OLR Bill Analysis

sHB 5004

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

TABLE OF CONTENTS:

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

§ 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

§ 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

§ 14 — SOLAR CANOPY STRATEGIC PLAN

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

§ 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

§ 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

§ 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

§ 18 — GAS EFFICIENCY AND ACTIVE DEMAND RESPONSE

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

§ 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

§ 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

§ 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

BACKGROUND

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)