# House of Representatives

## *File No. 1013*

General Assembly

*January Session, 2019*

***(Reprint of File No. 385)***

House Bill No. 5002
As Amended by House Amendment
Schedule "A"

Approved by the Legislative Commissioner
May 30, 2019

***AN ACT CONCERNING A GREEN ECONOMY AND ENVIRONMENTAL PROTECTION.***

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. Section 16-243h of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

On and after January 1, 2000, and until **[**(1) for residential customers, the expiration of the residential solar investment program pursuant to subsection (b) of section 16-245ff, and (2) for all other customers not covered in subdivision (1) of this section, the date the Public Utilities Regulatory Authority approves the procurement plan pursuant to subsection (a) of section 16-244z**]** December 31, 2021, each electric supplier or any electric distribution company providing standard offer, transitional standard offer, standard service or back-up electric generation service, pursuant to section 16-244c, shall give a credit for any electricity generated by a customer from a Class I renewable energy source or a hydropower facility that has a nameplate capacity rating of two megawatts or less for a term ending on

December 31, [2039] 2041, provided any customer that has a contract approved by the Public Utilities Regulatory Authority pursuant to section 16-244r, as amended by this act, on or before December 31, 2021, shall be eligible for such credit. The electric distribution company providing electric distribution services to such a customer shall make such interconnections necessary to accomplish such purpose. An electric distribution company, at the request of any residential customer served by such company and if necessary to implement the provisions of this section, shall provide for the installation of metering equipment that [(A)] (1) measures electricity consumed by such customer from the facilities of the electric distribution company, [(B)] (2) deducts from the measurement the amount of electricity produced by the customer and not consumed by the customer, and [(C)] (3) registers, for each billing period, the net amount of electricity either [(i)] (A) consumed and produced by the customer, or [(ii)] (B) the net amount of electricity produced by the customer. If, in a given monthly billing period, a customer-generator supplies more electricity to the electric distribution system than the electric distribution company or electric supplier delivers to the customer-generator, the electric distribution company or electric supplier shall credit the customer-generator for the excess by reducing the customer-generator's bill for the next monthly billing period to compensate for the excess electricity from the customer-generator in the previous billing period at a rate of one kilowatt-hour for one kilowatt-hour produced. The electric distribution company or electric supplier shall carry over the credits earned from monthly billing period to monthly billing period, and the credits shall accumulate until the end of the annualized period. At the end of each annualized period, the electric distribution company or electric supplier shall compensate the customer-generator for any excess kilowatt-hours generated, at the avoided cost of wholesale power. A customer who generates electricity from a generating unit with a nameplate capacity of more than ten kilowatts of electricity pursuant to the provisions of this section shall be assessed for the competitive transition assessment, pursuant to section 16-245g and the systems benefits charge, pursuant to section 16-245*l*, based on the

amount of electricity consumed by the customer from the facilities of the electric distribution company without netting any electricity produced by the customer. For purposes of this section, "residential customer" means a customer of a single-family dwelling or multifamily dwelling consisting of two to four units. The Public Utilities Regulatory Authority shall establish a rate on a cents-per-kilowatt-hour basis for the electric distribution company to purchase the electricity generated by a customer pursuant to this section after December 31, **[**2039**]** 2041.

Sec. 2. Subsection (c) of section 16-244r of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(c) (1) The aggregate procurement of renewable energy credits by electric distribution companies pursuant to this section shall (A) be eight million dollars in the first year, and (B) increase by an additional eight million dollars per year in years two to four, inclusive.

(2) After year four, the authority shall review contracts entered into pursuant to this section and if the cost of the technologies included in such contracts have been reduced, the authority shall seek to enter new contracts for the total of six years.

(3) After year six, the authority shall seek to enter new contracts for the total of **[**eight**]** ten years.

(A) The aggregate procurement of renewable energy credits by electric distribution companies pursuant to this subdivision shall (i) increase by an additional eight million dollars per year in years five to **[**eight**]** ten, inclusive, (ii) be **[**sixty-four**]** eighty million dollars in years **[**nine**]** eleven to fifteen, inclusive, and (iii) decline by eight million dollars per year in years sixteen to **[**twenty-three**]** twenty-five, inclusive, provided any money not allocated in any given year may roll into the next year's available funds. On the date of approval of the procurement plan by the authority pursuant to subsection (a) of section 16-244z, as amended by this act, any money not yet allocated

pursuant to this section shall expire.

(B) For the sixth, seventh, [and] eighth, ninth and tenth year solicitations, each electric distribution company shall solicit and file with the Public Utilities Regulatory Authority for its approval one or more long-term contracts with owners or developers of Class I generation projects that: (i) Emit no pollutants and that are less than one thousand kilowatts in size, located on the customer side of the revenue meter and serve the distribution system of the electric distribution company, provided such contracts do not exceed fifty per cent of the dollar amount established for years six, seven, [and] eight, nine and ten under subparagraph (A) of this subdivision; and (ii) are less than two megawatts in size, located on the customer side of the revenue meter, serve the distribution system of the electric distribution company, and use Class I technologies that either (I) use anaerobic digestion, or (II) have no emissions of no more than 0.07 pounds per megawatt-hour of nitrogen oxides, 0.10 pounds per megawatt-hour of carbon monoxide, 0.02 pounds per megawatt-hour of volatile organic compounds, and one grain per one hundred standard cubic feet, provided such contracts do not exceed fifty per cent of the dollar amount established for years six, seven, [and] eight, nine and ten under subparagraph (A) of this subdivision. The authority may give a preference to contracts for technologies manufactured, researched or developed in the state.

(4) The production of a megawatt hour of electricity from a Class I renewable energy source first placed in service on or after July 1, 2011, shall create one renewable energy credit. A renewable energy credit shall have an effective life covering the year in which the credit was created and the following calendar year. The obligation to purchase renewable energy credits shall be apportioned to electric distribution companies based on their respective distribution system loads at the commencement of the procurement period, as determined by the authority. For contracts entered into in calendar year 2012, an electric distribution company shall not be required to enter into a contract that provides a payment of more than three hundred fifty dollars, per

renewable energy credit in any year over the term of the contract. For contracts entered into in calendar years 2013 to 2017, inclusive, at least ninety days before each annual electric distribution company solicitation, the Public Utilities Regulatory Authority may lower the renewable energy credit price cap specified in this subsection by three to seven per cent annually, during each of the six years of the program over the term of the contract. For contracts entered into in calendar year 2018, at least ninety days before the electric distribution company solicitation, the Public Utilities Regulatory Authority may lower the renewable energy credit price cap specified in this subsection by sixty-four per cent, during year seven of the program over the term of the contract. For contracts entered into in calendar year 2019, at least ninety days before the electric distribution company solicitation, the Public Utilities Regulatory Authority may lower the renewable energy credit price cap specified in this subsection by sixty-four per cent, during year eight of the program over the term of the contract. For contracts entered into in calendar year 2020, at least ninety days before the electric distribution company solicitation, the Public Utilities Regulatory Authority may lower the renewable energy credit price cap specified in this subsection by sixty-four per cent, during year nine of the program over the term of the contract. For contracts entered into in calendar year 2021, at least ninety days before the electric distribution company solicitation, the Public Utilities Regulatory Authority may lower the renewable energy credit price cap specified in this subsection by sixty-four per cent, during year ten of the program over the term of the contract. In the course of lowering such price cap applicable to each annual solicitation, the authority shall, after notice and opportunity for public comment, consider such factors as the actual bid results from the most recent electric distribution company solicitation and reasonably foreseeable reductions in the cost of eligible technologies.

Sec. 3. Section 16-244z of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(a) (1) (A) On or before September 1, 2018, the Public Utilities Regulatory Authority shall initiate a proceeding to establish a

procurement plan for each electric distribution company pursuant to this subsection and may give a preference to technologies manufactured, researched or developed in the state, provided such procurement plan is consistent with and contributes to the requirements to reduce greenhouse gas emissions in accordance with section 22a-200a. Each electric distribution company shall develop such procurement plan in consultation with the Department of Energy and Environmental Protection and shall submit such procurement plan to the authority not later than sixty days after the authority initiates the proceeding pursuant to this subdivision, provided the department shall submit the program requirements pursuant to subparagraph (C) of this subdivision on or before July 1, 2019. The authority may require such electric distribution companies to conduct separate solicitations pursuant to subdivision (4) of this subsection for the resources in subparagraphs (A), (B) and (C) of said subdivision, including separate solicitations based upon the size of such resources to allow for a diversity of selected projects.

(B) On or before September 1, 2018, the authority shall initiate a proceeding to establish tariffs that provide for twenty-year terms of service described in subdivision (3) of this subsection for each electric distribution company pursuant to subparagraphs (A) and (B) of subdivision (2) of this subsection. In such proceeding, the authority shall establish the period of time that will be used for calculating the net amount of energy produced by a facility and not consumed, provided the authority shall assess whether to incorporate time-of-use rates or other dynamic pricing and such period of time shall be either (i) in real time, (ii) in one day, **[**or**]** (iii) in any fraction of a day not to exceed one day, or (iv) in any period of time greater than one day up to and including one month. In such proceeding, the authority shall consider the findings of the study of the value of distributed energy resources conducted pursuant to section 6 of this act. The rate for such tariffs shall be established by the solicitation pursuant to subdivision (2) of this subsection.

(C) On or before September 1, 2018, the Department of Energy and

Environmental Protection shall (i) initiate a proceeding to develop program requirements and tariff proposals for shared clean energy facilities eligible pursuant to subparagraph (C) of subdivision (2) of this subsection, including, but not limited to, the requirements in subdivision (6) of this subsection, and (ii) establish either or both of the following tariff proposals: (I) A tariff proposal that includes a price cap on a cents-per-kilowatt-hour basis for any procurement for such resources based on the procurement results of any other procurement issued pursuant to this subsection, and (II) a tariff proposal that includes a tariff rate for customers eligible under subparagraph (C) of subdivision (2) of this subsection based on energy policy goals identified by the department in the Comprehensive Energy Strategy pursuant to section 16a-3d. On or before July 1, 2019, the department shall submit any such program requirements and tariff proposals to the authority for review and approval. On or before January 1, 2020, the authority shall approve or modify such program requirements and tariff proposals submitted by the department. If the authority approves two tariff proposals pursuant to this subparagraph, the authority shall determine how much of the total compensation authorized for customers eligible under this subparagraph pursuant to subparagraph (A) of subdivision (1) of subsection (c) of this section shall be available under each tariff.

(2) Not later than **[**July 1, 2020**]** July 1, 2022, and annually thereafter, each electric distribution company shall solicit and file with the Public Utilities Regulatory Authority for its approval one or more projects selected resulting from any procurement issued pursuant to subdivision (1) of this subsection that are consistent with the tariffs approved by the authority pursuant to subparagraphs (B) and (C) of subdivision (1) of this subsection and that are applicable to (A) customers that own or develop new generation projects on a customer's own premises that are less than two megawatts in size, serve the distribution system of the electric distribution company, are constructed after the solicitation conducted pursuant to subdivision (4) of this subsection to which the customer is responding, and use a Class

I renewable energy source that either (i) uses anaerobic digestion, or (ii) has emissions of no more than 0.07 pounds per megawatt-hour of nitrogen oxides, 0.10 pounds per megawatt-hour of carbon monoxide, 0.02 pounds per megawatt-hour of volatile organic compounds and one grain per one hundred standard cubic feet, (B) customers that own or develop new generation projects on a customer's own premises that are less than two megawatts in size, serve the distribution system of the electric distribution company, are constructed after the solicitation conducted pursuant to subdivision (4) of this subsection to which the customer is responding, and use a Class I renewable energy source that emits no pollutants, and (C) customers that own or develop new generation projects that are a shared clean energy facility, as defined in section 16-244x, and subscriptions, as defined in such section, associated with such facility, consistent with the program requirements developed pursuant to subparagraph (C) of subdivision (1) of this subsection. Any project that is eligible pursuant to subparagraph (C) of this subdivision shall not be eligible pursuant to subparagraph (A) or (B) of this subdivision.

(3) A customer that is eligible pursuant to subparagraph (A) or (B) of subdivision (2) of this subsection may elect in any such solicitation to utilize either (A) a tariff for the purchase of all energy and renewable energy certificates on a cents-per-kilowatt-hour basis, or (B) a tariff for the purchase of any energy produced by a facility and not consumed in the period of time established by the authority pursuant to subparagraph (B) of subdivision (1) of this subsection and all renewable energy certificates generated by such facility on a cents-per-kilowatt-hour basis.

(4) Each electric distribution company shall conduct an annual solicitation or solicitations, as determined by the authority, for the purchase of energy and renewable energy certificates produced by eligible generation projects under this subsection over the duration of each applicable tariff. Generation projects eligible pursuant to subparagraphs (A) and (B) of subdivision (2) of this subsection shall be sized so as not to exceed the load at the customer's individual electric

meter or a set of electric meters, when such meters are combined for billing purposes, from the electric distribution company providing service to such customer, as determined by such electric distribution company, unless such customer is a state, municipal or agricultural customer, then such generation project shall be sized so as not to exceed the load at such customer's individual electric meter or a set of electric meters at the same customer premises, when such meters are combined for billing purposes, and the load of up to five state, municipal or agricultural beneficial accounts, as defined in section 16-244u, as amended by this act, identified by such state, municipal or agricultural customer, and such state, municipal or agricultural customer may include the load of up to five additional nonstate or municipal beneficial accounts, as defined in section 16-244u, as amended by this act, when sizing such generation project, provided such accounts are critical facilities, as defined in subdivision (2) of subsection (a) of section 16-243y, and are connected to a microgrid.

(5) The maximum selected purchase price of energy and renewable energy certificates on a cents-per-kilowatt-hour basis in any given solicitation shall not exceed such maximum selected purchase price for the same resources in the prior year's solicitation, unless the authority makes a determination that there are changed circumstances in any given year. For the first year solicitation issued pursuant to this subsection, the authority shall establish a cap for the selected purchase price for energy and renewable energy certificates on a cents-per-kilowatt-hour basis for any resources authorized under this subsection.

(6) The program requirements for shared clean energy facilities developed pursuant to subparagraph (C) of subdivision (1) of this subsection shall include, but not be limited to, the following:

(A) The department shall allow cost-effective projects of various nameplate capacities that may allow for the construction of multiple projects in the service area of each electric distribution company that operates within the state.

(B) The department shall determine the billing credit for any subscriber of a shared clean energy facility that may be issued through the electric distribution companies' monthly billing systems, and establish consumer protections for subscribers and potential subscribers of such a facility, including, but not limited to, disclosures to be made when selling or reselling a subscription.

(C) Such program shall utilize one or more tariff mechanisms with the electric distribution companies for a term not to exceed twenty years, subject to approval by the Public Utilities Regulatory Authority, to pay for the purchase of any energy products and renewable energy certificates produced by any eligible shared clean energy facility, or to deliver any billing credit of any such facility.

(D) The department shall limit subscribers to (i) low-income customers, (ii) moderate-income customers, (iii) small business customers, (iv) state or municipal customers, (v) commercial customers, and (vi) residential customers who can demonstrate, pursuant to criteria determined by the department in the program requirements recommended by the department and approved by the authority, that they are unable to utilize the tariffs offered pursuant to subsection (b) of this section.

(E) The department shall require that (i) not less than ten per cent of the total capacity of each shared clean energy facility is sold, given or provided to low-income customers, and (ii) in addition to the requirement of clause (i) of this subparagraph, not less than ten per cent of the total capacity of each shared clean energy facility is sold, given or provided to low-income customers, moderate-income customers or low-income service organizations.

(F) The department may allow preferences to projects that serve low-income customers and shared clean energy facilities that benefit customers who reside in environmental justice communities.

(G) The department may create incentives or other financing mechanisms to encourage participation by low-income customers.

(H) The department may require that not more than fifty per cent of the total capacity of each shared clean energy facility is sold to commercial customers.

(7) For purposes of this subsection:

(A) "Environmental justice community" has the same meaning as provided in subsection (a) of section 22a-20a;

(B) "Low-income customer" means an in-state retail end user of an electric distribution company (i) whose income does not exceed eighty per cent of the area median income as defined by the United States Department of Housing and Urban Development, adjusted for family size, or (ii) that is an affordable housing facility as defined in section 8-39a;

(C) "Low-income service organization" means a for-profit or nonprofit organization that provides service or assistance to low-income individuals;

(D) "Moderate-income customer" means an in-state retail end user of an electric distribution company whose income is between eighty per cent and one hundred per cent of the area median income as defined by the United States Department of Housing and Urban Development, adjusted for family size.

(b) (1) On or before **[**September 1, 2019**]** July 1, 2020, the authority shall initiate a proceeding to establish (A) tariffs for each electric distribution company pursuant to subdivision (2) of this subsection, (B) a rate for such tariffs, which may be based upon the results of one or more competitive solicitations issued pursuant to subsection (a) of this section, or on the average cost of installing the generation project and a reasonable rate of return that is just, reasonable and adequate, as determined by the authority, and shall be guided by the Comprehensive Energy Strategy prepared pursuant to section 16a-3d, and (C) the period of time that will be used for calculating the net amount of energy produced by a facility and not consumed, provided

the authority shall assess whether to incorporate time-of-use rates or other dynamic pricing and such period of time shall be either (i) in real time, (ii) in one day, **[**or**]** (iii) in any fraction of a day not to exceed one day, or (iv) in any period of time greater than one day up to and including one month. In such proceeding, the authority shall consider the findings of the study of the value of distributed energy resources conducted pursuant to section 6 of this act. The authority shall issue a final decision in such proceeding on or before July 1, 2021. The authority may modify such rate for new customers under this subsection based on changed circumstances and may establish an interim tariff rate prior to the expiration of the residential solar investment program pursuant to subsection (b) of section 16-245ff, as amended by this act, as an alternative to such program, provided any residential customer utilizing a tariff pursuant to this subsection at such customer's electric meter shall not be eligible for any incentives offered pursuant to section 16-245ff, as amended by this act, at the same such electric meter and any residential customer utilizing any incentives offered pursuant to section 16-245ff, as amended by this act, at such customer's electric meter shall not be eligible for a tariff pursuant to this subsection at the same such electric meter.

(2) **[**At the expiration of the residential solar investment program pursuant to subsection (b) of section 16-245ff**]** On and after January 1, 2022, each electric distribution company shall offer the following options to residential customers for the purchase of products generated from a Class I renewable energy source that is located on a customer's own premises and has a nameplate capacity rating of twenty-five kilowatts or less for a term not to exceed twenty years: (A) A tariff for the purchase of all energy and renewable energy certificates on a cents-per-kilowatt-hour basis; and (B) a tariff for the purchase of any energy produced and not consumed in the period of time established by the authority pursuant to subparagraph (C) of subdivision (1) of this subsection and all renewable energy certificates generated by such facility on a cents-per-kilowatt-hour basis. A residential customer shall select either option authorized pursuant to

subparagraph (A) or (B) of this subdivision, consistent with the requirements of this section. Such generation projects shall be sized so as not to exceed the load at the customer's individual electric meter from the electric distribution company providing service to such customer, as determined by such electric distribution company. For purposes of this section, "residential customer" means a customer of a single-family dwelling or a multifamily dwelling consisting of two to four units.

(c) (1) (A) The aggregate total megawatts available to all customers utilizing a procurement and tariff offered by electric distribution companies pursuant to subsection (a) of this section shall be up to eighty-five megawatts in year one and increase by up to an additional eighty-five megawatts per year in each of the years two through six of such a tariff, provided the total megawatts available to customers eligible under subparagraph (A) of subdivision (2) of subsection (a) of this section shall not exceed ten megawatts per year, the total megawatts available to customers eligible under subparagraph (B) of subdivision (2) of subsection (a) of this section shall not exceed fifty megawatts per year and the total megawatts available to customers eligible under subparagraph (C) of subdivision (2) of subsection (a) of this section shall not exceed twenty-five megawatts per year. The authority shall monitor the competitiveness of any procurements authorized pursuant to subsection (a) of this section and may adjust the annual purchase amount established in this subsection or other procurement parameters to maintain competitiveness. Any megawatts not allocated in any given year shall not roll into the next year's available megawatts. The obligation to purchase energy and renewable energy certificates shall be apportioned to electric distribution companies based on their respective distribution system loads, as determined by the authority.

(B) The electric distribution companies shall offer any tariffs developed pursuant to subsection (b) of this section for six years. At the end of the tariff term pursuant to subparagraph (B) of subdivision (2) of subsection (b) of this section, residential customers that elected

the option pursuant to said subparagraph shall be credited all cents-per-kilowatt-hour charges pursuant to the tariff rate for such customer for energy produced by the Class I renewable energy source against any energy that is consumed in real time by such residential customer.

(C) The authority shall establish tariffs for the purchase of energy on a cents-per-kilowatt-hour basis at the expiration of any tariff terms authorized pursuant to this section.

(2) At the beginning of year six of the procurements authorized pursuant to this subsection, the department, in consultation with the authority, shall assess the tariff offerings pursuant to this section and determine if such offerings are competitive compared to the cost of the technologies. The department shall report, in accordance with section 11-4a, the results of such determination to the General Assembly.

(3) For any tariff established pursuant to this section, the authority shall examine how to incorporate the following energy system benefits into the rate established for any such tariff: (A) Energy storage systems that provide electric distribution benefits, (B) location of a facility on the distribution system, (C) time-of-use rates or other dynamic pricing, and (D) other energy policy benefits identified in the Comprehensive Energy Strategy prepared pursuant to section 16a-3d.

(d) In accordance with subsection (h) of section 16-245a, the authority shall determine which of the following two options is in the best interest of ratepayers and shall direct each electric distribution company to either (1) retire the renewable energy certificates it purchases pursuant to subsections (a) and (b) of this section on behalf of all ratepayers to satisfy the obligations of all electric suppliers and electric distribution companies providing standard service or supplier of last resort service pursuant to section 16-245a, or (2) sell such renewable energy certificates into the New England Power Pool Generation information system renewable energy credit market. The authority shall establish procedures for the retirement of such renewable energy certificates. Any net revenues from the sale of

products purchased in accordance with this section shall be credited to customers through a nonbypassable fully reconciling component of electric rates for all customers of the electric distribution company.

(e) The costs incurred by an electric distribution company pursuant to this section shall be recovered on a timely basis through a nonbypassable fully reconciling component of electric rates for all customers of the electric distribution company. Any net revenues from the sale of products purchased in accordance with any tariff offered pursuant to this section shall be credited to customers through the same fully reconciling rate component for all customers of such electric distribution company.

Sec. 4. Subsection (b) of section 16-245ff of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(b) The Connecticut Green Bank, established pursuant to section 16-245n, shall structure and implement a residential solar investment program established pursuant to this section that shall support the deployment of not more than **[**three hundred**]** three hundred fifty megawatts of new residential solar photovoltaic installations located in this state on or before (1) December 31, 2022, or (2) the deployment of **[**three hundred**]** three hundred fifty megawatts of residential solar photovoltaic installation, in the aggregate, whichever occurs sooner, provided the bank shall not approve direct financial incentives under this section for more than one hundred megawatts of new qualifying residential solar photovoltaic systems, in the aggregate, between July 2, 2015, and April 1, 2016. The procurement and cost of such program shall be determined by the bank in accordance with this section.

Sec. 5. Subsection (a) of section 16-245gg of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(a) Not later than July 1, 2016, the Connecticut Green Bank shall negotiate and develop master purchase agreements with each electric

distribution company. Each such agreement shall require the electric distribution company to purchase, annually, fifteen-year tranches of solar home renewable energy credits produced by qualifying residential solar photovoltaic systems. Each electric distribution company's annual obligation to purchase fifteen-year tranches of solar home renewable energy credits produced by qualifying residential solar photovoltaic systems begins on the date that the Public Utilities Regulatory Authority approves the master purchase agreement pursuant to subsection (e) of this section and the obligation to purchase additional fifteen-year tranches expires on December 31, 2022, or after the deployment of **[**three hundred**]** three hundred fifty megawatts of residential solar photovoltaic installation, in the aggregate, whichever occurs earlier.

Sec. 6. (NEW) (*Effective from passage*) On or before July 1, 2019, the Department of Energy and Environmental Protection and the Public Utilities Regulatory Authority shall initiate a proceeding to jointly study the value of distributed energy resources. On or before July 1, 2020, the department and the authority shall jointly report the findings of such study, in accordance with the provisions of section 11-4a of the general statutes, to the joint standing committee of the General Assembly having cognizance of matters relating to energy.

Sec. 7. Subsection (e) of section 16-244u of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(e) (1) On or before October 1, 2013, the Public Utilities Regulatory Authority shall conduct a proceeding to develop the administrative processes and program specifications, including, but not limited to, a cap of **[**ten**]** twenty million dollars per year apportioned to each electric distribution company based on consumer load, for credits provided to beneficial accounts pursuant to subsection (b) of this section and payments made pursuant to subsection (c) of this section, provided the municipal, state and agricultural customer hosts, each in the aggregate, and the designated beneficial accounts of such customer hosts, shall

receive not more than forty per cent of the dollar amount established pursuant to this subdivision.

(2) In addition to the provisions of subdivision (1) of this subsection, the authority shall authorize six million dollars per year for municipal customer hosts, apportioned to each electric distribution company based on consumer load, for credits provided to beneficial accounts pursuant to subsection (b) of this section and payments made pursuant to subsection (c) of this section where such municipal customer hosts have: (A) Submitted an interconnection application to an electric distribution company on or before April 13, 2016, and (B) submitted a virtual net metering application to an electric distribution company on or before April 13, 2016.

(3) In addition to the provisions of subdivisions (1) and (2) of this subsection, the authority shall authorize, apportioned to each electric distribution company based on consumer load for credits provided to beneficial accounts pursuant to subsection (b) of this section and payments made pursuant to subsection (c) of this section three million dollars per year for agricultural customer hosts, provided each agricultural customer host utilizes a virtual net metering facility that is an anaerobic digestion Class I renewable energy source and not less than fifty per cent of the dollar amount for such agricultural customer hosts established under this subparagraph is utilized by anaerobic digestion facilities located on dairy farms that complement such farms' nutrient management plans, as certified by the Department of Agriculture, and that have a goal of utilizing one hundred per cent of the manure generated on such farm.

Sec. 8. (NEW) (*Effective from passage*) (a) As used in this section, "Class I renewable energy source" has the same meaning as provided in section 16-1 of the general statutes.

(b) (1) On or before December 1, 2020, the Department of Transportation shall conduct a preliminary screening of land owned by said department. Such screening shall identify any such land that

may be suitable for the siting of Class I renewable energy sources and shall evaluate the suitability of such land. Said department shall submit an inventory of any such land said department determines is suitable for the siting of Class I renewable energy sources to the Department of Energy and Environmental Protection.

(2) The Department of Energy and Environmental Protection shall conduct an analysis of any land included in the inventory submitted to said department pursuant to subdivision (1) of this subsection. Said department's analysis shall include, but not be limited to, a technical, legal and financial feasibility analysis and shall consider (A) setback requirements, (B) access to the land, (C) physical and environmental characteristics of the land, (D) the development characteristics of a Class I renewable energy source, (E) current and future transportation needs, (F) the eligibility of Class I renewable energy sources that may be installed on the land to participate in net metering pursuant to section 16-243h of the general statutes, as amended by this act, virtual net metering pursuant to section 16-244u of the general statutes, as amended by this act, renewable energy tariffs pursuant to section 16-244z of the general statutes, as amended by this act, and grid-scale solicitation programs pursuant to title 16a of the general statutes, and (G) other relevant feasibility factors.

(c) In any solicitation issued by the Department of Energy and Environmental Protection for Class I renewable energy sources after said department completes the analysis pursuant to subdivision (2) of subsection (b) of this section, said department may provide selection preference to proposals that use land that is (1) included on the inventory submitted pursuant to subdivision (1) of subsection (b) of this section, and (2) determined to be feasible for the siting of Class I renewable energy sources by said department pursuant to the analysis conducted pursuant to subdivision (2) of subsection (b) of this section.

Sec. 9. Subsection (b) of section 16a-3a of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(b) On or before January 1, [2012] 2020, and biennially thereafter, the Commissioner of Energy and Environmental Protection, in consultation with the electric distribution companies, shall prepare an assessment of (1) the energy and capacity requirements of customers for the next three, five and ten years, (2) the manner of how best to eliminate growth in electric demand, (3) how best to level electric demand in the state by reducing peak demand and shifting demand to off-peak periods, (4) the impact of current and projected environmental standards, including, but not limited to, those related to greenhouse gas emissions and the federal Clean Air Act goals and how different resources could help achieve those standards and goals, (5) energy security and economic risks associated with potential energy resources, and (6) the estimated lifetime cost and availability of potential energy resources.

Sec. 10. Subsection (i) of section 16a-3a of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(i) For the Integrated Resources Plan next approved after June 14, 2018, the department shall [consider] include recommendations for the creation of a portfolio standard for thermal energy that may include, but not be limited to, biodiesel that is blended into home heating oil, provided the department shall consult with representatives of the heating oil industry and biodiesel producers during [such consideration. For any Integrated Resources Plan after the approval of the next approved plan, the department may consider the creation of such portfolio standard] the development of such recommendations.

Sec. 11. Section 16a-38k of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(a) Notwithstanding any provision of the general statutes, any (1) new construction of a state facility that is projected to cost five million dollars, or more, and for which all budgeted project bond funds are allocated by the State Bond Commission on or after January 1, 2008, (2)

renovation of a state facility that is projected to cost two million dollars or more, of which two million dollars or more is state funding, approved and funded on or after January 1, 2008, (3) new construction of a facility that is projected to cost five million dollars, or more, of which two million dollars or more is state funding, and is authorized by the General Assembly pursuant to chapter 173 on or after January 1, 2009, and (4) renovation of a public school facility as defined in subdivision (18) of section 10-282 that is projected to cost two million dollars or more, of which two million dollars or more is state funding, and is authorized by the General Assembly pursuant to chapter 173 on or after January 1, 2009, shall comply with the regulations described in subsection (b) of this section, **[**until the regulations described in subsection (c) of this section are adopted**]** provided any regulations adopted pursuant to this section before the effective date of this section shall remain in effect until the regulations described in subsection (b) of this section are adopted. The Commissioner of Energy and Environmental Protection, in consultation with the Commissioner of Administrative Services and the Institute for Sustainable Energy, shall exempt any facility from complying with the regulations adopted pursuant to subsection (b) **[**or (c)**]** of this section if the Commissioner of Energy and Environmental Protection, in consultation with the Commissioner of Administrative Services and the Secretary of the Office of Policy and Management, finds, in a written analysis, that the measures needed to comply with the building construction standards are not cost effective, as defined in subdivision (8) of subsection (a) of section 16a-38. Nothing in this section shall be construed to require the redesign of any new construction of a state facility that is designed in accordance with the silver building rating of the Leadership in Energy and Environmental Design's rating system for new commercial construction and major renovation projects, as established by the United States Green Building Council, or an equivalent standard, including, but not limited to, a two-globe rating in the Green Globes USA design program, provided the design for such facility was initiated or completed prior to the adoption of the regulations described in subsection (b) of this section. For purposes of subdivisions

(1) and (2) of this subsection, a state facility shall not include a salt shed, parking garage or any type of maintenance facility, provided such shed, garage or facility has incorporated best energy efficiency standards to the extent economically feasible.

(b) Not later than January 1, **[**2007**]** 2020, the Commissioner of Energy and Environmental Protection, in consultation with the Commissioner of Administrative Services, shall adopt regulations, in accordance with the provisions of chapter 54, to adopt state building construction standards that **[**are consistent with or exceed the silver building rating of the Leadership in Energy and Environmental Design's rating system for new commercial construction and major renovation projects, as established by the United States Green Building Council, including energy standards that exceed those set forth in the 2004 edition of the American Society of Heating, Ventilating and Air Conditioning Engineers (ASHRAE) Standard 90.1 by not less than twenty per cent, or an equivalent standard, including, but not limited to, a two-globe rating in the Green Globes USA design program**]** (1) are based on a nationally recognized model for sustainable construction codes that promotes the construction of high performance green buildings that have reduced emissions, have enhanced building occupant health and comfort, are designed to conserve water resources, are designed to promote sustainable and regenerative materials cycles and provide enhanced resilience to natural, technological and human-caused hazards, and (2) include a standard for inclusion of electric vehicle charging stations, and thereafter update such regulations as the Commissioner of Energy and Environmental Protection deems necessary.

**[**(c) Not later than January 1, 2015, the Commissioner of Energy and Environmental Protection, in consultation with the Commissioner of Administrative Services, shall adopt regulations, in accordance with chapter 54, to adopt state building construction standards for facilities described in subsection (a) of this section that achieve at least seventy-five points on the United States Environmental Protection Agency's national energy performance rating system, as determined by said

agency's Energy Star Target Finder tool. Such regulations shall include a standard for inclusion of electric vehicle charging stations. The Commissioner of Energy and Environmental Protection may update such regulations as the commissioner deems necessary.

(d) The Commissioner of Energy and Environmental Protection, in consultation with the Commissioner of Administrative Services and the Institute for Sustainable Energy, shall exempt any facility from complying with the regulations adopted pursuant to subsection (c) of this section if such facility cannot be defined as an eligible building type, as determined by the Energy Star Target Finder tool. Any such exempt facility shall exceed the energy building construction standards set forth in the 2007 edition of the American Society of Heating, Ventilating and Air Conditioning Engineers (ASHRAE) Standard 90.1 by not less than twenty per cent, or adhere to the current State Building Code, whichever is more stringent.**]**

Sec. 12. Section 16-18a of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2019*):

(a) In the performance of their duties the Public Utilities Regulatory Authority, the Department of Energy and Environmental Protection and the Office of Consumer Counsel may retain consultants to assist their staffs in proceedings before the authority by providing expertise in areas in which staff expertise does not currently exist or when necessary to supplement existing staff expertise. In any case where the authority, the Department of Energy and Environmental Protection or the Office of Consumer Counsel determines that the services of a consultant are necessary or desirable, the authority shall (1) allow opportunity for the parties and participants to the proceeding for which the services of a consultant are being considered to comment regarding the necessity or desirability of such services, (2) upon the request of a party or participant to the proceeding for which the services of a consultant are being considered, hold a hearing, and (3) limit the reasonable and proper expenses for such services to not more than two hundred thousand dollars for each agency per proceeding

involving a public service company, telecommunications company, electric supplier or person seeking certification to provide telecommunications services pursuant to chapter 283, with more than fifteen thousand customers, and to not more than fifty thousand dollars for each agency per proceeding involving such a company, electric supplier or person with less than fifteen thousand customers, provided the authority, the Department of Energy and Environmental Protection or the Office of Consumer Counsel may exceed such limits for good cause. In the case of multiple proceedings conducted to implement the provisions of this section and sections 16-1, 16-19, 16-19e, 16-22, 16-247a to 16-247c, inclusive, 16-247e to 16-247h, inclusive, and 16-247k and subsection (e) of section 16-331, the authority, the Department of Energy and Environmental Protection or the Office of Consumer Counsel may exceed such limits, but the total amount for all such proceedings shall not exceed the aggregate amount which would be available pursuant to this section. All reasonable and proper expenses, as defined in subdivision (3) of this section, shall be borne by the affected company, electric supplier or person and shall be paid by such company, electric supplier or person at such times and in such manner as the authority, the Department of Energy and Environmental Protection or the Office of Consumer Counsel directs. All reasonable and proper costs and expenses, as defined in subdivision (3) of this section, shall be recognized by the authority for all purposes as proper business expenses of the affected company, electric supplier or person. The providers of consultant services shall be selected by the authority, the Department of Energy and Environmental Protection or the Office of Consumer Counsel and shall submit written findings and recommendations to the authority, the Department of Energy and Environmental Protection or the Office of Consumer Counsel, as the case may be, which shall be made part of the public record.

(b) Notwithstanding any provision of the general statutes, the authority, the Department of Energy and Environmental Protection and the Office of Consumer Counsel shall not retain any consultant

under subsection (a) of this section in connection with any proceeding involving telecommunications if such consultant, at the time the consultant would be retained, is serving as a consultant to a certified telecommunications provider or a telephone company that would be affected by such proceeding, unless each party and intervenor to such proceeding agrees in writing to waive the provisions of this subsection.

(c) The Department of Energy and Environmental Protection, in consultation with the Public Utilities Regulatory Authority and the Office of Consumer Counsel, may retain consultants to assist its staff by providing expertise in areas in which staff expertise does not currently exist or to supplement staff expertise for any proceeding before or in any negotiation with the Federal Energy Regulatory Commission, the United States Department of Energy, the United States Nuclear Regulatory Commission, the United States Securities and Exchange Commission, the Federal Trade Commission, the Federal Communications Commission or the United States Department of Justice. The Public Utilities Regulatory Authority, in consultation with the Office of Consumer Counsel, may retain consultants to assist its staff by providing expertise in areas in which staff expertise does not currently exist or to supplement staff expertise for any proceeding before or in any negotiation with the Federal Communications Commission. All reasonable and proper expenses of any such consultants shall be borne by the public service companies, certified telecommunications providers, holders of a certificate of video franchise authority, electric suppliers or gas registrants affected by the decisions of such proceeding and shall be paid at such times and in such manner as the authority directs, provided such expenses (1) shall be apportioned in proportion to the revenues of each affected entity as reported to the authority pursuant to section 16-49 for the most recent fiscal year, and (2) shall not exceed two and one-half million dollars per calendar year, including any appeals thereof, unless the authority finds good cause for exceeding the limit. The authority shall recognize all such expenses as proper business expenses of the affected entities for ratemaking purposes pursuant to section 16-19e, if

applicable.

Sec. 13. Section 16-244e of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(a) An electric distribution company shall not own or operate generation assets, except as provided in this section and sections 16-43d, 16-243m, 16-243u, 16a-3b and 16a-3c, provided nothing in this section or in section 16-244w shall be interpreted to prohibit or limit the ability of an electric distribution company from building, owning or operating an energy storage system.

(b) Each electric distribution company shall provide all customers with a bill that separates the electric generation services component of those charges.

(c) The Public Utilities Regulatory Authority may authorize an electric distribution company to recover its prudently incurred costs and investments for any energy storage system such electric distribution company builds, owns or operates through a fully reconciling component of electric rates for all customers of electric distribution companies, until the electric distribution company's next rate case, at which time such costs and investments shall be recoverable through base distribution rates consistent with the principles set forth in sections 16-19 and 16-19e.

Sec. 14. Subdivision (2) of subsection (k) of section 16-243v of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(2) Not later than September 1, 2013, the electric distribution and gas companies shall develop a residential furnace or boiler replacement and propane fuel tank purchase program funded by the systems benefits charge pursuant to section 16-245*l* in a manner that minimizes the impact on ratepayers. Said program shall be reviewed and approved or modified by the Department of Energy and Environmental Protection, in consultation with the Energy

Conservation Management Board, within sixty days of receipt of the plan for said program. Said program shall include a contract for retention of a third-party administrator to become effective upon approval of the program by the department. Said program shall continue until the end of the **[**sixth**]** eleventh year of the program. On or before January 1, 2014, the electric distribution and gas companies shall retain the services of a third-party administrator with expertise in developing, implementing and administering residential lending programs, including credit evaluation, to provide financing for improvement projects by property owners, loan servicing and program administration. The third-party administrator shall, in conjunction with the electric distribution companies and gas companies, develop the program. On and after December 29, 2015, said program shall be amended to provide such residential lending to residential retail end use customers who seek to purchase either an underground or above ground propane fuel tank, including, but not limited to, a propane fuel tank that the residential retail end use customer leases.

Sec. 15. (NEW) (*Effective from passage*) (a) For the purposes of this section:

(1) "Farm-generated organic waste" means waste associated with animal feeding operations including, but not limited to, animal bedding, manure, urine, silage, leachate, wastewaters associated with egg or dairy production, animal feed waste and barnyard runoff; and

(2) "Animal feeding operation" means a lot or facility on a farm, other than an aquatic animal production facility, where animals have been, are currently, or will be stabled or confined and fed or maintained for a total of forty-five days or more in any twelve-month period and where crops, vegetation, forage growth or post-harvest residues are not sustained in the normal growing season over any portion of such lot or facility.

(b) An anaerobic digestion facility shall not be required to obtain a

permit to construct and operate pursuant to section 22a-208a of the general statutes, as amended by this act, if such facility is collocated with an animal feeding operation conducted on land used for the purpose of farming, as defined in section 1-1 of the general statutes, provided that:

(1) The feed stock for such anaerobic digestion facility is at least fifty per cent by volume farm-generated organic waste from an animal feeding operation and not more than five per cent by volume food scraps, food processing residuals and soiled or unrecyclable paper;

(2) The discharge of such anaerobic digestion facility that is not energy end products shall be beneficially used in accordance with the following: (A) The solid material end products are used for (i) animal bedding, (ii) soil or soil amendment, (iii) fertilizer, or (iv) other value-added products; and (B) the liquid material end products are used as fertilizer. Any land application in the state of any such discharge, including, but not limited to, phosphorus, shall be applied at an agronomic rate that is consistent with the nutrient management plan of the farm on which such anaerobic digestion facility is located; and

(3) Annually, on or before July thirty-first of each year, each animal feeding operation, that is collocated with an anaerobic digestion facility that is operating pursuant to this section without the permit that would otherwise be required pursuant to section 22a-208a of the general statutes, as amended by this act, shall submit to the Commissioner of Energy and Environmental Protection, in a form prescribed by the commissioner, the amount of farm-generated organic waste that is processed by such anaerobic digestion facility and shall indicate the amount of waste processed from such animal feeding operation and from other sources.

(c) The Commissioner of Agriculture may inspect anaerobic digestion facilities that are operating pursuant to this section without the permit that would otherwise be required pursuant to section 22a-208a of the general statutes, as amended by this act, to ensure that such

anaerobic digestion facilities are in compliance with subdivision (1) of subsection (b) of this section. If, in the course of conducting such inspection, the commissioner finds that any such facilities are not in compliance with such subdivision, the commissioner shall report such findings to the Commissioner of Energy and Environmental Protection.

(d) If the Commissioner of Energy and Environmental Protection determines that (1) an anaerobic digestion facility that is operating pursuant to this section without the permit that would otherwise be required pursuant to section 22a-208a of the general statutes, as amended by this act, is not collocated with the operation of an animal feeding operation conducted on land used for the purpose of farming, or (2) such anaerobic digestion facility is processing more than five per cent by volume food scraps, food processing residuals and soiled or unrecyclable paper, the operator of such anaerobic digestion facility shall apply for a permit from the commissioner pursuant to section 22a-208a of the general statutes, as amended by this act, not later than five days after receiving notice of the commissioner's determination pursuant to this subsection. If such application for a permit pursuant to section 22a-208a of the general statutes, as amended by this act, is denied, such anaerobic digestion facility shall close not later than five days after receiving notice of such denial.

(e) The commissioner may adopt regulations, in accordance with the provisions of chapter 54 of the general statutes, to carry out the purposes of this section.

Sec. 16. Subsection (b) of section 22a-208a of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(b) **[**No**]** Except as provided in section 15 of this act, no person or municipality shall establish, construct or operate a solid waste facility without a permit issued by the commissioner under this section. An application for such permit shall be submitted on a form prescribed by

the commissioner, include such information as the commissioner may require, including, but not limited to, a closure plan for such facility, and be accompanied by a fee prescribed in regulations adopted in accordance with chapter 54. Notwithstanding any provision of the general statutes or any regulation adopted pursuant to said statutes, references to a permit to construct or a permit to operate in a regulation adopted pursuant to section 22a-209 shall be deemed to mean a permit as required by this subsection. The applicant shall send a written notification of any application for such permit to the chief elected official of each municipality in which the proposed facility is to be located, within five business days of the date on which any such application is filed.

Sec. 17. (NEW) (*Effective from passage*) (a) (1) The Commissioner of Energy and Environmental Protection, in consultation with the procurement manager identified in subsection (l) of section 16-2 of the general statutes, the Office of Consumer Counsel and the Attorney General, may solicit proposals, in one solicitation or multiple solicitations, from providers of energy derived from anaerobic digestion.

(2) In responding to any solicitations issued pursuant to this section, a bidder shall submit a proposal or proposals for facilities that are animal feeding operations and collocated on land used for the purpose of farming, as defined in subsection (q) of section 1-1 of the general statutes. For purposes of this subsection, "animal feeding operation" has the same meaning as provided in section 15 of this act.

(b) If the commissioner finds such proposals to be in the interest of ratepayers, including, but not limited to, the delivered price of such sources, and consistent with the requirements to reduce greenhouse gas emissions in accordance with section 22a-200a of the general statutes, and in accordance with the policy goals outlined in the Comprehensive Energy Strategy, adopted pursuant to section 16a-3d of the general statutes, and in accordance with the policy goals outlined in the state-wide solid waste management plan developed

pursuant to section 22a-241a of the general statutes, the commissioner may select proposals from such resources that have a total nameplate capacity rating of not more than ten megawatts in the aggregate. The commissioner may, on behalf of all customers of electric distribution companies, direct the electric distribution companies to enter into power purchase agreements for energy, capacity and environmental attributes, or any combination thereof, for periods of not more than twenty years.

(c) Certificates issued by the New England Power Pool Generation Information System procured by an electric distribution company pursuant to this section may be: (1) Sold into the New England Power Pool Generation Information System renewable energy credit market to be used by any electric supplier or electric distribution company to meet the requirements of section 16-245a of the general statutes, provided the revenues from such sale are credited to electric distribution company customers as described in this section; or (2) retained by the electric distribution company to meet the requirements of section 16-245a of the general statutes. In considering whether to sell or retain such certificates, the company shall select the option that is in the best interest of such company's ratepayers.

(d) Any such agreement shall be subject to review and approval by the Public Utilities Regulatory Authority, which review shall commence upon the filing of the signed power purchase agreement with the authority. The authority shall issue a decision on such agreement not later than sixty days after such filing. In the event the authority does not issue a decision within sixty days after such agreement is filed with the authority, the agreement shall be deemed approved.

(e) The net costs of any such agreement, including costs incurred by the electric distribution company under the agreement and reasonable costs incurred by the electric distribution company in connection with the agreement, shall be recovered on a timely basis through a fully reconciling component of electric rates for all customers of the electric

distribution company. Any net revenues from the sale of products purchased in accordance with long-term contracts entered into pursuant to this section shall be credited to customers through the same fully reconciling rate component for all customers of the contracting electric distribution company. The commissioner may hire consultants with expertise in quantitative modeling of electric and gas markets to assist in implementing this section, including, but not limited to, the evaluation of proposals submitted pursuant to this section. All reasonable costs associated with the commissioner's solicitation and review of proposals pursuant to this section shall be recoverable through the same fully reconciling rate component for all customers of the electric distribution companies.

Sec. 18. (*Effective from passage*) On or before October 1, 2019, the Public Utilities Regulatory Authority shall initiate a docket to define and adopt a gas quality interconnection standard for biogas derived from the decomposition of farm-generated organic waste or source-separated organic material that has been processed through gas conditioning systems to remove impurities, including, but not limited to, water, carbon dioxide and hydrogen sulfide, that will make such biogas of a quality suitable for injection into the natural gas distribution system in the state. Such docket shall also include (1) cleanliness standards for such biogas, and (2) a process by which producers of such biogas may request and be approved for interconnection to the natural gas distribution system in the state. The authority shall issue a final decision in such docket on or before September 1, 2021.

Sec. 19. (NEW) (*Effective July 1, 2019*) (a) As used in this section and section 10a-55g of the general statutes, as amended by this act:

(1) "Green jobs" has the same meaning as provided in section 10a-55d of the general statutes;

(2) "Green technology" has the same meaning as provided in section 10a-55d of the general statutes; and

(3) "Career ladder" means a description of the progression from an entry level position to higher levels of pay, skill, responsibility or authority.

(b) Not later than January 1, 2020, the Office of Workforce Competitiveness, in consultation with the Office of Higher Education, Department of Education, Labor Department, Department of Energy and Environmental Protection, regional workforce development boards and employers, shall, within available appropriations, establish a career ladder for jobs in the green technology industry, including, but not limited to, a listing of (1) careers at each level of the green technology industry and the requisite level of education and the salary offered for such career, (2) all course, certificate and degree programs in green jobs offered by technical education and career schools within the Technical Education and Career System and institutions of higher education in the state, and (3) jobs available in the green technology industry in the state. The Office of Workforce Competitiveness shall update the green jobs career ladder established pursuant to this section on an as needed basis.

Sec. 20. Section 10a-55g of the general statutes is repealed and the following is substituted in lieu thereof (*Effective July 1, 2019*):

**[**The**]** Not later than July 1, 2020, the Office of Higher Education **[**, in consultation with the Department of Education,**]** and the Labor Department shall **[**annually prepare and**]** each publish on **[**the Office of Higher Education's web site a list of every green jobs course and green jobs certificate and degree program offered by technical education and career schools and public institutions of higher education**]** their respective Internet web sites the career ladder for jobs in the green technology industry established and updated by the Office of Workforce Competitiveness in accordance with section 19 of this act and an inventory of green jobs related equipment used by **[**such**]** technical education and career schools and institutions of higher education.

| This act shall take effect as follows and shall amend the following sections: | | |
|---|---|---|
| Section 1 | *from passage* | 16-243h |
| Sec. 2 | *from passage* | 16-244r(c) |
| Sec. 3 | *from passage* | 16-244z |
| Sec. 4 | *from passage* | 16-245ff(b) |
| Sec. 5 | *from passage* | 16-245gg(a) |
| Sec. 6 | *from passage* | New section |
| Sec. 7 | *from passage* | 16-244u(e) |
| Sec. 8 | *from passage* | New section |
| Sec. 9 | *from passage* | 16a-3a(b) |
| Sec. 10 | *from passage* | 16a-3a(i) |
| Sec. 11 | *from passage* | 16a-38k |
| Sec. 12 | *October 1, 2019* | 16-18a |
| Sec. 13 | *from passage* | 16-244e |
| Sec. 14 | *from passage* | 16-243v(k)(2) |
| Sec. 15 | *from passage* | New section |
| Sec. 16 | *from passage* | 22a-208a(b) |
| Sec. 17 | *from passage* | New section |
| Sec. 18 | *from passage* | New section |
| Sec. 19 | *July 1, 2019* | New section |
| Sec. 20 | *July 1, 2019* | 10a-55g |

*The following Fiscal Impact Statement and Bill Analysis are prepared for the benefit of the members of the General Assembly, solely for purposes of information, summarization and explanation and do not represent the intent of the General Assembly or either chamber thereof for any purpose. In general, fiscal impacts are based upon a variety of informational sources, including the analyst's professional knowledge. Whenever applicable, agency data is consulted as part of the analysis, however final products do not necessarily reflect an assessment from any specific department.*

## *OFA Fiscal Note*

***State Impact:*** See Below

***Municipal Impact:*** None

The bill as amended makes various changes to existing renewable energy regulations, requires the Department of Energy and Environmental Protection to study energy topics and analyze potential sites for renewable energy, and establishes a green jobs ladder.

**Sections 1-5** make changes to various residential renewable energy programs, including 1) changing the current status of net metering for residential customers that generate renewable energy, 2) extending procurement of renewable energy credits by electric distribution companies from eight to 10 years, 3) delaying the start of a new tariff-based system for energy procurements and 4) expanding the Connecticut Green Bank's solar investment program. These sections have no fiscal impact.

**Section 6** requires the Department of Energy and Environmental Protection (DEEP) and the Public Utilities Regulatory Authority (PURA) to jointly study the value of distributed energy resources. It is expected that both entities can fulfill this requirement within existing staffing and resources.

**Section 8** of the bill requires the Department of Transportation to screen their properties that may be suitable for Class I renewable energy sources, and requires DEEP to perform a feasibility analysis for each property for the purpose of siting sources. It is anticipated that

DEEP can conduct analysis of potential sites within available staffing and resources.

**Section 11** requires DEEP, in consultation with the Department of Administrative Services, to develop new sustainability standards. It is expected they can develop these standards within existing staffing and resources.

**Sections 20-21** require the Office of Workforce Competitiveness (OWC) to establish and make available for publishing a green jobs career ladder, and results in a General Fund cost of $179,243 in FY 20 and $123,411 in FY 21.

In order to identify careers in the green technology industry and available jobs that actually produce green goods and services in Connecticut, the OWC would need to conduct a survey of such jobs. This results in a cost of $24,811 in FY 20 and $22,555 FY 21 for salary and fringe benefits for a part-time employee to manage the project, as well as a one-time cost of $60,000 in FY 20 only for a consultant ($50,000) and mailings and equipment ($10,000).

In addition to identifying the green careers and job openings, the Labor Department's Office of Research would need to gather and analyze current labor market information to establish a description of career progression from entry level to higher levels of pay, skill, responsibility, or authority as required under the bill. This requires one durational full-time Research Analyst I at a cost of $94,432 in FY 20 and $100,856 in FY 21 for salary and fringe benefits. [i]

**Sections 20-21** have an out years cost of less than $30,000 annually beginning in FY 22 to the OWC to update the green jobs career ladder on an "as needed" basis as required under the bill.

The other sections in the bill as amended are not anticipated to have fiscal impact.

**Ratepayer Impact**

The bill as amended, including sections of the bill not mentioned above, may increase costs to electric ratepayers, depending on how the various requirements and costs placed on electric distribution companies may be recovered by increasing rates on customers, and how the various changes to energy procurements may impact the electric market. The magnitude of any increased costs to ratepayers is unknown at this time.

"House A" struck the underlying bill and its associated impact, and established most of the aforementioned requirements.

### *The Out Years*

The annualized ongoing fiscal impact identified above would continue into the future subject to inflation.

**OLR Bill Analysis**

**HB 5002 (as amended by House "A")***

***AN ACT CONCERNING A GREEN ECONOMY AND ENVIRONMENTAL PROTECTION.***

TABLE OF CONTENTS:

§ 12 — DEEP CONSULTANTS
Expands DEEP's ability to retain consultants for certain state and federal proceedings

§ 13 — EDC OWNERSHIP OF STORAGE
Explicitly allows EDCs to own energy storage systems and allows them to recover from ratepayers prudently incurred costs for these systems

§ 14 — RESIDENTIAL FURNACES, BOILERS, AND PROPANE TANKS
Extends the EnergizeCT Heating Loan Program through 2024

§§ 15-18 — ANAEROBIC DIGESTION AT ANIMAL FEEDING OPERATIONS
Exempts certain anaerobic digestion facilities at animal feeding operations from DEEP permit requirements; allows the DEEP commissioner to procure up to 10 MW of energy and related products from such facilities; and requires PURA to establish interconnection standards for biogas derived from certain farm and other waste

§§ 19 & 20 — GREEN JOBS CAREER LADDER
Requires the Office of Workforce Competitiveness, in consultation with other entities, to establish a career ladder for jobs in the green technology industry and requires DOL and OHE to publish it on their websites

BACKGROUND

## SUMMARY

This bill makes various changes to energy-related statutes and programs. These changes include:

1. extending existing renewable energy programs, and, for new programs required under PA 18-50, delaying certain deadlines, allowing for a longer netting period, and requiring the Public Utilities Regulatory Authority (PURA) to study the value of distributed energy resources and incorporate their findings into aspects of these new programs;

2. requiring the Department of Transportation (DOT) and the Department of Energy and Environmental Protection (DEEP) to

identify and create an inventory of land suitable for siting certain renewable projects and allowing DEEP to give preference in certain procurements for proposals on such land;

3. extending or expanding other programs, including virtual net metering and the EnergizeCT Heating Loan Program; and

4. various other provisions, including allowing electric distribution companies (EDCs, i.e., Eversource and United Illuminating) to own energy storage systems, authorizing anaerobic digestion procurements, creating and publishing a "green jobs ladder," expanding DEEP's authorization to use consultants for certain proceedings, and establishing new construction requirements for certain buildings.

*House Amendment "A" replaces the underlying bill, which (1) authorized an anaerobic digestion procurement that was not specific to animal feeding operations and (2) required the Office of Policy and Management to study and report on the state's Lead by Example Program.

EFFECTIVE DATE: Various, see below.

## §§ 1-2 & 4-5 — EXTENSIONS OF EXISTING PROGRAMS

*Extends existing renewable energy programs, including traditional net metering, the LREC/ZREC program, and the Green Bank's Residential Solar Investment Program*

### *Traditional Net Metering Extension (§ 1)*

Historically, the state's net metering program has generally allowed customers who own certain renewable energy resources to earn billing credits when they generate more power than they use. These customers' generation and usage is netted on a monthly basis and the customers receive billing credits for their monthly excess generation at the retail electric rate (essentially "running the meter backwards").

Current law ends opportunities to begin this type of net metering for (1) residential customers when the Green Bank's Residential Solar Investment Program expires and (2) all other customers when PURA

approves the procurement plan for new zero-emission, low-emission, and shared clean energy program required under PA 18-50. The bill instead requires opportunities to begin this type of net metering to end for all types of customers on December 31, 2021.

Under current law, customers who begin traditional net metering before it sunsets may continue to do so until December 31, 2039, after which they will be subject to a PURA-determined rate. The bill extends this by two years to 2041 and specifies that customers that have a PURA-approved contract under the LREC/ZREC program (see below) before December 31, 2021, may similarly continue their net metering until 2041.

### *LREC/ZREC Extension (§ 2)*

Under the state's LREC/ZREC program, electric distribution companies (EDCs, i.e., Eversource and United Illuminating) must enter into 15-year contracts to procure $8 million in RECs from certain low-emission (L-REC) and zero emission (Z-REC) clean energy generation projects each year. The bill extends this requirement, which is currently scheduled to expire after 2019, for an additional two years.

As was required during each of the program's previous eight years, in years nine and ten the EDCs must annually enter into 15-year contracts to procure $8 million of renewable energy certificates (RECs). And as in the previous three years, in years nine and ten the bill allows EDCs to procure up to $4 million in RECs from Class I generation projects that are less than 1 megawatt (MW) in size and emit no pollutants. For the previous three years of the program, current law allowed EDCs to also procure up to $4 million in RECs from Class I technologies that are less than 2 MW in size and have low emissions (i.e., no more than 0.07 pounds per megawatt-hour (MWh) of nitrogen oxides, 0.10 pounds per MWh of carbon monoxide, 0.02 pounds per MWh of volatile organic compounds, and one grain (presumably of particulate matter) per 100 standard cubic feet). For the two extended years, the bill allows EDCs to procure an aggregate of up to $4 million in RECs from these low emission projects and Class I technologies that

use anaerobic digestion. (This provision also applies to years six through eight, but as these solicitations have already occurred, presumably the provision only affects years nine and ten in practice.) Under existing law, unchanged by the bill, all projects must be on the customer's side of the meter and serve the EDC's distribution system.

By law, any unallocated money for the program's procurements expires when PURA approves the procurement plan for the new zero-emission, low emission, and shared clean energy programs required under PA 18-50.

When this program began in 2012, the law established a $350 price cap per REC and allowed PURA to lower the cap by 3% to 7% annually in subsequent years. For contracts entered into in calendar years 2020 and 2021, the bill allows PURA to lower the price cap by 64% at least 90 days before EDC solicitation (i.e., the same cap that applied in 2019). As was the case for past program years, PURA must (1) provide notice and an opportunity for public comment and (2) consider such factors as the actual bid results from the most recent solicitation and reasonably foreseeable reductions in the cost of eligible technologies.

### *Residential Solar Investment Program Extension (§§ 4 & 5)*

The Residential Solar Investment Program, administered by the Connecticut Green Bank, offers financial incentives to purchase or lease certain residential solar photovoltaic systems and requires the EDCs to purchase the renewable energy credits produced through the program. Under current law, the program must expire on December 31, 2022, or when the program deploys 300 MW of residential solar photovoltaic installations, whichever occurs earlier. The bill increases, from 300 MW to 350 MW, the MW threshold that triggers the program's expiration.

EFFECTIVE DATE: Upon passage

## §§ 3 & 6 — NEW RENEWABLE ENERGY PROGRAMS AND STUDY

*Requires PURA to study the value of distributed energy resources and take findings into account when determining tariffs for new renewable programs required under PA 18-50; delays certain related deadlines; and allows for a longer netting period*

The law (as enacted by PA 18-50) generally requires DEEP and PURA to establish new tariff-based programs through which the EDCs would purchase energy and RECs from qualifying (1) low-emission, zero-emission, and shared clean energy facilities and (2) residential customers with clean energy facilities. In developing these programs, the agencies and EDCs must, among other things, develop (1) a procurement plan for the EDCs to procure qualifying energy and RECs and (2) the tariffs (detailed rate schedules and rules) under which energy and RECs would be purchased.

### *Value of Distributed Energy Resources Study (§ 6)*

The bill requires DEEP and PURA to open a proceeding to jointly study the value of distributed energy resources. They must report the study's findings to the Energy and Technology Committee by July 1, 2020. The bill also requires PURA to consider the study's findings when determining tariffs for certain new renewable energy programs established under PA 18-50 (see below).

### *Low-emission and Zero-emission Programs (§ 3)*

The law requires PURA to begin a proceeding to establish tariffs for the new low-emission and zero-emission projects. In this proceeding, PURA must establish the period of time that will be used to calculate the net amount of energy produced by a facility and not consumed, which must be (1) in real time (i.e., simultaneous generation and use); (2) one day; or (3) in any fraction of a day. The bill allows PURA to also establish a netting period that is greater than one day, up to and including one month. It also requires PURA to consider the findings of the bill's value of distributed generation study in the proceeding.

Current law requires the EDCs, by July 1, 2020, to begin soliciting and filing for PURA's approval the low-emission, zero-emission, and shared clean energy projects it selected under the procurement plans that are consistent with PURA-approved tariffs. The bill extends this

deadline to July 1, 2022.

### *Residential Program (§ 3)*

Current law similarly requires PURA to open a proceeding to establish tariffs for the new residential clean energy program. The bill delays the deadline for PURA to do this from September 1, 2019, to July 1, 2020.

As with the proceeding to establish low-emission and zero-emission tariffs, current law also requires PURA's proceeding for the residential tariffs to determine the period of time that will be used for calculating the net amount of energy produced by a facility and not consumed. The bill also (1) allows PURA to establish a netting period that is greater than one day, up to and including one month, and (2) requires PURA to consider the findings of the bill's value of distributed generation study in the proceeding.

The bill requires PURA to issue a final decision in the proceeding by July 1, 2021. The bill requires EDCs to offer the new tariffs to residential customers beginning January 1, 2022, rather than when the Green Bank's Residential Solar Investment Program expires.

EFFECTIVE DATE: Upon passage

## § 7 — VIRTUAL NET METERING

*Increases, from $10 million to $20 million, the amount of credits authorized under the state's virtual net metering program*

The bill increases, from $10 million to $20 million, the virtual net metering cap.

Under existing law, net metering allows an electric company customer who owns a renewable energy resource to earn billing credits from that company when the customer generates more power than he or she uses (essentially "running the meter backwards"). Virtual net metering allows the customer to share these credits to lower the electricity bills of other "beneficial accounts" the customer designates.

Existing law, unchanged by the bill, requires PURA to apportion credits authorized under the cap to EDCs based on their loads. Within the cap described above, each eligible customer type (municipal, state agency, and agricultural) is further limited to 40% of the allowed credits. Existing law has also authorized more credits above the cap for certain circumstances (e.g., anaerobic digestion for agricultural customers).

EFFECTIVE DATE: Upon passage

## § 8 — LAND INVENTORY

*Requires DOT to prepare an inventory of its land that is suitable for installation of Class I resources; requires DEEP to analyze DOT's land inventory; and allows DEEP to grant preference in certain procurements for proposals that use such land*

The bill requires DOT, by December 1, 2020, to (1) conduct a preliminary screening of land that it owns to identify any land suitable to site Class I renewable energy sources (e.g., wind and solar) and evaluate its suitability and (2) submit an inventory of such land to DEEP.

The bill requires DEEP to perform an analysis of land included in DOT's inventory that includes a technical, legal, and financial feasibility analysis and considers:

1. setback requirements;
2. access to the land;
3. the land's physical and environmental characteristics;
4. developmental characteristics of a Class I renewable energy source;
5. current and future transportation needs;
6. the eligibility of Class I renewable energy sources that may be installed on the land for net metering, virtual net metering, renewable energy tariffs, and grid-scale solicitation programs;

and

7. other relevant feasibility factors.

Existing law authorizes DEEP to solicit proposals for various types of Class I renewable energy sources and direct the EDCs to enter into contracts under selected proposals. Under the bill, for any solicitations issued after DEEP analyzes DOT's land inventory, DEEP may provide preference to proposals that use land included on DOT's inventory and determined by DEEP to be feasible for siting Class I renewable energy sources.

EFFECTIVE DATE: Upon passage

## §§ 9 & 10 — THERMAL ENERGY PORTFOLIO STANDARD

*Specifies that the next IRP is due January 1, 2020, and requires it to include recommendations for, rather than consider, creation of a portfolio standard for thermal energy*

The bill requires the next Integrated Resources Plan (IRP) to include recommendations for, rather than consider, creation of a portfolio standard for thermal energy. Current law allows DEEP's consideration of a thermal portfolio standard to include biodiesel blended into home heating oil and requires DEEP to consult with heating oil industry representatives and biodiesel producers during their consideration. The bill retains these provisions for DEEP's development of recommendations.

By law, DEEP, in consultation with the EDCs, develops the IRP every two years by reviewing the state's energy capacity and needs and developing a plan for procuring various energy resources (CGS § 16a-3a). The bill specifies that the next IRP is due by January 1, 2020.

EFFECTIVE DATE: Upon passage

## § 11 — STATE BUILDING CONSTRUCTION STANDARDS

*Establishes new requirements for DEEP regulations on energy efficiency for certain state-funded construction projects*

Existing law requires DEEP's regulations to establish construction

standards that apply to the following types of projects:

1. new state facility construction projected to cost at least $5 million for which all budgeted project bond funds are allocated by the State Bond Commission on or after January 1, 2008;

2. state facility renovation projected to cost at least $2 million in state funding, approved and funded after January 1, 2008;

3. new public school building construction projected to cost at least $5 million, of which at least $2 million is state funding authorized by the legislature on or after January 1, 2009; and

4. renovation of public school facilities projected to cost at least $2 million in state funding authorized by the legislature on or after January 1, 2009.

Under current law, DEEP's regulations must establish state building construction standards that achieve at least 75 points on the U.S. Environmental Protection Agency's national energy performance rating system, as determined by its Energy Star Target Finder Tool.

The bill instead requires DEEP's regulations to establish state building construction standards by January 1, 2020, but retains previously adopted regulations until the new ones are adopted. Under the bill, the standards must be based on a nationally recognized model for sustainable construction codes that promotes the construction of high performance green buildings that:

1. have reduced emissions;

2. have enhanced building occupant health and comfort;

3. are designed to conserve water resources;

4. are designed to promote sustainable and regenerative materials cycles; and

5. provide enhanced resilience to natural, technological, and human-caused hazards.

The bill retains provisions from current law that require standards (1) to include a standard for inclusion of electric vehicle charging stations and (2) allowing DEEP to update the standards as the commissioner deems necessary. The bill removes provisions that allow DEEP, in consultation with the Department of Administrative Services, to (1) exempt facilities from complying with these standards if the facility cannot be defined as an eligible building type in the Energy Star Target Finder tool and (2) establish a separate standard for exempted facilities.

EFFECTIVE DATE: Upon passage

## § 12 — DEEP CONSULTANTS

*Expands DEEP's ability to retain consultants for certain state and federal proceedings*

Current law allows PURA and the Office of Consumer Counsel (OCC) to retain consultants for PURA proceedings. The bill additionally allows DEEP to retain consultants to assist DEEP staff during PURA proceedings under the same circumstances and limits that apply to PURA and OCC consultants. As under current law for OCC and PURA, DEEP generally may not hire a consultant for telecommunications proceedings that is also consulting for the affected company.

Current law already allows DEEP, in consultation with PURA and OCC, to retain consultants to supplement staff expertise for proceedings before or negotiations with various federal agencies (e.g., the Federal Energy Regulatory Commission (FERC), the U.S. Department of Energy). The bill additionally allows DEEP, in consultation with PURA and OCC, to retain consultants for Federal Communications Commission (FCC) proceedings, under the same circumstances and limits that apply to DEEP and PURA consultants for other federal agency proceedings.

Under existing law, for both PURA and federal proceedings, expenses for consultants are borne by the companies affected by the proceeding, subject to certain limits. The law requires PURA to consider consultant-related expenses proper business expenses for purposes of rate making (which allows those companies subject to rate regulation to recover these expenses through their rates).

EFFECTIVE DATE: October 1, 2019

## § 13 — EDC OWNERSHIP OF STORAGE

*Explicitly allows EDCs to own energy storage systems and allows them to recover from ratepayers prudently incurred costs for these systems*

Existing law prohibits EDCs from owning or operating generation assets, with certain exceptions. Under the bill, this prohibition does not apply to EDCs building, owning, or operating energy storage systems (e.g., battery storage). Under the bill, provisions in existing law that allow EDCs to submit proposals to DEEP to build, own, or operate storage as part of a grid-side system enhancement pilot program similarly do not prohibit or limit an EDC's ability to build, own, or operate storage.

By law, energy storage systems are any commercially available technology capable of absorbing energy, storing it for a period of time and thereafter dispatching it, among other things (CGS § 16-1(a)(48)).

Under the bill, PURA may authorize an EDC to recover its prudently incurred costs and investments for any energy storage system it builds, owns, or operates. EDCs may do so through a fully reconciling component of electric ratepayer bills, until the EDC's next rate case, when the EDC must recover the cost through its base distribution rates.

EFFECTIVE DATE: Upon passage

## § 14 — RESIDENTIAL FURNACES, BOILERS, AND PROPANE TANKS

*Extends the EnergizeCT Heating Loan Program through 2024*

The bill extends, for five additional years, the duration of a program that provides financing for furnace and boiler replacements and purchases of new or leased residential propane fuel tanks (i.e., the EnergizeCT Heating Loan Program). Under current law, the program expires at the end of its sixth year (2019). The bill instead requires the program to expire at the end of its eleventh year (2024). By law, the program is funded through the systems benefits charge on ratepayer bills.

EFFECTIVE DATE: Upon passage

## §§ 15-18 — ANAEROBIC DIGESTION AT ANIMAL FEEDING OPERATIONS

*Exempts certain anaerobic digestion facilities at animal feeding operations from DEEP permit requirements; allows the DEEP commissioner to procure up to 10 MW of energy and related products from such facilities; and requires PURA to establish interconnection standards for biogas derived from certain farm and other waste*

The bill exempts certain anaerobic digestion facilities from the requirement to obtain a permit from DEEP to construct and operate a solid waste facility.

### *Requirements for Exemption from Permit Requirement*

In order to be exempt, such facilities must be collocated with an animal feeding operation, which, under the bill, is a lot or facility on a farm, other than an aquatic animal production facility, where (1) animals have been, are currently, or will be stabled or confined and fed or maintained for a total of at least 45 days in a 12-month period and (2) crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of such lot or facility.

In addition, exempt facilities must (1) use feed stock that is at least 50% by volume farm-generated organic waste from an animal feeding operation and not more than 5% by volume food scraps, food processing residuals, and soiled or unrecycled paper and (2) beneficially use any discharge that is not energy end products. Specifically, the bill requires liquid material end products to be used as

fertilizer and solid material end products to be used for animal bedding, soil or soil amendment, fertilizer, or other value-added products. Under the bill, any discharge applied to land in Connecticut must be applied at an agronomic rate consistent with the nutrient management plan on the farm where the facility is located. The bill defines farm-generated organic waste as waste associated with animal feeding operations including animal bedding, manure, urine, silage, leachate, wastewaters associated with egg or dairy production, animal feed waste, and barnyard runoff.

The bill requires animal feeding operations that have an exempt facility to annually submit to the DEEP commissioner, by July 31, the amount of farm-generated organic waste that is processed by the facility. The bill requires it to indicate the amount of waste processed from the animal feeding operation and from other sources on a form DEEP prescribes.

### *DEEP Enforcement*

Under the bill, if DEEP determines that a facility is operating without a permit but is not collocated with an animal feeding operation or is processing more than 5% by volume food scraps, food processing residuals, and soiled or unrecyclable paper, the facility's operator must apply for a DEEP permit within five days of receiving notice of the DEEP commissioner's determination. If the permit application is denied, the facility must close within five days after receiving notice of the denial.

The bill allows DEEP to adopt regulations to carry out the bill's provisions on exempt facilities.

### *Anaerobic Digestion Procurement (§ 17)*

The bill allows the DEEP commissioner, in consultation with the procurement manager, the Office of Consumer Counsel, and the attorney general, to conduct one or more solicitations for energy derived from anaerobic digestion. The bill requires bidders to submit one or more proposals for facilities that are animal feeding operations

and located on land used for farming.

The bill allows the DEEP commissioner to select proposals from resources with a total nameplate capacity of up to 10 MW in the aggregate if she finds proposals to be:

1. in ratepayers' interest, including the delivered price;
2. consistent with the state's greenhouse gas reduction requirements; and
3. in accordance with policy goals outlined in the state's Comprehensive Energy Strategy and state-wide solid waste management plan.

The bill allows the DEEP commissioner to direct the EDCs to enter into power purchase agreements for any combination of energy, capacity, and environmental attributes (e.g., RECs) for up to 20 years. The bill allows EDCs to retain the RECs to meet their requirements under the state's renewable portfolio standard or sell the RECs to suppliers or other EDCs to use to meet their renewable portfolio standard requirements. The bill requires EDCs, when deciding whether to sell or retain RECs, to select the option that is in ratepayers' best interest.

Under the bill, power purchase agreements are subject to PURA's review and approval. The bill requires PURA to begin its review when the agreement is filed and issue a decision within 60 days. After 60 days, if PURA does not issue a decision, the agreement is deemed approved.

The bill requires EDCs to recover the net costs of the agreement through a fully reconciling component of electric rates for all customers, including the EDC's costs under the agreement and reasonable costs incurred in connection with the agreement. EDCs must credit customers for any net revenues from the sale of products purchased under the agreement in the same rate component.

The bill also allows the DEEP commissioner to hire consultants with expertise in quantitative modeling of gas and electric markets to assist in implementing the solicitation and procurement, including proposal evaluation. The bill requires DEEP's costs associated with the solicitation and review of proposals to be recovered through the same component of ratepayer bills.

### *Biogas Interconnection Standard (§ 18)*

The bill requires PURA to initiate a docket, by October 1, 2019, to define and adopt a gas quality interconnection standard for biogas derived from the decomposition of farm-generated organic waste or source separated organic material that has been processed through gas conditioning systems to remove impurities (e.g., carbon dioxide, hydrogen sulfide). The bill requires the standard to make the biogas of a quality suitable for injection in the state's natural gas distribution system.

The bill requires the docket to also include cleanliness standards for the biogas and a process by which biogas producers may request and be approved for interconnection to the state's natural gas distribution system. PURA must issue a final decision in the docket by September 1, 2021.

EFFECTIVE DATE: Upon passage

## §§ 19 & 20 — GREEN JOBS CAREER LADDER

*Requires the Office of Workforce Competitiveness, in consultation with other entities, to establish a career ladder for jobs in the green technology industry and requires DOL and OHE to publish it on their websites*

The bill requires the Office of Workforce Competitiveness, in consultation with the Office of Higher Education (OHE), the Department of Education (SDE), the Department of Labor (DOL), DEEP, regional workforce development boards, and employers to establish a career ladder for jobs in the green technology industry by January 1, 2020 and update it as needed. Under the bill, the career ladder must list:

1. careers at each level of the green technology industry and the requisite level of education and salary offered for each career

2. all course, certificate, and degree programs in green jobs offered by technical education and career schools within the Technical Education and Career System and higher education institutions in Connecticut; and

3. green technology industry jobs available in Connecticut.

The bill makes a corresponding change by requiring OHE and the DOL, by July 1, 2020, to publish the green jobs career ladder on their respective websites, instead of requiring OHE in consultation with the SDE to annually publish green jobs courses and degree and certificate programs offered by technical education and career schools and public higher education institutions on OHE's website.

The bill also requires OHE and DOL to each publish an inventory of green jobs related equipment used by technical education and career schools and higher education institutions on their respective websites by July 1, 2020. Current law requires just OHE, in consultation with SDE, to publish such inventory on its website.

EFFECTIVE DATE: July 1, 2019

## BACKGROUND

### *Related Bills*

sHB 7154 (File 422), favorably reported by the Energy and Technology Committee, contains the same provisions on construction standards and DEEP consultants.

sHB 7251 (File 431), favorably reported by the Energy and Technology Committee, contains similar provisions extending current renewable programs, and, for new programs required under PA 18-50, delaying deadlines and requiring a value of distributed energy resources study.

sHB 5828 (File 241), favorably reported by the Higher Education and Employment Advancement Committee, contains the same provisions on establishment and publication of a green jobs ladder.

SB 468 (File 217), favorably reported by the Energy and Technology Committee, contains similar provisions on land inventories for Class I resources.

## COMMITTEE ACTION

Energy and Technology Committee

Joint Favorable
Yea 25 Nay 0 (03/19/2019)

Appropriations Committee

Joint Favorable
Yea 40 Nay 5 (05/17/2019)

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[i] In 2011, the federal Bureau of Labor Statistics conducted surveys to measure green industry and occupational employment nationally. In order to measure green employment by industry and occupations in Connecticut, the OWC would have to undertake similar state-level survey work.

[i] The bill requires the establishment of a green jobs career ladder by January 1, 2020, with publication of the results on the Office of Higher Education and DOL websites no later than July 1, 2020. However, it is anticipated that the survey work would take approximately one year to complete, with subsequent analysis continuing into the following year. Thus, costs are anticipated to occur in both FY 20 and FY 21.