
OLR Bill Analysis

sHB 5004 (as amended by House "A")*

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

TABLE OF CONTENTS:

SUMMARY

§§ 1-3 — 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

§ 4 — 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

§ 5 — BENEFIT CORPORATION REGISTRATION AND RENEWAL VOUCHERS

Provides vouchers for qualifying benefit corporations for registration and renewal fees

§§ 6 & 7 — 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

§ 8 — 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

§ 9 — 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

§ 10 — 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

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

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

§ 12 — 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

§ 13 — SOLAR CANOPY STRATEGIC PLAN

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

§ 14 — ENERGY COSTS REPORT

Requires DEEP, in consultation with the Office of Consumer Counsel, 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

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

Makes various changes to the existing Housing Environmental Improvement Revolving Loan and Grant Fund and related program to, among other things, allow (1) the program to finance qualifying projects located anywhere, rather than just in targeted areas, and (2) DEEP to enter into contracts with electrical distribution and gas companies to administer the fund

§ 16 — OPEN SPACE AND WATERSHED LAND ACQUISITION GRANT PROGRAM GRANTS FOR URBAN AGRICULTURE USE

Broadens the purposes for which certain OSPA grants may be used to include repurposing open space land for urban agricultural use

§ 17 — RENTER UTILIZATION STUDY

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

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.

*House Amendment "A" eliminates provisions in the underlying bill:

1. requiring the Public Utilities Regulatory Authority (PURA) to open an uncontested proceeding on the future of the natural gas distribution system in the state in relation to the state's emission reduction levels;
2. requiring PURA to establish a utility-scale renewable thermal energy network program, including a pilot component, working group, and study;
3. requiring gas companies to develop incentive programs for connecting customers to municipally owned renewable thermal energy networks;
4. expanding an existing Department of Energy and Environmental Protection (DEEP) procurement authorization to include active demand response projects and gas demand response projects; and
5. authorizing DEEP to allot up to 10% of Open Space and Watershed Land Acquisition Program (OSWA) funding for mitigating wildfire risks on certain properties and relatedly requiring DEEP to develop criteria and guidelines for these funds.

The amendment also:

1. expands the benefit corporations that may receive vouchers under the bill to include certain certified corporations (§ 5),
2. specifies that DEEP must consult with the Office of Consumer Counsel in preparing an energy costs report to the legislature (§ 14),
3. eliminates the requirement that qualifying projects be located in targeted areas to qualify under DEEP's retrofitting project funding pilot program (§ 15), and

4. changes the types of urban agricultural projects that qualify for OSHA grants (§ 16).

EFFECTIVE DATE: Upon passage, except as noted below.

§§ 1-3 — 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

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 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 (OPM) 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.

§ 4 — 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

§ 5 — 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 give benefit corporations (b-corps) vouchers for their registration and renewal fees. (It is unclear which fees qualify for a voucher.) To receive a voucher, the b-corp must (1) give the secretary evidence that it meets state law's requirements for a b-corp or (2) be certified by an entity the secretary of state recognizes for the certification process.

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.

§§ 6 & 7 — 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.)

Starting by February 15, 2026, the council must biennially submit a report to the governor, OPM, and the Commerce, Environment, Energy

and Technology, 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.

§ 8 — 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

§ 9 — 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

§ 10 — 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.

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

Requires DAS to develop a (1) process for considering certain energy-related aspects when deciding to repair or build state real assets under its authority and (2) 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, the Department of Transportation, 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.

§ 12 — 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.

§ 13 — 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.

§ 14 — ENERGY COSTS REPORT

Requires DEEP, in consultation with the Office of Consumer Counsel, 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, and in consultation with

the Office of Consumer Counsel, or the office's designee, 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 for GHG emissions, and the commissioner may engage a consultant to help prepare all or part of it.

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

Makes various changes to the existing Housing Environmental Improvement Revolving Loan and Grant Fund and related program to, among other things, allow (1) the program to finance qualifying projects located anywhere, rather than just in targeted areas, and (2) DEEP to enter into contracts with electrical distribution and gas companies to administer the fund

Current 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. eliminates the requirement that the retrofit projects be located in environmental justice communities or alliance districts to qualify for the financing;
2. allows the program to provide financing to single-family homes in addition to multifamily homes;
3. 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;

4. 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
5. 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.

§ 16 — OPEN SPACE AND WATERSHED LAND ACQUISITION GRANT PROGRAM GRANTS FOR URBAN AGRICULTURE USE

Broadens the purposes for which certain OSWA grants may be used to include repurposing open space land for urban agricultural use

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.

Existing law allows DEEP, under OSWA, to award grants to certain municipalities and land trusts to restore or protect open space land they already own. The bill additionally allows DEEP to award these grants for repurposing the open space land for urban agricultural use. It also expands the types of restoration or protection for which DEEP may award the grants to include urban agricultural use. As under existing law, restoration or protection may also include restoring wetland, wildlife, or plant habitats or replacing vegetation.

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.

§ 17 — RENTER UTILIZATION STUDY

Requires DEEP to study renters' use of certain state energy efficiency and clean energy programs and report its 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.

COMMITTEE ACTION

Environment Committee

Joint Favorable Substitute

Yea 23 Nay 10 (03/14/2025)