificate representing the environmental attributes of 1 megawatt hour of electricity generated by a renewable energy project, the creation, use and 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;

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SECTION 21. Section 139 of chapter 164 is hereby amended by striking out subsection (f) 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 22. Section 9 (j) of Chapter 75 of the Acts of 2016 is hereby amended by striking the first sentence of the third paragraph and inserting at the beginning of the paragraph:-

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

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

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

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

"Clean energy generation", (i) hydroelectric generation; (ii) new Class I renewable portfolio standard eligible resources that are firmed up with hydroelectric generation; or (iii) new Class I renewable portfolio standard eligible resources.

"Distribution company", a distribution company as defined in section 1 of chapter 164 of the General Laws.

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

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

"Offshore wind developer", a provider of electricity developed from an offshore wind energy generation project.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SECTION 27. The secretary of energy and environmental affairs shall develop and support a regional comprehensive climate change adaptation management action plan grant program that 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 286

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 under 13 of chapter 25A of the General Laws for the grant program. A regional comprehensive adaptation management action plan 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 vulnerable inland and coastal 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 28. 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 United States Federal Emergency Management Agency.

Prior to the acquisition of land under this section, the executive office shall develop a conservation and recreation management plan and a coastal erosion mitigation and management plan for the land after consultation with the municipality in which the land is located. The plan shall set forth the priority, description and location of land 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 acquired pursuant to 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 or other municipal legislative body in a city, or the city manager and the municipal legislative body in a Plan D or Plan E form of government, or the board of selectmen, planning board and conservation commission, if any, or other municipal legislative body, of a town not later than 10 days prior to a 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 the appraisals, surveys, soundings, borings, test pits or other related examinations and the entry shall not be a trespass. The executive office shall provide reimbursement for an injury or actual damages resulting to the lands, waters and premises caused by an 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 the appraisals, surveys, soundings, borings, test pits or other related examinations.

SECTION 29. (a) The executive office of energy and environmental affairs, acting for and on behalf of the commonwealth, may lease to a municipality or nonprofit organization, on a form approved by the attorney general, for not more than 25 years, certain property acquired by the commonwealth pursuant to section 18B or by the United States Federal Emergency Management Agency under 42 U.S.C. § 4001 et seq., as amended, for use as conservation and recreation areas. A lease shall be in the form and contain the provisions as determined by the secretary of energy and environmental affairs, in consultation with the division of capital asset management and maintenance, including the terms and conditions as necessary to comply with laws relative to the protection of barrier beaches. Land shall be leased upon the express conditions that the land shall be used for conservation and recreation purposes only and 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 a law relative to barrier beaches or condition of the lease shall be included.

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

SECTION 30. 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 31. 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 an account, appropriation or fund available to the respective executive offices or to an agency

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Section 146:

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

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

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

(3) “Board,” the Grid Modernization Consumer Board.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Also amended by adding the following definition after "generating facility":

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

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

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

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

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

Section 69J 1/6:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Section 94J:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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