House of Representatives

General Assembly

File No. 449

January Session, 2025

Substitute House Bill No. 5004

House of Representatives, April 2, 2025

The Committee on Environment reported through REP. PARKER of the 101st Dist., Chairperson of the Committee on the part of the House, that the substitute bill ought to pass.

AN ACT CONCERNING THE PROTECTION OF THE ENVIRONMENT AND THE DEVELOPMENT OF RENEWABLE ENERGY SOURCES AND ASSOCIATED JOB SECTORS.

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

Section 1. (NEW) (*Effective from passage*) (a) In the aggregate, state agencies shall have the following greenhouse gas emissions reduction goals: (1) A forty-five per cent reduction from 2001 levels by 2030; (2) a seventy per cent reduction from 2016 levels by 2040; and (3) achieving a level determined to be net-zero by 2050.

(b) Such state agencies shall have the goal of only utilizing zero-carbon generating electricity by 2030.

(c) Such state agencies may use the social cost of greenhouse gas emissions when evaluating the costs and benefits of activities and improvements to the facilities of such agencies to meet the goals in this section. For purposes of this section, "social cost" includes, but is not limited to, net agricultural productivity, harms to human health,

property damage and the value of ecosystem services.

(d) Not later than January 1, 2026, the Commissioner of Energy and Environmental Protection shall publish guidelines for such state agencies on the social cost of greenhouse gas emissions on the department's Internet web site.

Sec. 2. Section 22a-200a of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(a) The state shall reduce the level of emissions of greenhouse gas:

(1) Not later than January 1, 2020, to a level at least ten per cent below the level emitted in 1990;

(2) Not later than January 1, 2030, to a level at least forty-five per cent below the level emitted in 2001;

(3) Not later than January 1, 2040, to a level at least sixty-five per cent below the level emitted in 2001, including to a level of zero per cent from electricity supplied to electric customers in the state;

(4) Not later than January 1, 2050, to **[**a level**]** an economy-wide net-zero level, provided direct and indirect emissions of greenhouse gases are at least eighty per cent below the level emitted in 2001; and

(5) All of the levels referenced in this subsection shall be determined by the Commissioner of Energy and Environmental Protection.

(b) On or before January 1, 2010, and biannually thereafter, the state agencies that are members of the Governor's Steering Committee on Climate Change shall submit a report to the Secretary of the Office of Policy and Management and the Commissioner of Energy and Environmental Protection. The report shall identify existing and proposed activities and improvements to the facilities of such agencies that are designed to meet state agency energy savings goals established by the Governor. The report shall also identify policies and regulations that could be adopted in the near future by such agencies to reduce

greenhouse gas emissions in accordance with subsection (a) of this section.

(c) **[**Not later than January 1, 2012, and every three years thereafter, the Commissioner of Energy and Environmental Protection shall, in consultation with the Secretary of the Office of Policy and Management and the Governor's Steering Committee on Climate Change, report, in accordance with the provisions of section 11-4a, to the joint standing committees of the General Assembly having cognizance of matters relating to the environment, energy and transportation on the quantifiable emissions reductions achieved pursuant to subsection (a) of this section. The report shall include a schedule of proposed regulations, policies and strategies designed to achieve the limits of greenhouse gas emissions imposed by said subsection, an assessment of the latest scientific information and relevant data regarding global climate change and the status of greenhouse gas emission reduction efforts in other states and countries.**]** The Commissioner of Energy and Environmental Protection shall, not later than January 1, 2026, and annually thereafter, publish an inventory of greenhouse gas emissions sources and carbon sequestered to (1) establish a baseline for such emissions for the state, and (2) report on the quantifiable emissions reductions and carbon sequestration achieved in pursuit of the greenhouse gas emissions levels specified in this section.

(d) The Commissioner of Energy and Environmental Protection shall, not later than January 1, 2026, and not more than every three years thereafter, in consultation with the Secretary of the Office of Policy and Management and the Governor's Council on Climate Change, produce a report, with an opportunity for public comment, on the quantifiable emissions reductions and carbon sequestration achieved in pursuit of the greenhouse gas emissions levels specified in this section. The report shall include (1) a schedule of proposed regulations, policies and strategies designed to achieve the limits of greenhouse gas emissions specified in this section, by the relevant date provided, (2) an assessment of the latest scientific information and relevant data regarding global climate change, and (3) the status of greenhouse gas emission reduction

efforts in other states and countries. Such proposed regulations, policies and strategies may include carbon sequestration. The commissioner may engage a consultant to assist in preparing such report or portions of such report. The commissioner shall submit such report, in accordance with the provisions of section 11-4a, to the joint standing committees of the General Assembly having cognizance of matters relating to the environment, energy and technology and transportation.

[(d)**]** (e) At least one year prior to the effective date of any federally mandated greenhouse cap and trade program including greenhouse gas emissions subject to any state cap and trade requirements adopted pursuant to this section, the Commissioner of Energy and Environmental Protection and the Secretary of the Office of Policy and Management shall report, in accordance with the provisions of section 11-4a, to the joint standing committees of the General Assembly having cognizance of matters relating to the environment, energy and technology and transportation. Such report shall explain the differences between such federal and state requirements and shall identify any further regulatory or legislative actions needed to achieve consistency with such federal program.

Sec. 3. Section 22a-200b of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

[(a) The Commissioner of Energy and Environmental Protection shall, with the advice and assistance of a nonprofit association organized to provide scientific, technical, analytical and policy support to the air quality and climate programs of northeastern states: (1) Not later than December 1, 2009, publish an inventory of greenhouse gas emissions to establish a baseline for such emissions for the state and publish a summary of greenhouse gas emission reduction strategies on the Department of Energy and Environmental Protection's Internet web site, (2) not later than July 1, 2010, publish results of various modeling scenarios concerning greenhouse gas emissions, including, but not limited to, an evaluation of the potential economic and environmental benefits and opportunities for economic growth based on such

scenarios, (3) not later than July 1, 2011, analyze greenhouse gas emission reduction strategies and, after an opportunity for public comment, make recommendations on which such strategies will achieve the greenhouse gas emission levels specified in section 22a-200a, and (4) not later than July 1, 2012, and every three years thereafter, develop, with an opportunity for public comment, a schedule of recommended regulatory actions by relevant agencies, policies and other actions necessary to show reasonable further progress towards achieving the greenhouse gas emission levels specified in section 22a-200a.**]**

[(b)**]** The commissioner may adopt regulations, in accordance with the provisions of chapter 54, to implement the provisions of **[**this section**]** subsection (d) of section 22a-200a, as amended by this act. Nothing in section 4a-67h, 22a-200 or 22a-200a, as amended by this act, or this section shall limit a state agency from adopting any regulation within its authority in accordance with the provisions of chapter 54.

Sec. 4. (NEW) (*Effective from passage*) Not later than January 1, 2026, the Public Utilities Regulatory Authority shall initiate an uncontested proceeding regarding the future of the natural gas distribution system in the state in relation to the provisions of section 22a-200a of the general statutes, as amended by this act. Such proceeding shall include, but need not be limited to, the consideration and implementation of beneficial electrification measures such as geothermal systems and heat pumps, the integration of natural gas and electric company joint planning processes, transparent accounting for the full costs and benefits of energy systems infrastructure, consideration of the disproportionate burdens placed on environmental justice communities, as defined in section 22a-20a of the general statutes, and consideration of ratepayer impacts presented in any scenario. Such proceeding shall also give consideration to maximizing the efficiency, ratepayer value and other benefits of the existing natural gas distribution system. Upon completion of such uncontested proceeding, said authority shall submit a report, in accordance with the provisions of section 11-4a of the general statutes, to the joint standing committees of the General Assembly having cognizance of matters relating to the environment and energy

and technology on any recommendations for legislative changes necessary to implement the findings of such docket.

Sec. 5. Subdivision (3) of subsection (c) of section 32-7t of the general statutes is repealed and the following is substituted in lieu thereof (*Effective July 1, 2025*):

(3) The commissioner, upon consideration of an application and any additional information, may approve an application in whole or in part or may approve an application with amendments, provided the commissioner may give preference to applications that: (A) Make significant investments in environmentally sustainable practices, including, but not limited to, zero-carbon energy and energy efficiency, (B) are in sectors of the economy such as renewable energy, energy efficiency and zero-emission vehicles, or (C) are for farming operations that are sustainable from a climate perspective. If the commissioner disapproves an application, the commissioner shall identify the defects in such application and explain the specific reasons for the disapproval. The commissioner shall render a decision on an application not later than ninety days after the date of its receipt by the commissioner.

Sec. 6. (NEW) (*Effective from passage*) The Secretary of the State shall provide a voucher for the amount of any registration or renewal fee for a benefit corporation, as defined in section 33-1351 of the general statutes, provided such corporation submits proof to the secretary that the corporation meets the parameters of a benefit corporation, as defined in section 33-1351 of the general statutes.

Sec. 7. (NEW) (*Effective from passage*) (a) There is established a Connecticut Clean Economy Council that shall advise on economic development strategies and policies that strengthen the state's climate mitigation, clean energy, resilience and sustainability programs, in particular for vulnerable communities, as defined in section 16-243y of the general statutes.

(b) Such council shall meet not less than quarterly, at dates, times and locations to be established by the cochairpersons of such council. The

council shall: (1) Identify opportunities to leverage state and federal funding to scale economic development and workforce opportunities associated with climate mitigation, clean energy, resilience and sustainability investments, (2) serve as a central coordinating body for climate mitigation, clean energy, resilience and sustainability workforce efforts and opportunities state wide for a technically advanced, enduring labor force, (3) develop economic development and workforce strategies that support investment and growth of climate mitigation, clean energy, resilience and sustainability job growth, and (4) advise the Governor on any state-wide economic or workforce action plan in clean energy, climate and sustainability.

(c) Such council shall develop a plan to facilitate the transition of workers from fossil-fuel-based employment to clean economy jobs consistent with the provisions of subsection (b) of this section. Such plan shall be submitted not later than July 1, 2026, to the joint standing committees of the General Assembly having cognizance of matters relating to the environment, energy and technology and commerce, in accordance with the provisions of section 11-4a of the general statutes.

(d) Such council shall be composed of the following members: (1) The Commissioner of Economic and Community Development, or the commissioner's designee, who shall also serve as a cochairperson of the council, (2) the Chief Workforce Officer, or said officer's designee, who shall also serve as a cochairperson of the council, (3) the Commissioner of Energy and Environmental Protection, or the commissioner's designee, who shall also serve as cochairperson of the council, (4) the Commissioner of Transportation, or the commissioner's designee, (5) the Secretary of the Office of Policy and Management, or the secretary's designee, (6) a representative from the office of the Governor, (7) the chief executive officer of the Connecticut Green Bank, or the chief executive officer's designee, (8) the chief executive officer of Connecticut Innovations, Incorporated, or the chief executive officer's designee, (9) the Labor Commissioner, or the commissioner's designee, (10) the Commissioner of Consumer Protection, or the commissioner's designee, (11) one member appointed by the Chief Workforce Officer who shall

be a representative of a regional workforce development board, (12) one member appointed by the speaker of the House of Representatives, (13) one member appointed by the president pro tempore of the Senate, (14) one member appointed by the majority leader of the Senate, (15) one member appointed by the majority leader of the House of Representatives, (16) one member appointed by the minority leader of the Senate, (17) one member appointed by the minority leader of the House of Representatives, and (18) any other member so designated by the cochairpersons. Members appointed pursuant to subdivisions (12) to (17), inclusive, of this subsection shall have one or more of the following backgrounds or qualifications: (A) Be a member of the Connecticut Technical Education Career System, (B) be a representative of a nonprofit organization that focuses on helping people overcome barriers to workforce participation, (C) have expertise in hiring and training employees in the trades related to green technologies, (D) be a representative of a higher education institution and have expertise in technical education, or (E) be a member of the Connecticut State Building Trades Council. Any member appointed pursuant to subdivision (18) of this subsection shall serve at the pleasure of the cochairpersons of the council.

(e) A majority of the members of the council shall constitute a quorum.

(f) The cochairpersons shall, in addition to their general duties, have the following specific responsibilities: The cochairperson from the Department of Economic and Community Development shall lead the activities specified in subdivision (1) of subsection (b) of this section and the cochairperson from the Office of Workforce Strategy shall lead the activities specified in subdivision (2) of subsection (b) of this section.

(g) Not later than February 15, 2026, and biannually thereafter, the council shall report on its work, findings and recommendations to the Governor, the Office of Policy and Management, and the joint standing committees of the General Assembly having cognizance of matters relating to the environment, energy and technology, higher education

and commerce, in accordance with the provisions of section 11-4a of the general statutes.

Sec. 8. Section 31-3rr of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(a) As used in this section and section 10a-55g:

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

(2) "Green technology" has the same meaning as provided in section 10a-55d; 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 Connecticut Clean Economy Council, 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, identify 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 Connecticut Clean Economy Council shall update the green jobs career ladder established pursuant to this section on an as needed basis.

[(c) Not later than January 1, 2024, the Connecticut Clean Economy Council shall develop a plan for green jobs workforce training to accomplish the greenhouse gas emissions goals set forth in subsection (a) of section 22a-200a. Such plan shall include, but need not be limited to, (1) development of work-based learning programs for green jobs with workforce shortages; (2) development of certificate and degree

programs related to the green technology industry at technical education and career schools and institutions of higher education in the state; (3) identification of available funding, whether from a public or private source, to fund the development of such work-based learning and certificate and degree programs and provide grants to apprentices and students; and (4) a strategy to market and recruit individuals, especially from underrepresented populations, to existing and newly developed green jobs work-based learning programs and certificate and degree programs related to the green technology industry at job centers, technical education and career schools and institutions of higher education. Not later than January 1, 2025, and annually thereafter, said council shall update such plan as necessary.

(d) Not later than February 1, 2024, and annually thereafter, the Connecticut Clean Economy Council shall submit, in accordance with the provisions of section 11-4a, to the joint standing committee of the General Assembly having cognizance of matters relating to higher education and employment advancement the plan developed or updated pursuant to subsection (c) of this section.**]**

Sec. 9. Subsection (b) of section 10-283 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective July 1, 2025*):

(b) Notwithstanding the application date requirements of this section, at any time within the limit of available grant authorization and within the limit of appropriated funds, the Commissioner of Administrative Services, in consultation with the Commissioner of Education, may approve applications for grants and make payments for such grants, for any of the following reasons: **[**(A)**]** (1) To assist school building projects to remedy damage from fire and catastrophe, **[**(B)**]** (2) to correct safety, health and other code violations, **[**(C)**]** (3) to replace roofs, including the replacement or installation of skylights as part of the roof replacement project, **[**(D)**]** (4) to remedy a certified school indoor air quality emergency, **[**(E)**]** (5) to install insulation for exterior walls and attics, or **[**(F)**]** (6) to purchase and install a limited use and

limited access elevator, windows, photovoltaic panels, air source or ground source heat pumps, wind generation systems, building management systems or portable classroom buildings, provided portable classroom building projects shall not create a new facility or cause an existing facility to be modified so that the portable buildings comprise a substantial percentage of the total facility area, as determined by the commissioner.

Sec. 10. (NEW) (*Effective October 1, 2025*) (a) The Commissioner of Energy and Environmental Protection shall develop a plan for the installation of efficient heat pumps for affordable heating and cooling systems in the state.

(b) Such plan shall provide for the availability of affordable heat pump options, with a focus on heat pump applications that have the greatest potential benefits, including, but not limited to, lowering consumers' energy costs, reducing impacts to the electric grid, and improving building resilience, including, but not limited to: (1) Residences in environmental justice communities, as defined in section 22a-20a of the general statutes, and long-term care facilities where not less than eighty per cent of such residents are Medicaid recipients in good financial standing with the state, (2) access to energy efficient, affordable air conditioning for residents experiencing high energy bills and health risks during heat waves, (3) increased resilience during extreme heat events for homes and businesses, (4) improved flood resilience for homes and businesses by enabling home heating systems to be located above ground, (5) low or no interest loans to replace heating, ventilation and air conditioning equipment to residences impacted by extreme weather events, (6) cost savings and potential benefits for transitioning from electric resistance heating, (7) analysis of accelerating the adoption of heat pump water heaters, including public education and the possible need for contractor incentives, and (8) potential for a demand response program. Such plan shall describe how the state could best utilize any available or future grant or loan funding. Not later than January 1, 2027, the commissioner shall submit a report, in accordance with the provisions of section 11-4a of the general statutes,

to the joint standing committees of the General Assembly having cognizance of matters relating to the environment and energy and technology on the status of such plan and any recommendations for expanding or revising such plan.

Sec. 11. (NEW) (*Effective from passage*) The Commissioner of Administrative Services, in consultation with the Secretary of the Office of Policy and Management, shall develop a model policy or guidelines for environmentally sustainable purchasing that municipalities may voluntarily utilize and implement. Such policy or guidelines shall include, but need not be limited to, a list of any state contracts for sustainable purchasing that allow for municipal participation. The Commissioner of Administrative Services shall post such policy or guidelines on the Internet web site of the Department of Administrative Services not later than January 1, 2026.

Sec. 12. (NEW) (*Effective from passage*) (a) Not later than January 1, 2026, the Department of Administrative Services, in consultation with the Office of Policy and Management, the Departments of Energy and Environmental Protection and Transportation, and any other state agency deemed necessary by the Commissioner of Administrative Services, shall establish a process for said commissioner to consider when making any decision to remodel, alter, repair, construct or enlarge any state real asset, pursuant to section 4b-51 of the general statutes, the capability of such state real asset to: (1) Increase energy efficiency, (2) utilize zero-carbon heating and cooling and water heating alternatives, (3) utilize Class I renewable energy, as defined in section 16-1 of the general statutes, (4) facilitate electric vehicle charging, (5) reduce energy use, and (6) serve as a resilience hub.

(b) Not later than July 1, 2027, the Department of Administrative Services, in consultation with the Office of Policy and Management and the Department of Energy and Environmental Protection, shall develop a plan and a budget to retrofit existing fossil fuel-based heating and cooling systems at state buildings to systems capable of being operated without carbon-emitting fuels. Such plan and budget shall be submitted,

in accordance with the provisions of section 11-4a of the general statutes, to the joint standing committees of the General Assembly having cognizance of matters relating to the environment and energy and technology.

Sec. 13. (NEW) (*Effective from passage*) (a) The Commissioner of Energy and Environmental Protection shall evaluate how to integrate and advance nature-based solutions in the state that support climate change mitigation, climate change adaptation, ecosystem resilience and biodiversity through (1) the microgrid and resilience grant and loan pilot program authorized pursuant to section 16-243y of the general statutes, (2) the open space and watershed land acquisition program authorized pursuant to sections 7-131d to 7-131k, inclusive, of the general statutes, as amended by this act, and (3) other applicable state and federal programs administered by the Department of Energy and Environmental Protection that advance nature-based solutions, including, but not limited to, (A) federal Clean Water Act programs, (B) the Long Island Sound Study program, and (C) the Urban Forestry program. The department's efforts to advance such nature-based solutions shall be known as the nature-based solutions initiative.

(b) The commissioner shall, as part of such evaluation, consider best practices that encourage the use of the state's ecosystems to naturally sequester and store carbon, reduce greenhouse gas emissions, increase biodiversity and protect against climate change impacts including: (1) Increasing carbon sequestration through increased forest acreage, including reforestation, (2) controlling invasive species, (3) encouraging soil health across all landscapes, (4) protecting carbon stocks through avoiding the conversion of forests and wetlands to other purposes, (5) restoring habitats to improve biodiversity, (6) increasing climate-smart agriculture and soil conservation to reduce greenhouse gas emissions while improving habitat and protecting biodiversity, (7) increasing community resilience by improving water quality and addressing flooding and drought through nature-based stormwater management and shoreline protection that uses nature-based approaches such as living shorelines, (8) improving air quality and reducing urban heat

island effects through urban forestry and increasing green spaces, and (9) increase access to open space for public health benefits.

(c) Not later than July 1, 2026, the commissioner shall post such nature-based solutions initiative program evaluation on the department's Internet web site for review and written comment. As part of that evaluation, the commissioner shall seek review and input from the Departments of Agriculture, Public Health, Housing, Transportation, the Insurance Department, the Connecticut Green Bank and the Office of Policy and Management. In addition, the commissioner shall host one listening session before such nature-based solutions initiative is so posted in order to seek public comment.

Sec. 14. (*Effective from passage*) Not later than January 15, 2027, the chairperson of the Public Utilities Regulatory Authority shall submit, in accordance with the provisions of section 11-4a of the general statutes, the results of a study to develop a solar canopy strategic plan and program design to the joint standing committee of the General Assembly having cognizance of matters relating to energy and technology. The plan shall identify opportunities for solar canopies in the state and shall prioritize the development of solar canopies in environmental justice communities, as defined in section 22a-20a of the general statutes. The plan shall include an examination of different ways to promote solar canopies and shall include recommendations for policies, programs or regulations to promote the construction of solar canopies in the state, consistent with the greenhouse gas reduction goals established in section 22a-200a of the general statutes, as amended by this act.

Sec. 15. (*Effective from passage*) The Commissioner of Energy and Environmental Protection shall, in accordance with the provisions of section 11-4a of the general statutes, not later than February 1, 2026, submit to the joint standing committees of the General Assembly having cognizance of matters relating to the environment and energy and technology, a report with recommended regulations, policies and strategies that can significantly lower energy costs for families and

businesses, increase community resilience to extreme weather events, including, but not limited to, flooding and extreme heat and contribute to the greenhouse gas emissions reductions required in section 22a-200a of the general statutes, as amended by this act. Such report may utilize modeling scenarios concerning greenhouse gas emissions. The commissioner may engage a consultant to assist in preparing the report or portions thereof.

Sec. 16. (NEW) (*Effective from passage*) (a) For the purposes of this section:

(1) "Utility-scale renewable thermal energy network" means distribution infrastructure (A) established for the purpose of providing thermal energy for space heating and cooling, domestic hot water production, refrigeration, thermal energy storage or commercial and industrial processes requiring heating or cooling, and (B) effected through interconnections between one or more renewable thermal energy resources, which may be owned by multiple parties, and between these resources and heat pumps in multiple buildings owned by multiple parties; and

(2) "Renewable thermal energy" means (A) ambient heating or cooling provided, absorbed or stored by geothermal wells, boreholes or other noncombusting, non-fossil-fuel-consuming, nonnuclear thermal resources, or (B) thermal energy otherwise lost to the atmosphere or other environmental compartment as waste heat.

(b) Notwithstanding the provisions of title 16 of the general statutes, not later than twelve months after passage of this section, the Public Utilities Regulatory Authority shall initiate a proceeding to establish a program for development of utility-scale renewable thermal energy networks by gas companies, as defined in section 16-1 of the general statutes. In establishing such program, the authority shall develop parameters for such networks, procedures or filing proposals for such networks and a standardized data collection system enabling the authority and the public to track the status and performance of utility-scale renewable thermal energy networks developed pursuant to this

section.

(c) The authority shall structure the utility-scale renewable thermal energy network program in the best interest of ratepayers of public service companies, as defined in section 16-1 of the general statutes. For purposes of this section, a determination of the best interest of ratepayers shall be based on an analysis of the reasonableness of the size, scope, scale and character of the project and related budget and the costs and benefits of the project, including, but not limited to: (1) Avoided long-term energy and infrastructure investments in extending or maintaining gas infrastructure; (2) the anticipated contribution of such projects to alleviation of seasonal strains on the state's natural gas supply and electric distribution system; (3) consumer protections and benefits for end users of the project; (4) adherence to best practices emerging from thermal energy network programs and project designs developed in other states or elsewhere in the state; (5) adherence to workforce development practices, including the adoption of wage standards pursuant to section 31-53 of the general statutes, and the use of registered apprentice programs approved by the Labor Department; (6) potential for accrual of capital and operational cost savings via interconnection with other existing or future thermal energy networks; (7) improvements in air quality in the buildings and neighborhoods served by the project; (8) reductions in greenhouse gas emissions to contribute to achieving the emissions reductions set forth in section 22a-200a of the general statutes, as amended by this act; and (9) the potential rate impact on any class of ratepayers, including a distributional equity analysis that details the benefits and burdens on any such class of ratepayers. The authority may approve a utility-scale renewable thermal energy network proposal that meets the parameters established under the program.

(d) The authority shall create a pilot component of the utility-scale renewable thermal energy network program that requires each gas company to file with the authority, for its review and approval, proposals for not less than one and not more than two pilot projects for the development of utility-scale renewable thermal energy networks

that meet the program parameters established in subsection (c) of this section. The authority shall review a proposal for a pilot project based on the program parameters contained in subsection (c) of this section and on the basis of the project's ability to provide insights into the potential for scaling up future deployment of thermal energy networks in the state, for improving the performance of such networks, and for bringing down the cost of broader deployment of such networks.

(e) The authority shall require projects submitted to the utility-scale renewable thermal energy network program for approval to include a proposed rate structure for thermal energy services supplied to network end users as well as consumer-protection plans for end users. The authority may approve the proposed rate structure if the projected heating and cooling costs for end users is not greater than the heating and cooling costs the end users would be projected to incur if they had not participated.

(f) The Public Utilities Regulatory Authority shall consider the appropriate cost recovery methodology for incentives established pursuant to this section as part of the proceeding established pursuant to section 4 of this act.

(g) A gas company may meet its obligation under subsection (b) of section 16-20 of the general statutes through a project approved by the authority pursuant to this section.

(h) The authority shall ensure transparency and validity of the outcomes of the projects developed pursuant to this section through third-party evaluation of the data the authority collects through its standardized data collection requirement.

(i) Nothing in this section shall prohibit a municipality from developing, owning or maintaining a utility-scale renewable thermal energy network.

(j) As part of the utility-scale renewable thermal energy network program, the authority shall establish a working group on thermal

energy networks, comprising representatives of the staffs of the authority, the Department of Energy and Environmental Protection, the Connecticut Green Bank, the gas and electric companies, the Connecticut State Building Trades Council and environmental nongovernmental organizations.

(k) As part of the utility-scale renewable thermal energy network program, the authority shall, through the working group established under subsection (j) of this section, undertake a study or studies assessing the potential breadth of deployment of thermal energy networks in the state. Such study shall address factors including, but not limited to: (1) Technical feasibility; (2) economic feasibility, taking into account the potential for: (A) Reduction in energy costs of the customer that is the off-taker of the system, (B) reduction in network capital costs as the scale of deployments increases, (C) reduction in capital and operating costs as thermal energy networks are interconnected, (D) avoided cost of expanding and maintaining portions of the gas-distribution system, (E) minimization of the cost of expanding the electricity-distribution system to facilitate increasing electrification of thermal loads, (F) reduction in per-kilowatt-hour cost of supplying electricity as more electricity is sold, (G) state and federal financial incentives available, (H) employing and advancing the skills of gas-utility workers, (I) providing the gas utility companies a business model not dependent on continued use of combustion of fossil fuels, and (J) improvement of air quality; (3) deployment strategies to maximize the scope, minimize the cost, and equitably allocate the cost of thermal energy networks, including systematic identification of significant sources of waste heat across the state; (4) considerations regarding: (A) Deployment in low and moderate-income communities, (B) deployment in environmental justice communities, (C) deployment in new residential and commercial construction versus deployment in retrofitting existing residential and commercial buildings, (D) deployment in urban versus rural communities, (E) deployment in areas with existing gas service versus areas without, and (F) ownership and business models; and (5) appropriate parameters for broader deployment in the near and medium term, including site selection,

network design, interactions with and impacts on the gas and electricity distribution systems, ratepayer protections, billing models, consumer protections, data collection, community engagement, and deployment in low-and moderate-income communities and environmental justice communities, as defined in section 22a-20a of the general statutes.

Sec. 17. (NEW) (*Effective from passage*) (a) For the purposes of this section:

(1) "Renewable thermal energy network" means distribution infrastructure (A) established for the purpose of providing thermal energy for space heating and cooling, domestic hot water production, refrigeration, thermal energy storage or commercial and industrial processes requiring heating or cooling, and (B) effected through interconnections between one or more renewable thermal energy resources, which may be owned by multiple parties, and between these resources and heat pumps in multiple buildings owned by multiple parties; and

(2) "Renewable thermal energy" means (A) ambient heating or cooling provided, absorbed or stored by geothermal wells, boreholes or other noncombusting, non-fossil-fuel-consuming, nonnuclear thermal resources, or (B) thermal energy otherwise lost to the atmosphere or other environmental compartment as waste heat.

(b) Notwithstanding the provisions of title 16 of the general statutes, each gas company, as defined in section 16-1 of the general statutes, shall develop an incentive program for renewable thermal energy networks to be owned by municipalities, a municipal utility, as defined in section 12-265 of the general statutes, a municipal electric energy cooperative, as defined in section 7-233b of the general statutes, or an entity that has a contractual obligation to a municipality to construct, operate and maintain a renewable thermal network for the purpose of reducing natural gas and electric demand in the state. Such program shall provide an incentive payment to such entities to connect end-use customers to the renewable thermal energy network. Such incentive payment shall be based on the projected natural gas and electric demand reduction of

contractually obligated demand for a period of twenty years. The projected natural gas and electric demand reduction shall be based on the expected gas or electric demand that the renewable thermal loop is displacing.

(c) A gas company shall design its renewable thermal energy network program in the best interest of ratepayers of public service companies, as defined in section 16-1 of the general statutes, and submit its program design for review and approval by the Public Utilities Regulatory Authority. For purposes of this section, a determination of the best interest of ratepayers shall be based on an analysis of the reasonableness of the size, scope, scale and character of the project and related budget and the costs and benefits of the project, including, but not limited to: (1) Avoided long-term energy and infrastructure investments in extending or maintaining gas infrastructure; (2) the anticipated contribution of such projects to alleviation of seasonal strains on the state's natural gas supply and electric distribution system; (3) consumer protections and benefits for end users of the project; (4) adherence to best practices emerging from thermal energy network programs and project designs developed in other states or elsewhere in the state; (5) potential for accrual of capital and operational cost savings via interconnection with other existing or future thermal energy networks; (6) improvements in air quality in the buildings and neighborhood served by the project; and (7) reductions in greenhouse gas emissions to contribute to achieving the emissions reductions set forth in section 22a-200a of the general statutes, as amended by this act.

(d) The Public Utilities Regulatory Authority shall consider the appropriate cost recovery methodology for incentives established pursuant to this section as part of the proceeding established pursuant to section 4 of this act.

(e) The owners of the renewable thermal energy network shall ensure transparency and validity of the outcomes of the networks developed pursuant to this section through submitting data to track the status and performance of said network, which data shall be submitted to the

authority.

Sec. 18. Section 16a-3j of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(a) In order to secure cost-effective resources to provide more reliable electric or gas service for the benefit of the state's electric or gas ratepayers and to meet the state's energy and environmental goals and policies established in the Integrated Resources Plan, pursuant to section 16a-3a, and the Comprehensive Energy Strategy, pursuant to section 16a-3d, the Commissioner of Energy and Environmental Protection, in consultation with the procurement manager identified in subsection (l) of section 16-2, the Office of Consumer Counsel and the Attorney General, may, in coordination with other states in the control area of the regional independent system operator, as defined in section 16-1, or on behalf of Connecticut alone, issue multiple solicitations for long-term contracts from providers of resources described in subsections (b), (c) and (d) of this section.

(b) In any solicitation for resources to reduce electric or gas demand and improve resiliency and electric or gas grid reliability in the state, issued pursuant to this subsection, the commissioner shall seek proposals for (1) active or passive demand response measures, including, but not limited to, energy efficiency, load management, and the state's conservation and load management programs, pursuant to section 16-245m; **[**, that are capable, either singly or through aggregation, of reducing electric demand by one megawatt or more;**]** and (2) Class I renewable energy sources and Class III sources, as defined in section 16-1, provided any such project proposal is for a facility that has a nameplate capacity rating of more than two megawatts and less than twenty megawatts. The commissioner may also seek proposals for energy storage systems, as defined in section 16-1, that are capable of storing up to twenty megawatts of energy. Proposals pursuant to this subsection shall not have a contract term exceeding twenty years. Each electric distribution company and gas company, as defined in section 16-1, shall, in consultation with the Energy

Conservation Management Board established pursuant to section 16-245m, assess whether the submission of a proposal for active and passive demand response measures is feasible pursuant to any solicitation issued pursuant to subdivision (1) of this subsection, provided such proposal only includes electric or gas demand reductions that are in addition to existing and projected demand reductions obtained through the conservation and load management programs.

(c) In any solicitation issued pursuant to this subsection, the commissioner shall seek proposals from (1) Class I renewable energy sources, as defined in section 16-1, having a nameplate capacity rating of twenty megawatts or more, and any associated transmission; and (2) verifiable large-scale hydropower, as defined in section 16-1, and any associated transmission. The commissioner may also seek proposals for energy storage systems, as defined in section 16-1, having a nameplate capacity rating of twenty megawatts or more. Proposals under this subsection shall not have a contract term exceeding twenty years. In soliciting Class I renewable energy sources, and any associated transmission, pursuant to this subsection, the commissioner may, for the purpose of balancing such Class I energy deliveries and improving the economic viability of such proposals, also seek proposals for electricity and capacity from Class II renewable energy sources, as defined in section 16-1, and existing hydropower resources other than those described under section 16-1, provided such resources are interconnected to such associated transmission and are located in the control area of the regional independent system operator or imported into the control area of the regional independent system operator from resources located in an adjacent regional independent system operator's control area.

(d) In any solicitation for natural gas resources issued pursuant to this subsection, the commissioner shall seek proposals for (1) interstate natural gas transportation capacity, (2) liquefied natural gas, (3) liquefied natural gas storage, and (4) natural gas storage, or a combination of any such resources, provided such proposals provide incremental capacity, gas, or storage that has a firm delivery capability

to transport natural gas to natural gas-fired generating facilities located in the control area of the regional independent system operator. Proposals under this subsection shall not have a contract term exceeding a period of twenty years.

(e) The Commissioner of Energy and Environmental Protection, in consultation with the procurement manager identified in subsection (l) of section 16-2, the Office of Consumer Counsel and the Attorney General, shall evaluate project proposals received under any solicitation issued pursuant to subsection (b), (c) or (d) of this section, based on factors including, but not limited to, (1) improvements to the reliability of the electric system, including during winter peak demand; (2) whether the benefits of the proposal outweigh the costs to ratepayers; (3) fuel diversity; (4) the extent to which the proposal contributes to meeting the requirements to reduce greenhouse gas emissions and improve air quality in accordance with sections 16-245a, 22a-174 **[**,**]** and 22a-200a, as amended by this act; (5) whether the proposal is in the best interest of ratepayers; and (6) whether the proposal is aligned with the policy goals outlined in the Integrated Resources Plan, pursuant to section 16a-3a, and the Comprehensive Energy Strategy, pursuant to section 16a-3d, including, but not limited to, environmental impacts. In conducting such evaluation, the commissioner may also consider the extent to which project proposals provide economic benefits for the state. In evaluating project proposals received under any solicitation issued pursuant to subsection (b), (c) or (d) of this section, the commissioner shall compare the costs and benefits of such proposals relative to the expected or actual costs and benefits of other resources eligible to respond to the other procurements authorized pursuant to this section.

(f) The commissioner may hire consultants with expertise in quantitative modeling of electric and gas markets, and physical gas and electric system modeling, as applicable, to assist in implementing this section, including, but not limited to, the evaluation of proposals submitted pursuant to this section. All reasonable costs, not exceeding one million five hundred thousand dollars, associated with the

commissioner's solicitation and review of proposals pursuant to this section shall be recoverable through the nonbypassable federally mandated congestion charge, as defined in subsection (a) of section 16-1. Such costs shall be recoverable even if the commissioner does not select any proposals pursuant to solicitations issued pursuant to this section.

(g) If the commissioner finds proposals received pursuant to this section to be in the best interest of **[**electric**]** ratepayers, in accordance with the provisions of subsection (e) of this section, the commissioner may select any such proposal or proposals, provided the total capacity of the resources selected under all solicitations issued pursuant to this section in the aggregate do not exceed three hundred seventy-five million cubic feet per day of natural gas capacity, or the equivalent megawatts of electricity, electric demand reduction or combination thereof. Any proposals selected pursuant to subsections (b) and (c) of this section shall not, in the aggregate, exceed ten per cent of the load distributed by the state's electric distribution companies or ten per cent of the load distributed by the state's gas companies. The commissioner may, on behalf of all customers of electric distribution companies, direct the electric distribution companies to enter into long-term contracts for active or passive demand response measures that result in electric savings, electricity time-of-use shifts, electricity, electric capacity, environmental attributes, energy storage, interstate natural gas transportation capacity, liquefied natural gas, liquefied natural gas storage, and natural gas storage, or any combination thereof, from proposals submitted pursuant to this section, provided the benefits of such contracts to customers of electric distribution companies outweigh the costs to such companies' customers. The commissioner may, on behalf of all customers of gas companies, direct the gas companies to enter into long-term contracts for active or passive demand response measures that result in gas savings or time-of-use shifts from proposals submitted pursuant to this section, provided the benefits of such contracts to customers of gas companies outweigh the costs to such companies' customers.

(h) Any agreement entered into pursuant to this section shall be subject to review and approval by the Public Utilities Regulatory Authority. The electric distribution company or gas company shall file an application for the approval of any such agreement with the authority. The authority shall approve such agreement if it is cost effective and in the best interest of electric or gas ratepayers. The authority shall issue a decision not later than ninety days after such filing. If the authority does not issue a decision within ninety days after such filing, the agreement shall be deemed approved. Where an electric distribution company or gas company both apply for recovery of net costs of the same such agreement, the authority shall determine which net costs are attributable to each company. The net costs of any such agreement, including costs incurred by the electric distribution company or gas company under the agreement and reasonable costs incurred by the electric distribution company or gas company in connection with the agreement, shall be recovered on a timely basis through a fully reconciling component of electric rates or gas rates for all customers of the electric distribution company or gas 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 or gas company. For any contract for interstate natural gas transportation capacity, liquefied natural gas, liquefied natural gas storage or natural gas storage entered into pursuant to this section, the electric distribution company may contract with a gas supply manager to sell such interstate natural gas transportation capacity, liquefied natural gas, liquefied natural gas storage or natural gas storage, or a combination thereof, into the wholesale markets at the best available price in a manner that meets all applicable requirements pursuant to all applicable regulations of the Federal Energy Regulatory Commission.

(i) Certificates issued by the New England Power Pool Generation Information System for any Class I renewable energy source or Class III source 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, so long as the revenues from such sale are credited to electric distribution company customers as described in this subsection; or (2) retained by the electric distribution company to meet the requirements of section 16-245a. 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.

Sec. 19. Subsections (a) to (e), inclusive, of section 8-240a of the general statutes are repealed and the following is substituted in lieu thereof (*Effective from passage*):

(a) As used in this section, **[**:

(1) "Alliance district" has the same meaning as provided in section 10-262u;

(2) "Environmental justice community" has the same meaning as provided in section 22a-20a; and

(3) "Low-income resident"**]** "low-income resident" means, after adjustments for family size, individuals or families whose income is not greater than **[**(A)**]** (1) sixty per cent of the state median income, **[**(B)**]** (2) eighty per cent of the area median income for the area in which the resident resides, as determined by the United States Department of Housing and Urban Development, or **[**(C)**]** (3) any other definition of "low-income resident" included in any program in the state that utilizes federal funding, as determined by the Commissioner of Energy and Environmental Protection.

(b) There is established a revolving loan and grant fund to be known as the "Housing Environmental Improvement Revolving Loan and Grant Fund". The fund may be funded from the proceeds of bonds issued pursuant to section 8-240b or from any moneys available to the Commissioner of Energy and Environmental Protection or from other sources. Investment earnings credited to the fund shall become part of

the assets of the fund. Any balance remaining in the fund at the end of any fiscal year shall be carried forward in the fund for the next fiscal year. Payments of principal or interest on a low interest loan made pursuant to this section shall be paid to the State Treasurer for deposit in the Housing Environmental Improvement Revolving Loan and Grant Fund. The fund shall be used to make grants or low interest loans pursuant to this section to pay reasonable and necessary fees incurred in administering loans under this section. The Commissioner of Energy and Environmental Protection may enter into contracts with quasi-public agencies, **[**or**]** nonprofit corporations, or electric distribution or gas companies, as such terms are defined in section 16-1, to provide for the administration of the Housing Environmental Improvement Revolving Loan and Grant Fund by such entity or entities, provided no grant or low interest loan shall be made from the fund without the authorization of the commissioner as provided in this section.

(c) The Commissioner of Energy and Environmental Protection, in collaboration with the Commissioner of Housing, shall establish a pilot program or programs to provide financing or grants from the fund established in subsection (b) of this section for retrofitting projects for single and multifamily residences located in environmental justice communities or alliance districts that (1) improve the energy efficiency of such residences, which may include, but need not be limited to, the installation of heat pumps, solar power generating systems, improved roofing, exterior doors and windows, improved insulation, air sealing, improved ventilation, appliance upgrades and any electric system or wiring upgrades necessary for such retrofit, (2) remediate health and safety concerns that are barriers to any such retrofit, including, but not limited to, mold, vermiculite, asbestos, lead and radon, **[**or**]** (3) add resilience measures to such residences, which may include, but need not be limited to, flood mitigation, (4) provide services to assist residents and building owners to access and implement the programs established pursuant to this section or other available state or federal programs that enable the implementation of energy efficiency retrofitting, or (5) replace heating, ventilation and air conditioning equipment to residences impacted by extreme weather events.

(d) On and after July 1, 2025, the Commissioner of Energy and Environmental Protection, or any program administrator the commissioner may designate, shall accept applications, in a form specified by the commissioner, from any owner of a residential dwelling unit for financing or a grant under the program or programs. Any such financing or grant may be awarded to an owner of a residential dwelling unit, as defined in section 47a-1.

(e) The Commissioner of Energy and Environmental Protection shall **[**prioritize**]** limit the awarding of financing or grants **[**for**]** to projects that benefit any resident or prospective resident who is a low-income resident.

Sec. 20. Section 7-131d of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(a) There is established the protected open space and watershed land acquisition grant program. The program shall provide grants to municipalities and nonprofit land conservation organizations to acquire land or permanent interests in land for open space and watershed protection and to water companies, as defined in section 25-32a, to acquire and protect land which is eligible to be classified as class I or class II land, as defined in section 25-37c, after acquisition. All lands or interests in land acquired under this program shall be preserved in perpetuity predominantly in their natural scenic and open condition for the protection of natural resources while allowing for recreation consistent with such protection and, for lands acquired by water companies, allowing for the improvements necessary for the protection or provision of potable water.

(b) Grants may be made under the protected open space and watershed land acquisition grant program established under subsection (a) of this section or under the Charter Oak open space grant program established under section 7-131t to match funds for the purchase of land or permanent interests in land which purchase meets one of the following criteria: (1) Protects land identified as being especially valuable for recreation, forestry, fishing, conservation of wildlife or

natural resources; (2) protects land which includes or contributes to a prime natural feature of the state's landscape, including, but not limited to, a shoreline, a river, its tributaries and watershed, an aquifer, mountainous territory, ridgelines, an inland or coastal wetland, a significant littoral or estuarine or aquatic site or other important geological feature; (3) protects habitat for native plant or animal species listed as threatened or endangered or of special concern, as defined in section 26-304; (4) protects a relatively undisturbed outstanding example of a native ecological community which is now uncommon; (5) enhances and conserves water quality of the state's lakes, rivers and coastal water; (6) preserves local agricultural heritage; or (7) in the case of grants to water companies, protects land which is eligible to be classified as class I land or class II land after acquisition.

(c) Grants may be made under the protected open space and watershed land acquisition grant program established under subsection (a) of this section for restoration or protection of natural features or habitats on open space already owned by a (1) distressed municipality, as defined in section 32-9p, (2) targeted investment community, as defined in section 32-222, (3) municipality, provided such open space is located in an environmental justice community, as defined in section 22a-20a, or (4) nonprofit land conservation organization, provided such open space is located in a distressed municipality, targeted investment community or environmental justice community. Such restoration or protection may include, but need not be limited to, wetland, wildlife or plant habitat restoration or restoration of other sites to a more natural condition or replacement of vegetation. Such grants may also fund the development of urban agricultural sites on such open space for nonprofit or commercial use. The total amount of grants made pursuant to this subsection shall not exceed twenty per cent of the total amount of grants made pursuant to the open space and watershed land acquisition grant program in any fiscal year.

(d) (1) Except as provided in subdivision (2) of this subsection, no grant may be made under the protected open space and watershed land acquisition grant program established under subsection (a) of this

section or under the Charter Oak open space grant program established under section 7-131t for: (A) Land to be used for commercial purposes or for recreational purposes requiring intensive development, including, but not limited to, golf courses, driving ranges, tennis courts, ballfields, swimming pools and uses by motorized vehicles other than vehicles needed by water companies to carry out their purposes, provided trails or pathways for pedestrians, motorized wheelchairs or nonmotorized vehicles shall not be considered intensive development; (B) land with environmental contamination over a significant portion of the property provided grants for land requiring remediation of environmental contamination may be made if remediation will be completed before acquisition of the land or any interest in the land and an environmental assessment approved by the Commissioner of Energy and Environmental Protection has been completed and no environmental use restriction applies to the land; (C) land which has already been committed for public use, except as provided in subsection (c) of section 7-131g; (D) development costs, including, but not limited to, construction of ballfields, tennis courts, parking lots or roadways; (E) land to be acquired by eminent domain; or (F) reimbursement of in-kind services or incidental expenses associated with the acquisition of land. This subsection shall not prohibit the continuation of agricultural activity, the activities of a water company for public water supply purposes or the selling of timber incidental to management of the land which management is in accordance with approved forest management practices provided any proceeds of such timber sales shall be used for management of the land. In the case of land acquired under this section which is designated as a state park, any fees charged by the state for use of such land shall be used by the state in accordance with the provisions of title 23.

(2) Grants in a total amount not exceeding five per cent of the total amount of grants made pursuant to the open space and watershed land acquisition grant program in any fiscal year may be made to distressed municipalities, as defined in section 32-9p, targeted investment communities, as defined in section 32-222, nonprofit land conservation organizations and municipalities, for the purpose of reimbursement for

in-kind services or incidental expenses associated with the acquisition of land, including, but not limited to, survey fees, appraisal costs and legal fees, provided such land is located in a distressed municipality, targeted investment community or environmental justice community, as defined in section 22a-20a.

(e) Any municipality or group of contiguous municipalities may apply to the Commissioner of Energy and Environmental Protection for a grant-in-aid of a program established to preserve or restrict to conservation or recreation purposes the use of open space land. Such grant shall be used for the acquisition of land, or easements, interests or rights therein, or for the development of such land, or easements, interests or rights therein, for purposes set forth in this section, or both, in accordance with a plan of development adopted by the municipal planning commission of the municipality within which the land is located. Any application for a grant-in-aid relating to land located beyond the territorial limits of the applying municipality shall be subject to approval of the legislative body of the municipality within whose territorial limits the land is located. A municipality applying for aid under this section, may designate its conservation commission as its agent to make such application.

(f) At closing, a permanent conservation easement, as defined in section 47-42, shall be executed for any property purchased with grant funds, which conservation easement shall provide that the property shall remain forever predominantly in its natural and open condition for the specific conservation, open space or water supply purposes for which it was acquired provided any improvements or changes to the property shall be supportive of such condition or purposes. The permanent conservation easement shall be in favor of the state acting through the Commissioner of Energy and Environmental Protection, or his designee, which may be a municipality or a land conservation organization. In the case of land acquired for water supply protection, a water company may hold an easement in conjunction with the state or a nonprofit entity to protect the water supply. Such permanent conservation easement shall also include a requirement that the

property be made available to the general public for appropriate recreational purposes, the maintenance of which recreational access shall be the responsibility of the grantee provided such access shall not be required for land which will be classified as class I or class II land by a water company if such access is inconsistent with the provision of pure drinking water to the public. An exception to the provision of public recreational access may be made at the discretion of the Commissioner of Energy and Environmental Protection when provision for public access would be unreasonably detrimental to the wildlife or plant habitat or other natural features of the property or, for land where development rights have been purchased, would be disruptive of agricultural activity occurring on the land. Any instrument conveying an interest in land less than fee which interest is purchased under this section shall provide for the permanent preservation of the land and public access consistent with the land's use or protection and with any restrictions prescribed by the Department of Public Health in order to protect a public drinking water source.

(g) (1) Notwithstanding the provisions of subsection (a) of this section, not more than ten per cent of the funds authorized for the open space and watershed land acquisition program may be allocated by the commissioner for the purpose of mitigating wildfire risks on properties acquired or protected through the program, including properties already protected by the program, through the management of vegetative fuel loads.

(2) Not later than January 15, 2026, the commissioner shall establish criteria and guidelines for the allocation and use of funds under this subsection, ensuring that such funds are used efficiently and in alignment with the program's overarching goals of protecting open space and natural resources while reducing wildfire risk.

Sec. 21. (*Effective from passage*) The Department of Energy and Environmental Protection shall conduct a study on renter utilization of state energy efficiency and clean energy programs for which such department can obtain data, including, but not limited to, any barriers

for renters to access such programs and any attendant recommendations for addressing any such barriers. Not later than July 1, 2026, the department shall submit a report to the joint standing committees of the General Assembly having cognizance of matters relating to the environment and energy and technology, in accordance with section 11-4a of the general statutes, that contains any such recommendations.

This act shall take effect as follows and shall amend the following sections:		
Section 1	*from passage*	New section
Sec. 2	*from passage*	22a-200a
Sec. 3	*from passage*	22a-200b
Sec. 4	*from passage*	New section
Sec. 5	*July 1, 2025*	32-7t(c)(3)
Sec. 6	*from passage*	New section
Sec. 7	*from passage*	New section
Sec. 8	*from passage*	31-3rr
Sec. 9	*July 1, 2025*	10-283(b)
Sec. 10	*October 1, 2025*	New section
Sec. 11	*from passage*	New section
Sec. 12	*from passage*	New section
Sec. 13	*from passage*	New section
Sec. 14	*from passage*	New section
Sec. 15	*from passage*	New section
Sec. 16	*from passage*	New section
Sec. 17	*from passage*	New section
Sec. 18	*from passage*	16a-3j
Sec. 19	*from passage*	8-240a(a) to (e)
Sec. 20	*from passage*	7-131d
Sec. 21	*from passage*	New section

ENV *Joint Favorable Subst.*

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:

Agency Affected	Fund-Effect	FY 26 $	FY 27 $
Secretary of the State	GF - Revenue Loss	Minimal	Minimal
Treasurer, Debt Serv.	GF - Cost	See Below	See Below
DEEP/PURA[1]	CC&PUCF - Cost	545,433	545,433

Note: GF=General Fund; CC&PUCF=Consumer Counsel and Public Utility Control Fund

Municipal Impact:

Municipalities	Effect	FY 26 $	FY 27 $
Local and Regional School Districts; All Municipalities	Potential Revenue Gain/Potential Cost	See Below	See Below

Explanation

Sections 1 - 4 set new state targets for greenhouse gas (GHG) emissions to reach an economy-wide net zero GHG emission reduction level by January 1, 2050. The requirements contained in these sections do not result in a cost to the state, as they either codify existing practice or are non-binding planning GHG targets with proposals for regulations, policies, and strategies to achieve various targets.

The additional requirements included in **Sections 1 - 4** that

[1]The fringe benefit costs for employees funded out of other appropriated funds are budgeted within the fringe benefit account of those funds, as opposed to the fringe benefit accounts within the Office of the State Comptroller. The estimated active employee fringe benefit cost associated with most personnel changes for other appropriated fund employees is 83.26% of payroll in FY 26.

specifically target the Department of Energy and Environmental Protection (DEEP) do not result in an additional cost, as DEEP has the staff and expertise necessary to complete them.

Section 5 allows the Department of Economic and Community Development to give a preference to certain applications under the JobsCT tax rebate program. This does not result in any fiscal impact as it does not change the existing aggregate credit cap of $40 million annually.

Section 6 requires the Secretary of the State to waive any registration or renewal fees[2] for any benefit corporation in the state resulting in a minimal revenue loss to the Secretary of the State. As of March 21, 2025, there are approximately 40 certified benefit corporations operating in Connecticut.[3]

Sections 7 and 8 have no fiscal impact by establishing the Connecticut Clean Economy Council with the Commissioner of Economic and Community Development and the Chief Workforce Officer as co-chairpersons of the Council. The Department of Economic and Community Development and the Office of Workforce Strategy have the expertise necessary to fulfill the Council's duties as required by the bill.

Section 9 expands the list of allowable non-priority list projects to include certain school air quality projects and is anticipated to increase long-term state spending under the school construction program. The state's share of costs for the school construction program is funded using General Obligation (GO) bonds, which are in turn repaid through General Fund debt service payments. The bill does not change bond authorization levels for the program. The increased GO bond spending will finance revenue gains to municipalities and school districts for those projects that would not have otherwise been funded as part of

[2] Registration fees depend on the type of registration sought and typically cost between $60-$120. The price for a renewal typically costs between $60-$100.
[3] B Corporation.net

larger school construction projects.

Section 10 requires DEEP to develop a plan and report on various issues related to heat pumps. This is not anticipated to result in a fiscal impact as DEEP has the staff and expertise necessary to complete both the plan and report.

Section 11 requires the Department of Administrative Services (DAS) to develop policy guidelines for environmentally sustainable purchasing for municipalities, which results in no fiscal impact to the state.

Section 12 requires DAS to develop a plan to consider energy efficient options when repairing or building real assets and retrofitting existing fossil fuel based heating and cooling systems, which codifies current practice and does not result in any fiscal impact.

Section 13 requires DEEP to evaluate various nature-based solutions and to consider best practices when identifying the best solutions. This is not anticipated to result in a cost to DEEP as they have the staff and expertise necessary to complete the nature-based solution requirements.

Section 14 requires the Public Utilities Regulatory Authority (PURA) to submit a report on a solar canopy strategy and is not anticipated to result in a fiscal impact as PURA has the staff and expertise necessary to do so.

Section 15 requires DEEP to submit a report on various issues related to energy and is not anticipated to result in a fiscal impact as DEEP has the staff and expertise necessary to do so.

Sections 16 - 17 results in additional annual costs to PURA, beginning in FY 26, of approximately $345,811, associated with the establishment of a utility-scale renewable thermal energy network program, which includes a pilot component, working group, and a study of various issues.

PURA would require two additional full-time staff to complete the

requirements contained within the bill. The new positions would include: one full-time Economist, with an approximate annual salary of $85,700 (plus $71,353 in fringe benefits) and one full-time Associate Research Analyst, with an approximate annual salary of $103,000 ($85,758 in fringe benefits). The new staff would be responsible for developing parameters and procedures or filing proposals for the networks as well as standardizing a data collection system that allows PURA and the public to track a network's status and performance.

Section 17 may result in a potential cost and potential revenue gain to municipalities beginning in FY 26. The section requires gas companies to provide incentive payments to municipalities to reduce the state's demand for natural gas and electricity. To the extent municipalities choose to pursue eligible projects the section may result in a potential cost for the project. This cost may be partially or fully offset by the incentive payments.

Section 18 results in additional annual costs to PURA, beginning in FY 26, of approximately $199,622, associated with a new full-time Public Utilities Engineer ($108,928 in salary and $90,694 in fringe benefits). The new position would be responsible for approving and reviewing gas contracts and determining which net costs are recoverable.

Section 19 alters eligible uses of funding under the Housing Environmental Improvement Revolving Loan and Grant program, which is funded through General Obligation (GO) bond funds. Future General Fund debt service costs may be incurred or incurred sooner due to the program's changes to the degree that it causes authorized GO bond funds to be expended or to be expended more quickly than they otherwise would have been.

As of March 1, 2025, there is an unallocated bond balance of $125 million for the program. The bill does not change GO bond authorizations.

Section 20 authorizes the DEEP commissioner to allocate up to 10% of the total amount of Open Space and Watershed Land Acquisition

Program (OWSA) program funds to mitigate wildfire risks on protected property by managing vegetative fuel loads. Additionally, the bill expands the allowable uses of grants to certain municipalities and land trusts to restore or protect open space land they already own. These changes are not anticipated to result in additional costs to the state, as no new funding is designated for the program. However, these changes could result in a redistribution of funds, which could impact grant recipients.

Section 21 requires DEEP to study renters' use of the state energy efficiency and clean energy programs, which is not anticipated to result in a fiscal impact as DEEP has the staff and expertise necessary to complete the study.

Rate Payer Impact

There are several mechanisms within the bill that could impact rate payers. However, it is estimated that the various changes within the bill will (on average) result in a potential savings to rate payers. The bill is likely to expand efficiency and demand response programs that have provided bill reductions for direct program participants and avoids costs at the system level.

Allowing active demand response projects and gas demand response projects to settle Renewable Energy Certificates instead of reselling them in the market would likely save administrative fees, which could be passed on to rate payers in the form of savings. Additionally, the bill seeks to avoid costs associated with gas expansion through the development of thermal energy networks, which could also result in savings to the rate payer.

The Out Years

The annualized ongoing fiscal impact identified above would continue into the future subject to inflation and the terms of any bonds issued and future grant awards.

OLR Bill Analysis

sHB 5004

AN ACT CONCERNING THE PROTECTION OF THE ENVIRONMENT AND THE DEVELOPMENT OF RENEWABLE ENERGY SOURCES AND ASSOCIATED JOB SECTORS.

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SUMMARY

This bill establishes various requirements relating broadly to energy efficiency and greenhouse gas emissions reduction goals, as described in the section-by-section analysis below.

EFFECTIVE DATE: Upon passage, except as noted below.

§§ 1-4 — GREENHOUSE GAS EMISSIONS REDUCTION AND ZERO-CARBON GOALS

Establishes new state GHG emissions reduction levels; for state agencies, sets new GHG emissions reduction goals and a goal to use only zero-carbon generating electricity; modifies DEEP reporting requirements on GHG emissions and reduction progress reports; requires PURA to initiate an uncontested proceeding on the future of natural gas in the state in relation to the state's GHG emissions reduction levels

Connecticut Goals (§ 2)

The bill generally requires the state to reach an economy-wide net zero greenhouse gas (GHG) emission level by January 1, 2050. It establishes this requirement as part of the state's Global Warming Solutions Act (GWSA).

Under current law, the GWSA requires the state to reduce GHG emissions from all sources to a level at least:

1. 10% below the 1990 emission level by 2020,
2. 45% below the 2001 emission level by 2030, and
3. 80% below the 2001 emission level by 2050.

It also requires the state to reduce GHG emissions from electricity supplied to electric customers in the state to zero by 2040.

The bill sets a new GHG reduction level requirement of 65% below the 2001 emission level by 2040. It also requires that, by 2050, the state be at an economy-wide net-zero level, if direct and indirect GHG emissions are at least 80% below the 2001 level. (Direct emissions include those from manufacturing processes and factory stacks. Indirect emissions include those from electricity consumed by commercial and industrial businesses.)

By law, the Department of Energy and Environmental Protection (DEEP) commissioner determines emission levels. GHG includes any chemical or physical substance emitted into the air that the DEEP commissioner reasonably anticipates will cause or contribute to climate change (e.g., carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride).

State Agency Goals (§ 1)

The bill establishes the following GHG emission reduction goals for all state agencies, as a whole:

1. 45% from 2001 levels by 2030,

2. 70% from 2016 levels by 2040, and

3. a level determined to be net-zero by 2050.

It sets a separate goal for the agencies to use only zero-carbon generating electricity by 2030.

The bill allows agencies to consider the social costs of GHG emissions (e.g., net agricultural productivity, harms to human health, property damage, and the value of ecosystem services) when evaluating the costs and benefits of their activities and facility improvements to meet these GHG reduction goals. By January 1, 2026, the DEEP commissioner must publish guidelines for state agencies on the social cost of GHG emissions on the department's website.

Periodic Reporting (§§ 2 & 3)

GHG Emissions Inventory. The bill requires the DEEP commissioner to annually publish, beginning January 1, 2026, an inventory on GHG emission sources and carbon sequestered to (1) set an emissions baseline, and (2) report on the quantifiable GHG emission reductions and carbon sequestration achieved.

GHG Reduction Progress Reports. Under existing law, the DEEP commissioner, in consultation with the Office of Policy and Management secretary and the Governor's Council on Climate Change, must report to the Energy and Technology, Environment, and Transportation committees every three years on quantifiable GHG reductions to achieve the emission reduction goals described above. The bill (1) moves the deadline for the next report, from January 1, 2027, to January 1, 2026; (2) requires the report to additionally include quantifiable carbon sequestration (undefined by the bill) achieved; and (3) requires DEEP to produce the report with an opportunity for public comment.

The bill allows the DEEP commissioner to contract with a consultant to help prepare the report. As under existing law, the report must include:

1. a schedule of proposed regulations, policies, and strategies (which, under the bill, may include carbon sequestration) designed to achieve the reduction levels;

2. an assessment of the latest scientific information and relevant data on global climate change; and

3. the status of other states' and countries' GHG emission reduction efforts.

The bill also eliminates a requirement under current law that DEEP, every three years and with help from a nonprofit association with northeastern state air quality and climate program expertise, develop a schedule of recommended regulatory actions by relevant agencies,

policies, and other actions needed to further progress toward achieving the GHG reduction levels.

PURA Proceeding: Future of Natural Gas Distribution (§ 4)

The bill requires the Public Utilities Regulatory Authority (PURA) to initiate an uncontested proceeding, by January 1, 2026, on the future of the natural gas distribution system in the state in relation to the state's GHG emission reduction levels described above. The proceeding must include:

1. the consideration and implementation of beneficial electrification measures (e.g., geothermal systems and heat pumps);
2. integration of natural gas and electric company joint planning processes;
3. transparent accounting for energy system infrastructure's full costs and benefits;
4. consideration of the disproportionate burdens placed on environmental justice communities;
5. consideration of ratepayer impacts; and
6. consideration to maximizing the efficiency, ratepayer value, and other benefits of the existing natural gas distribution system.

After completing the proceeding, PURA must submit a report to the Environment and Energy and Technology committees on any recommendations for legislative changes needed to implement its findings.

By law, an environmental justice community is a (1) U.S. census block group in which at least 30% of the population consists of non-institutionalized, low-income people with income below 200% of the federal poverty level or (2) distressed municipality (CGS § 22a-20a).

§ 5 — JOBSCT TAX REBATE PROGRAM

Allows the DECD commissioner to give a preference to applications under the JobsCT tax rebate program that (1) make significant investments in environmentally sustainable practices; (2) are in economic sectors like renewable energy, energy efficiency, and zero-emission vehicles; or (3) are for sustainable farming

By law, the Department of Economic and Community Development's (DECD) JobsCT tax rebate program gives companies in specified industries rebates against insurance premiums, corporation business taxes, and pass-through entity taxes for reaching certain job creation targets.

The bill allows the DECD commissioner to give a preference to applications for the program that:

1. make significant investments in environmentally sustainable practices (e.g., zero-carbon energy and energy efficiency);

2. are in economic sectors such as renewable energy, energy efficiency, and zero-emission vehicles; or

3. are for farming operations that are sustainable from a climate perspective.

EFFECTIVE DATE: July 1, 2025

§ 6 — BENEFIT CORPORATION REGISTRATION AND RENEWAL VOUCHERS

Provides vouchers for qualifying benefit corporations for registration and renewal fees

The bill requires the secretary of the state to provide vouchers to benefit corporations (b-corps) for their registration and renewal fees. (It is unclear which fees qualify for a voucher.) To receive a voucher, the b-corp must give the secretary evidence that it meets state law's requirements for a b-corp.

By law, b-corps are business corporations (1) that elect to become subject to the Connecticut Benefit Corporation Act and (2) whose status as a benefit corporation has not been terminated under the act (e.g., by amending its certificate of incorporation to delete any provision stating that the corporation is a b-corp). Among other things, b-corps must have a purpose of creating a "general public benefit," which generally means

having a material positive impact on both society and the environment.

§§ 7 & 8 — CONNECTICUT CLEAN ECONOMY COUNCIL

Establishes a Connecticut Clean Economy Council to advise on strategies and policies to further climate mitigation, clean energy, resilience, and sustainability efforts; requires the council to (1) develop a plan to transition workers away from fossil-fuel-based jobs to those in clean energy and (2) submit an annual report of its work to the governor, OPM, and four legislative committees

The bill establishes a statutory Connecticut Clean Economy Council to advise on strategies and policies to strengthen the state's climate mitigation, clean energy, resilience, and sustainability programs, particularly for vulnerable communities (i.e. populations that may be disproportionately affected by climate change). (Executive Order (EO) 21-3 created an advisory council of the same name to give input on strategies and policies to strengthen climate mitigation, clean energy, resilience, and sustainability programs.)

Duties and Reporting Requirements

Under the bill, the council has the following duties:

1. identify opportunities to leverage state and federal funding to scale economic development and workforce opportunities associated with climate mitigation, clean energy, and resilience and sustainability investments (this must be led by the co-chairperson from DECD);

2. serve as a central coordinating body for (a) climate mitigation, (b) clean energy, (c) resilience and sustainability workforce efforts, and (d) statewide opportunities for a technically advanced, enduring labor force (this must be led by the co-chairperson from the Office of Workforce Strategy);

3. develop economic development and workforce strategies that support investment and growth of climate mitigation, clean energy, resilience, and sustainability job growth; and

4. advise the governor on any statewide economic or workforce action plan in clean energy, climate, and sustainability.

The bill requires the council to develop a plan to transition workers from fossil-fuel-based jobs to clean economy jobs, which must be submitted to the Commerce, Energy and Technology, and Environment committees by July 1, 2026. (It correspondingly eliminates similar requirements for the advisory council created under EO 21-3 to develop and annually update a plan for worker transition to clean energy jobs and annually report on it to the Higher Education and Employment Advancement Committee.)

The council must submit a report by February 15, 2026, and biennially thereafter, to the governor, the Office of Policy and Management (OPM), and the Commerce, Environment, Energy and Technology, Environment, and Higher Education and Employment Advancement committees on its work, findings, and recommendations.

Membership and Meetings

Under the bill, the council consists of the following members:

1. the commissioners of the departments of Economic and Community Development, Energy and Environmental Protection, Transportation, Labor, and Consumer Protection, or their designees;
2. the Chief Workforce Officer or her designee, and one member she appoints to represent a regional workforce development board;
3. the OPM secretary or his designee;
4. the Connecticut Green Bank and Connecticut Innovations, Inc. chief executive officers, or their designees;
5. a representative of the governor's office;
6. any other members the co-chairpersons designate, who serve at the co-chairpersons' pleasure;
7. one member appointed by each of the six legislative leaders.

Members appointed by the legislative leaders must have at least one of the following qualifications or backgrounds:

1. being a Connecticut Technical Education Career System member,
2. being a representative of a nonprofit organization that focuses on helping people overcome barriers to workforce participation,
3. having expertise in hiring and training employees in green technology-related trades,
4. being a representative of a higher education institution who has expertise in technical education, or
5. being a Connecticut State Building Trades Council member.

Under the bill, the council co-chairpersons are the DECD and DEEP commissioners and the Chief Workforce Officer, or their designees. The bill requires the council to meet at least quarterly, with the co-chairpersons setting the dates, times, and locations for the meetings. A majority of the council members constitutes a quorum.

§ 9 — SCHOOL BUILDING CONSTRUCTION GRANTS

Adds air source and ground source heat pump projects to the list of school construction project grant applications that the DAS commissioner can approve at any time

The bill adds air source and ground source heat pump purchase and installation to the list of school construction project grant applications that the Department of Administrative Services (DAS) commissioner can approve at any time without putting them on an annual school construction priority list for the legislature's approval. The commissioner may already approve applications for grants to do things like remedy code violations and fire damage; replace roofs; fix a certified school indoor air quality emergency; or purchase or install solar panels, wind generation systems, and windows.

EFFECTIVE DATE: July 1, 2025

§ 10 — RESIDENTIAL HEAT PUMP SYSTEMS PLAN & REBATE PROGRAM

Requires the DEEP commissioner to (1) develop a plan for installing affordable heat pumps and (2) report on the plan to the Environment and Energy and Technology committees by January 1, 2027

The bill requires the DEEP commissioner to develop a plan for installing efficient heat pumps for affordable heating and cooling systems in the state. The plan must (1) provide for making affordable heat pump options available and (2) describe how the state could best use any available or future grant or loan funding.

The plan must focus on heat pump applications with the greatest potential benefits, including lowering consumers' energy costs, reducing electric grid impacts, and improving building resilience. At a minimum, these affordable heat pump options must include the following:

1. heat pump installations in residences in environmental justice communities and long-term care facilities where at least 80% of the residents are Medicaid recipients in good financial standing with the state;

2. access to energy efficient, affordable air conditioning for residents experiencing high energy bills and health risks during heat waves;

3. increased resilience during extreme heat events for homes and businesses;

4. improved flood resilience for homes and businesses by enabling home heating systems to be located above ground;

5. low- or no-interest loans to replace heating, ventilation, and air conditioning equipment in residences impacted by extreme weather events;

6. cost savings and potential benefits for transitioning from electric resistance heating;

7. analysis of accelerating the adoption of heat pump water heaters, including public education and the possible need for contractor

incentives; and

8. potential for a demand response program.

By January 1, 2027, the DEEP commissioner must report to the Environment and Energy and Technology committees on the plan's status and any recommendations for expanding or revising the plan.

EFFECTIVE DATE: October 1, 2025

§ 11 — ENVIRONMENTALLY SUSTAINABLE PURCHASING BY MUNICIPALITIES

Requires DAS to (1) create a model policy or guidelines for environmentally sustainable purchasing that municipalities can use and (2) post it on the agency's website by January 1, 2026

The bill requires DAS, in consultation with the OPM secretary, to develop a model policy or guidelines for environmentally sustainable purchasing that municipalities may use and implement. The policy or guidelines must include a list of any state contracts for sustainable purchasing that allow for municipal participation. The DAS commissioner must post the policy or guidelines on the agency's website by January 1, 2026.

§ 12 — STATE BUILDING ENERGY EFFICIENCY AND HEATING AND COOLING SYSTEMS

Requires DAS to (1) develop a process for considering certain energy-related aspects when deciding to repair or build state real assets under its authority and (2) develop a plan and budget to retrofit existing fossil fuel-based heating and cooling systems to those that operate without carbon-emitting fuels

The bill requires DAS, by January 1, 2026, to establish a process for its commissioner to consider certain energy-related aspects when deciding to remodel, alter, repair, construct, or enlarge any state real asset under its existing property authority. Specifically, it must consider the asset's capability to increase energy efficiency, reduce energy use, use Class I renewable energy, use zero-carbon heating and cooling and water heating alternatives, support electric vehicle charging, and act as a resilience hub. DAS must do this in consultation with OPM, DEEP, DOT, and any other state agency its commissioner deems necessary.

The bill also requires DAS, by July 1, 2027, and in consultation with OPM and DEEP, to develop a plan and budget to retrofit existing fossil fuel-based heating and cooling systems at state buildings to systems able to operate without carbon-emitting fuels. The plan and budget must be submitted to the Environment and Energy and Technology committees.

§ 13 — NATURE-BASED SOLUTIONS INITIATIVE

Requires DEEP to (1) evaluate how to integrate and advance nature-based solutions in specified programs to support climate change mitigation and adaptation, ecosystem resilience, and biodiversity; (2) consider specified best practices as part of this evaluation; and (3) post the evaluation on its website, hold a listening session for public comment, and give it to specified state agencies for their review and input

The bill requires the DEEP commissioner to evaluate how to integrate and advance nature-based solutions in specified programs to support (1) climate change mitigation and adaptation, (2) ecosystem resilience, and (3) biodiversity. It requires that DEEP's efforts to advance nature-based solutions be known as the nature-based solutions initiative.

Under the bill, the evaluation must examine the potential for using nature-based solutions in the following programs:

1. the microgrid and resilience grant and loan pilot program;
2. the open space and watershed land acquisition program; and
3. other applicable state and federal programs administered by DEEP that advance nature-based solutions, including (a) federal Clean Water Act programs, (b) the Long Island Sound Study program, and (c) the Urban Forestry program.

Evaluation Development

The bill requires the commissioner, as part of the evaluation, to consider best practices to encourage the use of the state's ecosystems to naturally sequester and store carbon, reduce GHG emissions, increase biodiversity, and protect against climate change impacts. These best practices include the following:

1. increasing carbon sequestration through increased forest acreage

(e.g., by reforestation);

2. controlling invasive species;

3. encouraging soil health across all landscapes;

4. protecting carbon stocks by avoiding conversion of forests and wetlands to other purposes;

5. restoring habitats to improve biodiversity;

6. increasing climate-smart agriculture and soil conservation to reduce GHG emissions while improving habitat and protecting biodiversity;

7. increasing community resilience by improving water quality and addressing flooding and drought through nature-based stormwater management and shoreline protection that uses nature-based approaches (e.g., living shorelines);

8. improving air quality and reducing urban heat island effects through urban forestry and increasing green spaces; and

9. increasing access to open spaces for public health benefits.

Under the bill, the commissioner must (1) post the nature-based solutions initiative program evaluation on DEEP's website by July 1, 2026, for review and written comment and (2) hold a listening session after the report is posted to obtain public comment. She must also give it to the following agencies for review and input: the Agriculture, Housing, Insurance, Public Health, and Transportation departments; the Connecticut Green Bank; and OPM.

§ 14 — SOLAR CANOPY STRATEGIC PLAN

Requires PURA to report to the Energy and Technology Committee on a solar canopy strategy and program design

The bill requires the PURA chairperson, by January 15, 2027, to submit a report to the Energy and Technology Committee on the results of a study to develop a solar canopy strategic plan and program design.

The plan must:

1. identify opportunities for solar canopies in the state and examine different methods to promote them,

2. prioritize their development in environmental justice communities, and

3. recommend policies, programs, or regulations that would promote their construction according to GHG reduction goals.

§ 15 — ENERGY COSTS REPORT

Requires DEEP to report to the Environment and Energy and Technology committees on lowering energy costs, increasing community extreme weather resilience, and contributing to GHG emission reductions

The bill requires DEEP, by February 1, 2026, to submit a report to the Environment and Energy and Technology committees on recommended regulations, policies, and strategies to (1) significantly lower energy costs for families and businesses, (2) increase community resilience to extreme weather events (e.g., flooding and extreme heat), and (3) contribute to GHG emission reductions.

The report may use modeling scenarios concerning GHG emissions, and the commissioner may engage a consultant to help prepare all or part of it.

§ 16 — PURA PROCEEDING FOR UTILITY-SCALE RENEWABLE THERMAL ENERGY NETWORKS

Requires PURA to establish a utility-scale renewable thermal energy network program, including a pilot component, working group, and study

The bill requires PURA to start a proceeding within 12 months after the bill passes to establish a program for gas companies to develop utility-scale renewable thermal energy networks. Under the bill, a network is distribution infrastructure to provide thermal energy for the following uses:

1. space heating and cooling,

2. domestic hot water production,

3. refrigeration,

4. thermal energy storage, or

5. commercial and industrial processes that require heating or cooling.

These networks are implemented through interconnections between at least one renewable thermal energy resource, which may be owned by multiple parties, and heat pumps in multiple buildings owned by multiple parties. Renewable thermal energy is (1) ambient heating or cooling provided, absorbed, or stored by geothermal well boreholes or other non-combusting, non-nuclear thermal resources that does not consume fossil fuel or (2) thermal energy otherwise lost to the atmosphere or other environmental compartment as waste heat.

The bill requires PURA to develop parameters, as well as procedures or filing proposals, for the networks. PURA must also develop a standardized data collection system that allows it and the public to track a network's status and performance. The bill requires PURA to have data it collects evaluated by a third party to ensure transparency and validity of project outcomes.

The bill specifies that it does not prohibit a municipality from developing, owning, or maintaining a utility-scale renewable thermal energy network.

Ratepayers' Best Interest

The bill requires PURA to structure the utility-scale renewable thermal energy network program in the best interest of utility ratepayers. PURA must base its best-interest determination on the (1) reasonableness of the project's size, scope, scale, and character; (2) related budget; and (3) project's costs and benefits. Under the bill, the costs and benefits PURA must consider include at least the following:

1. avoided long-term energy and infrastructure investments in extending or maintaining gas infrastructure;

2. the project's anticipated contribution to easing seasonal strains on the state's natural gas supply and electric distribution system;

3. consumer protections and benefits for the project's end users;

4. adherence to best practices emerging from thermal energy network programs and project designs developed in other states or elsewhere in the state;

5. a project's potential to accrue capital and operational cost savings through interconnection with other existing or future networks;

6. adherence to workforce development practices, including the adoption of wage standards and the use of registered apprentice programs approved by the Labor Department;

7. air quality improvements in the buildings and neighborhood a project serves;

8. GHG emissions reductions that contribute to meeting the state's goals; and

9. the potential rate impact on any class of ratepayers, including a distributional equity analysis that details the benefits to and burdens on any such class of ratepayers.

The bill allows PURA to approve a utility-scale renewable thermal energy network proposal that meets PURA's parameters for the program.

Pilot Component

The bill requires PURA to create a pilot component within the program that requires each gas company to file proposals for one or two pilot projects to develop networks that meet PURA's program parameters. It requires PURA to review proposals based on the program parameters and the project's ability to provide insights into the potential for (1) scaling up future network deployment in the state, (2) improving network performance, and (3) reducing the cost to deploy networks

more broadly.

Rate Structures, Cost Recovery, and Other Obligations

Under the bill, PURA must require any network projects submitted to the program include (1) a proposed rate structure for thermal energy services supplied to network end users and (2) consumer protection plans for end users. The bill allows PURA to approve proposed rate structures if the projected heating and cooling costs for end users is no greater than the costs that would occur had they not participated.

The bill requires PURA to consider the appropriate cost recovery methodology for incentives established according to these provisions as part of its proceeding on the future of natural gas distribution (see § 4). (It is unclear what "incentives" this refers to.) It allows a gas company to meet its obligation to furnish adequate service at reasonable rates through an approved project.

Working Group and Study

As part of the program, the bill requires PURA to establish a working group to study thermal energy networks. The working group must include staff from PURA, DEEP, the Connecticut Green Bank, gas and electric companies, the Connecticut State Building Trades Council, and nongovernmental environmental organizations.

The bill requires PURA to do at least one study through the working group to assess the potential breadth of thermal energy network deployment in the state. The study must address (1) technical and economic feasibility; (2) deployment strategies to maximize the scope and minimize and equitably allocate network costs, including systematically identifying significant waste heat sources across the state; (4) deployment considerations; and (5) appropriate parameters for broader deployment in the near and medium term.

The study's economic feasibility analysis must consider the potential for the following:

1. reduced (a) energy costs for customers who are off-takers of the

system, (b) network capital costs as deployment scale increases, and (c) capital and operating costs as thermal energy networks are connected;

2. avoided costs of expanding and maintaining the gas distribution system;

3. minimized costs of expanding the electricity distribution system to facilitate increased electrification of thermal loads;

4. reduced per-kilowatt-hour costs to supply electricity as more electricity is sold;

5. available state and federal financial incentives;

6. employing gas utility workers and advancing their skills;

7. providing gas utility companies a business model that is not dependent on continued fossil fuel combustion; and

8. air quality improvement.

The study must consider deployment in low- and moderate-income communities, environmental justice communities, new residential and commercial buildings versus retrofitting, urban versus rural communities, and areas with existing gas services versus areas without, as well as ownership and business models.

The study's consideration for appropriate parameters for broader deployment must include the following:

1. site selection,

2. network design,

3. interactions with and impacts on the gas and electric distribution system,

4. ratepayer and consumer protections,

5. billing models,

6. data collection, and

7. community engagement and deployment in low- and moderate-income communities and environmental justice communities.

§ 17 — RENEWABLE THERMAL ENERGY NETWORK INCENTIVE PROGRAM

Requires gas companies to develop incentive programs for connecting customers to municipally owned renewable thermal energy networks; requires gas companies to design their program with the best interest of public service ratepayers in mind; requires renewable thermal energy network owners to have transparency and validity of outcomes in their operations

The bill requires gas companies to develop incentive programs for renewable thermal energy networks, as described above, that will be owned by municipal entities to reduce the state's demand for natural gas and electricity. Under the bill, these municipal entities include municipalities, municipal utilities, municipal electric energy cooperatives, and entities that are contractually obligated by a municipality to construct, operate, and maintain a renewable thermal network.

Program Design and Cost Recovery

The bill requires gas companies to provide incentive payments to municipal entities to connect customers to the network. Incentive payments must be based on the projected reduction in the contractually obligated demand for natural gas and electricity over a 20-year period. This projection must be based on the expected gas or electric demand that the renewable thermal loop (presumably network) is displacing.

The bill requires gas companies to design their renewable thermal energy networks in the best interest of utility ratepayers and to submit their program designs to PURA for review and approval.

PURA must base its best-interest determination on the (1) reasonableness of the project's size, scope, scale, and character; (2) related budget; and (3) project's costs and benefits. Under the bill, the costs and benefits PURA must consider include at least the following:

1. any avoided long-term energy and infrastructure investments in extending or maintaining gas infrastructure,

2. the project's anticipated contribution to easing seasonal strains on the state's natural gas supply and electric distribution system,

3. consumer protections and benefits for the project's end users,

4. adherence to best practices emerging from thermal energy network programs and project designs developed in other states or elsewhere in the state,

5. a project's potential to accrue capital and operational cost savings through interconnection with other existing or future networks,

6. air quality improvements in the buildings and neighborhood a project serves, and

7. GHG emission reductions that contribute to meeting the state's goals.

The bill requires PURA to consider the appropriate cost recovery methodology for the incentives as part of its proceeding on the future of natural gas distribution (see § 4).

Network Outcomes

Under the bill, renewable thermal energy network owners must submit performance and status tracking data to PURA to ensure transparency and the validity of network outcomes.

§ 18 — GAS EFFICIENCY AND ACTIVE DEMAND RESPONSE

Expands an existing procurement authorization to include active demand response projects and gas demand response projects

Current law authorizes DEEP to solicit proposals for passive demand response measures to reduce demand and improve reliability and direct electric distribution companies (EDCs, i.e. Eversource and United Illuminating) to enter 20-year contracts for selected projects. The bill expands this authorization (1) to include active demand response

measures, and (2) by allowing DEEP to solicit and direct gas companies into 20-year contracts for active or demand response proposals. (Generally, "demand response" refers to measures designed to save energy. Passive measures reduce energy demand at all times, while active measures can be activated when needed.)

The bill correspondingly (1) removes a requirement that demand response projects reduce electric demand by at least one megawatt and (2) requires gas companies, in addition to EDCs, to consult with the Energy Conservation Management Board to assess the feasibility of demand response proposals. Existing law and the bill limit these proposals to projects that are additive to existing and projected demand reduction achieved through the conservation and load management programs.

The bill requires the DEEP commissioner to consider the same factors as under current law when selecting proposals, including whether benefits to ratepayers outweigh costs, fuel diversity, and contributions to meeting state GHG reduction requirements, among other things.

Current law caps the proposals DEEP may select to 10% of EDC load, with the cap applying to the aggregate amount of proposals for demand response measures as well as proposals existing law authorizes for (1) Class I renewable energy sources (e.g., wind and solar) and Class III resources (e.g., combined heat and power) of up to two megawatts in capacity; (2) energy storage systems; (3) Class I renewable energy sources of 20 MW or larger; and (4) verifiable large-scale hydropower. The bill additionally caps the aggregate amount of these proposals at 10% of the state's gas utility load.

Current law allows the DEEP commissioner to direct the EDCs into long-term contracts for selected passive demand response measures, among other things. The bill additionally allows DEEP to direct them to enter into long-term contracts for active demand response measures and electricity time-of-use shifts and requires that active or passive demand response measures yield electric savings. It also allows the DEEP commissioner to direct the gas companies to enter long-term contracts

for active or passive demand response measures that yield gas savings or time-of-use shifts from proposals submitted under the bill, so long as the contract's benefits outweigh its costs to gas customers.

Current law requires EDCs to submit any agreement to PURA for approval and requires PURA to approve it if it is cost effective and in ratepayers' best interest. If PURA does not issue a decision within 90 days after the submission, the agreement is deemed approved. By law, EDCs must recover the net costs of agreements on a timely basis through a fully reconciling component of electric rates. The bill similarly requires gas companies to submit agreements to PURA for approval and recover net costs the same way. Under the bill, if an EDC and gas company both apply to recover net costs for the same agreement, PURA must determine which costs are attributable to each company.

§ 19 — HOUSING ENVIRONMENTAL IMPROVEMENT REVOLVING LOAN AND GRANT FUND REVISIONS

Revises the existing Housing Environmental Improvement Revolving Loan and Grant Fund to allow DEEP to enter into contracts with electrical distribution and gas companies to administer the fund; expands the pilot program to include qualifying single-family homes and expands the list of qualifying projects; requires the funding to benefit low-income residents or prospective residents, rather than be prioritized for these residents

Existing law requires DEEP, in collaboration with the Department of Housing, to start one or more pilot programs that provide financing to qualifying retrofit projects in multifamily homes located in environmental justice communities or alliance districts (e.g., energy efficiency projects or projects to address health concerns). The financing is funded through the Housing Environmental Improvement Revolving Loan and Grant Fund, with $125 million in general obligation bonds authorized to capitalize the fund.

The bill makes the following changes to the program:

1. authorizes DEEP to establish pilot programs for single-family homes in addition to multifamily homes located in the targeted areas;

2. expands the list of qualifying retrofit projects to include (a)

adding resilience measures (e.g., flood protection) and (b) replacing heating, ventilation, and air conditioning systems of homes impacted by extreme weather events;

3. allows DEEP to enter contracts with electrical distribution or gas companies, in addition to quasi-public agencies and nonprofits as existing law allows, to administer the fund; and

4. limits the projects DEEP may approve for financing under the program to those benefiting current or prospective low-income residents, rather than requiring DEEP to prioritize projects benefiting these residents.

The bill also eliminates the definitions of "environmental justice communities" and "alliance districts" but continues to limit the program to qualifying properties in these targeted areas.

§ 20 — OPEN SPACE AND WATERSHED LAND ACQUISITION GRANT PROGRAM REVISIONS

Allows a portion of OSWA program funds to be used to mitigate wildfire risks on protected land and requires the DEEP commissioner to set certain criteria for these grants

Funds Earmarked for Wildfire Risk Mitigation

The Open Space and Watershed Land Acquisition Program (OSWA), which DEEP administers, generally gives state grants to municipalities, land trusts, and water companies to buy land to be preserved as open space in perpetuity. The bill authorizes the DEEP commissioner to allocate up to 10% of the total amount of OSWA program funds to mitigate wildfire risks on protected property by managing vegetative fuel loads (i.e. plant material that can act as fuel). These funds can be used for these purposes on property purchased or protected through the program, including properties already protected by the program.

By January 15, 2026, the DEEP commissioner must establish criteria and guidelines for allocating these funds to ensure they are used efficiently and aligned with the program's goals of protecting open spaces and natural resources while reducing wildfire risk.

Urban Agricultural Sites

Existing law allows DEEP, under the OSWA, to award grants to certain municipalities and land trusts to restore or protect open space land they already own. The bill expands the allowable uses of the grants awarded for these purposes to include the development of urban agricultural sites for nonprofit or commercial use, in addition to restoration projects allowed under existing law (e.g., restoration of wetland, wildlife, or plant habitat). By law, unchanged by the bill, DEEP may award these grants to distressed municipalities, targeted investment communities, municipalities seeking to restore or protect open space in an environmental justice community, and land trusts seeking to restore or protect open space in these municipalities.

§ 21 — RENTER UTILIZATION STUDY

Requires DEEP to study renters' use of certain state energy efficiency and clean energy programs and report is findings and recommendations to the Environment and Energy and Technology committees by July 1, 2026

The bill requires DEEP to study renters' use of the state energy efficiency and clean energy programs for which it can obtain data, including any barriers renters experience accessing the programs and any recommendations for addressing them. DEEP must report on its recommendations to the Environment and Energy and Technology committees by July 1, 2026.

BACKGROUND

Related Bill

sSB 4 (File 325), favorably reported by the Energy and Technology Committee, contains substantially similar provisions (1) requiring PURA to establish a utility-scale renewable thermal energy network program (§ 7) and (2) expanding procurement authority for gas efficiency and active demand response projects (§ 5).

COMMITTEE ACTION

Environment Committee

Joint Favorable Substitute
Yea 23 Nay 10 (03/14/2025)