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## OLR Bill Analysis

### sHB 5004

## **AN ACT CONCERNING THE IMPLEMENTATION OF CERTAIN CLIMATE CHANGE MEASURES.**

### TABLE OF CONTENTS:

#### SUMMARY

#### § 1 — CLIMATE CRISIS DECLARATION

*Declares that there is a climate crisis to (1) show urgency to enact meaningful climate legislation and (2) support efforts for federal funds to respond to the crisis*

#### §§ 2-6 — GREENHOUSE GAS EMISSIONS REDUCTION AND ZERO-CARBON GOALS

*Establishes new state GHG emissions reduction levels under the GWSA; requires a consultant-prepared report on strategies to meet the new state reduction goals; for state agencies, sets new GHG reduction goals and a goal to use only zero-carbon generating electricity; includes carbon sequestration as a strategy for reducing emissions that may be included in certain DEEP reports on the reductions; requires PURA to initiate a related docket on the future of natural gas in the state*

#### § 7 — PERMITS OF FOSSIL-FUELED ELECTRICITY GENERATING UNITS

*Requires DEEP to require an evaluation on replacing fossil-fueled electricity-generating capacity with no-emission energy or energy storage when it considers an application for a permit or permit modification for a fossil-fueled electricity-generating unit*

#### § 8 — DEEP ENERGY INFORMATION WEBSITE

*Requires DEEP to publish on its website certain information about (1) costs and sources of electricity and (2) EV power source information*

#### § 9 — JOBSCT TAX REBATE PROGRAM

*Requires 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 operations*

#### § 10 — DRS FEE WAIVER FOR CERTAIN BUSINESSES

*Requires the DRS commissioner to (1) identify business fees that are appropriate to be waived for environmentally sustainable certified B corporations and farms and (2) submit a list of the fees to the Environment Committee by January 1, 2025*

#### § 11 — 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 develop a plan to transition workers away from fossil-fuel-based jobs to those in clean energy; requires an annual report of its work to be submitted to the Environment, Energy and Technology, and Commerce committees*

**§ 12 — CI INVESTMENT REPORT**

*Requires CI to annually report to the Environment and Energy and Technology committees on investments and assistance for companies engaged in climate change mitigation matters*

**§ 13 — PURA ENERGY STORAGE PROGRAM**

*Requires PURA to expand its statewide energy storage program by increasing its (1) total storage deployment targets to 1,000 MW and (2) size of incentives under certain circumstances*

**§ 14 — SCHOOL BUILDING PROJECT REIMBURSEMENT RATE**

*Gives public school building projects that include installing a renewable energy or energy efficiency project a 10-percentage point increase to the state grant reimbursement rate*

**§ 15 — ENERGY EFFICIENCY PRODUCT STANDARDS REPORT**

*Requires DEEP to submit a report to the Environment Committee by January 1, 2025, on recommendations for changing the product energy efficiency standards law to provide for the sale and installation of certain heating and cooling systems that do not emit GHG*

**§ 16 — RESIDENTIAL HEAT PUMP SYSTEMS PLAN**

*Requires the DEEP commissioner, with the Green Bank, to develop a plan to install at least 310,000 residential heat pumps, and report on the plan to the Environment and Energy and Technology committees by January 1, 2026*

**§ 17 — LOCAL PLANS OF CONSERVATION AND DEVELOPMENT**

*Requires municipal conservation and development plans scheduled for adoption beginning January 1, 2025, to evaluate environmental sustainability and climate resiliency*

**§§ 18 & 19 — ENVIRONMENTALLY SUSTAINABLE PURCHASING MODEL POLICY**

*Requires OPM to develop a model policy for environmentally sustainable purchasing that municipalities can use; for FY 25, requires the OPM secretary to authorize LoCIP funding to municipalities that implement the model policy*

**§ 20 — STATE BUILDING ELECTRICAL SYSTEMS**

*Requires state building construction, renovation, and retrofitting to use electrical systems that do not rely on fossil fuels or GHG emissions if there is available funding*

**§ 21 — NATURE-BASED SOLUTIONS REPORT**

*Requires DEEP to submit a report to the Environment Committee by December 31, 2025, that outlines a proposed plan and program to advance nature-based solutions that support climate mitigation and adaptation*

**BACKGROUND**

**SUMMARY**

This bill establishes various requirements related to its climate crisis

declaration (see § 1), as described in the section-by-section analysis below.

EFFECTIVE DATE: Upon passage, except as noted below.

## **§ 1 — CLIMATE CRISIS DECLARATION**

*Declares that there is a climate crisis to (1) show urgency to enact meaningful climate legislation and (2) support efforts for federal funds to respond to the crisis*

The bill makes a declaration that there is a climate crisis to (1) show the urgency to enact meaningful climate legislation and (2) support increased efforts to secure federal funds to respond to the crisis. It also states that the state recognizes the (1) urgency and need to mitigate climate impacts and prepare for and manage disaster risk from climate change and (2) urgency to decrease significantly and rapidly greenhouse gas (GHG) emissions, and increase community coping capacities to handle climate change impacts.

As part of the declaration, the bill states that the crisis threatens the following:

1. the state's communities' resilience, regardless of zip code;
2. multiple aspects of the state's natural resource and infrastructure assets; and
3. the state's economy and quality of life for younger generations of state residents.

It specifies that the declaration does not permit the governor to use its statements to operate the government by executive order.

## **§§ 2-6 — GREENHOUSE GAS EMISSIONS REDUCTION AND ZERO-CARBON GOALS**

*Establishes new state GHG emissions reduction levels under the GWSA; requires a consultant-prepared report on strategies to meet the new state reduction goals; for state agencies, sets new GHG reduction goals and a goal to use only zero-carbon generating electricity; includes carbon sequestration as a strategy for reducing emissions that may be included in certain DEEP reports on the reductions; requires PURA to initiate a related docket on the future of natural gas in the state*

### **Connecticut Goals (§§ 3 & 4)**

The bill generally requires the state to reach an economy-wide net zero GHG emission reduction 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 1990 emission levels by January 1, 2020; (2) 45% below 2001 emission levels by January 1, 2030; and (3) 80% below 2001 emission levels by January 1, 2050. There is also a requirement for the state to reduce GHG emissions from electricity supplied to electric customers in the state to zero percent by January 1, 2040.

The bill sets a new GHG reduction level requirement of 65% of 2001 emission levels January 1, 2040. It also requires that, by January 1, 2050, the state be at an economy-wide net-zero level, considering carbon sequestration, as long as direct (e.g., factory stacks, manufacturing processes, company-owned or leased vehicles) and indirect (e.g., emissions from purchased electricity consumption, steam, or heating and cooling) GHG emissions are at least 80% below the 2001 level.

Under the bill, “net-zero” is the level of GHG reduction from a complete offset of emitted GHGs by GHG reduction and carbon sequestration. “Carbon sequestration” is the removal of GHGs from the atmosphere through (1) nature-based solutions like soils, forests, wetlands, or working or natural lands and (2) technological solutions with the primary purpose of removing GHGs from the atmosphere.

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).

***Consultant Report (§ 4)***

The bill requires the DEEP commissioner to contract with a

consultant to prepare a report that includes:

1. strategies to achieve the above GHG emissions reductions;
2. whether or not a strategy to achieve these reductions should include sector-specific emission reduction targets and, if so, the way and priority order to implement the targets; and
3. an evaluation of the adequacy of the state renewable portfolio standards, which are requirements for electricity providers to get part of their power from renewable sources.

The consultant's report must be submitted to the Energy and Technology and Environment committees by January 1, 2026. Under the bill, the recommendations cannot be implemented unless approved by each legislative chamber.

***State Agency Goals (§§ 2 & 3)***

The bill establishes the following GHG emissions reduction goals for state agencies:

1. 45% from 2001 levels by 2030,
2. 70% from 2016 levels by 2040, and
3. reaching a level determined to be net-zero by 2050.

The bill sets a separate goal for state agencies to use only zero-carbon generating electricity by 2030.

***Periodic Reporting (§§ 4 & 5)***

Existing law requires the DEEP commissioner, every three years and with help from a nonprofit association with northeastern state air quality and climate program expertise, to develop, with opportunity for public comment, a schedule of recommended regulatory actions by relevant agencies, policies, and other actions needed to further progress towards achieving the GHG reduction levels. The bill (1) specifies that schedule must be developed so as to attain the reduction levels by the listed dates and (2) allows the regulatory actions to include carbon

sequestration.

The bill similarly includes carbon sequestration as a proposed regulation, policy, and strategy option to achieve the emissions reduction limits that the DEEP commissioner may include in her triennial report on achieved emissions reductions to the Environment, Energy and Technology, and Transportation committees.

***PURA Docket: Future of Natural Gas (§ 6)***

The bill requires the Public Utilities Regulatory Authority (PURA) to initiate a docket, by January 1, 2025, on the future of natural gas use in the state in relation to the state’s GHG emission reduction levels described above. After completing the docket, PURA must submit a report to the Environment and Energy and Technology committees on any recommendations for legislative changes needed to implement its findings.

**§ 7 — PERMITS OF FOSSIL-FUELED ELECTRICITY GENERATING UNITS**

*Requires DEEP to require an evaluation on replacing fossil-fueled electricity-generating capacity with no-emission energy or energy storage when it considers an application for a permit or permit modification for a fossil-fueled electricity-generating unit*

The bill requires the DEEP commissioner, when considering a permit application (either a new one or a modification) from a fossil-fueled electricity-generating unit, to require an evaluation of replacing some or all of the generating capacity with energy or energy storage that does not involve emissions. It does this regardless of any existing state environmental protection laws.

Under the bill, the evaluation must be prepared by an independent contractor at the permit applicant’s expense. It must include the (1) technical feasibility of replacing or supplementing the fossil-fueled electricity-generating capacity with renewable energy or energy storage that is already in commercial use and (2) total project cost of doing so.

If the commissioner determines replacing at least some of the generators is technically and economically feasible, the bill allows her to require the permit applicant to include the no-emission energy or

energy storage as a condition of granting or modifying an air pollution permit or air pollution exemption permit.

### **§ 8 — DEEP ENERGY INFORMATION WEBSITE**

*Requires DEEP to publish on its website certain information about (1) costs and sources of electricity and (2) EV power source information*

The bill requires DEEP, by October 1, 2025, to publish on its website consolidated information on the (1) cost and sources of electricity in the state and (2) electric vehicle (EV) power source information, including EV service and supply equipment.

The posted information must include the following:

1. Class I renewable energy (e.g., wind and solar) deployments and other distributed energy resources in the state;
2. energy storage deployment in the state;
3. electricity, natural gas, and heating fuel (by fuel type) consumption; and
4. participation information for energy efficiency, federal weatherization, and efficiency barrier remediation programs.

### **§ 9 — JOBSCT TAX REBATE PROGRAM**

*Requires 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 operations*

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

The bill requires 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 sectors of the economy 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, 2024

### **§ 10 — DRS FEE WAIVER FOR CERTAIN BUSINESSES**

*Requires the DRS commissioner to (1) identify business fees that are appropriate to be waived for environmentally sustainable certified B corporations and farms and (2) submit a list of the fees to the Environment Committee by January 1, 2025*

The bill requires the Department of Revenue Services (DRS) commissioner, in collaboration with the DECD commissioner, to identify business fees that are appropriate for waiver for environmentally sustainable certified B corporations and farms. The DRS commissioner must submit a list of these fees to the Environment Committee by January 1, 2025.

### **§ 11 — 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 develop a plan to transition workers away from fossil-fuel-based jobs to those in clean energy; requires an annual report of its work to be submitted to the Environment, Energy and Technology, and Commerce committees*

The bill establishes a Connecticut Clean Economy Council to advise on strategies and policies to strengthen the state's climate mitigation, clean energy, resilience, and sustainability programs to lower emissions and advance economic and environmental justice for Connecticut residents.

#### ***Duties and Reporting Requirements***

Under the bill, the council has the following duties:

1. identify opportunities to (a) leverage state and federal funding to scale economic opportunities related to clean energy, climate, and sustainability investments and (b) maximize local economic benefits from investments needed to meet the state's climate and sustainability goals;

2. ensure the state's workforce is trained to deliver climate and sustainability solutions;
3. support equitable and diverse participation in climate and sustainability economic development opportunities from diverse employers and job seekers;
4. work with the Office of Workforce Strategy (OWS) to increase workforce training in the clean energy sector, with a goal to create opportunities for populations underrepresented in the workforce (e.g., environmental justice community residents, women, minorities, and formerly incarcerated people); and
5. consult with the governor and DECD commissioner on any statewide economic action plan.

The bill requires the council to develop a plan to transition workers from fossil-fuel-based jobs to clean energy jobs, which must be submitted to the Commerce, Energy and Technology, and Environment committees by February 1, 2026. It also requires, beginning by February 1, 2025, the council to submit an annual report to these same three committees, the governor, and the Office of Policy and Management (OPM), on its work, findings, and recommendations.

The bill allows the council to form working groups to address workforce development in specific sectors in the clean energy and sustainability fields.

### ***Membership and Meetings***

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

1. the DECD, DEEP, Department of Transportation, and OWS commissioners, or their designees;
2. the OPM secretary or his designee;
3. the Connecticut Green Bank and Connecticut Innovations, Inc. (CI) chief executive officers, or their designees;

4. a representative from the governor's office; and
5. any other members the cochairpersons designate.

The council cochairpersons are the DECD and DEEP commissioners, or their designees. A majority of the members of the council constitutes a quorum. Additional members designated by the cochairpersons serve at their pleasure.

## **§ 12 — CI INVESTMENT REPORT**

*Requires CI to annually report to the Environment and Energy and Technology committees on investments and assistance for companies engaged in climate change mitigation matters*

By January 1, 2025, the bill requires CI to begin annually reporting to the Environment and Energy and Technology committees on investments and assistance given to companies that are engaged in climate change mitigation matters. CI is a quasi-public agency that gives financing and support to businesses in the state.

## **§ 13 — PURA ENERGY STORAGE PROGRAM**

*Requires PURA to expand its statewide energy storage program by increasing its (1) total storage deployment targets to 1,000 MW and (2) size of incentives under certain circumstances*

The bill requires PURA to expand its statewide energy storage program by increasing its (1) cumulative storage deployment targets to 1,000 megawatts (MW) and (2) size of incentives if PURA concludes that it is reasonable and prudent to do so and provides value to ratepayers. Currently the program is designed with an end goal of deploying 580 MW of electric storage by 2030 and provides up-front and performance-based incentives. Energy storage systems are generally technology capable of absorbing energy, storing it, and then dispatching it (CGS § 16-1(48)).

EFFECTIVE DATE: July 1, 2024

## **§ 14 — SCHOOL BUILDING PROJECT REIMBURSEMENT RATE**

*Gives public school building projects that include installing a renewable energy or energy efficiency project a 10-percentage point increase to the state grant reimbursement rate*

The bill makes local or regional boards of education eligible for a 10-

percentage point increase to their state grant reimbursement rate for school building projects, including renovations, that involve the installation of a renewable energy or energy efficiency project.

EFFECTIVE DATE: July 1, 2024

### **§ 15 — ENERGY EFFICIENCY PRODUCT STANDARDS REPORT**

*Requires DEEP to submit a report to the Environment Committee by January 1, 2025, on recommendations for changing the product energy efficiency standards law to provide for the sale and installation of certain heating and cooling systems that do not emit GHG*

The bill requires the DEEP commissioner to submit a report to the Environment Committee by January 1, 2025, on recommendations for changing the product energy efficiency standards law to provide for the sale and installation of heating, ventilation, and air conditioning systems, hot water heating systems, and geothermal systems that do not emit GHGs. The recommendations must include suggested implementation dates and proposed consumer education efforts.

EFFECTIVE DATE: October 1, 2024

### **§ 16 — RESIDENTIAL HEAT PUMP SYSTEMS PLAN**

*Requires the DEEP commissioner, with the Green Bank, to develop a plan to install at least 310,000 residential heat pumps, and report on the plan to the Environment and Energy and Technology committees by January 1, 2026*

The bill requires the DEEP commissioner, together with the Connecticut Green Bank, to develop a plan to install, within available resources, at least 310,000 heat pumps for residential heating systems through the existing multifamily retrofit pilot program for homes in environmental justice communities and low interest energy efficiency loan, residential heating equipment financing, and affordable housing energy efficiency retrofit grant programs.

Under the bill, the commissioner must submit a report to the Environment and Energy and Technology committees by January 1, 2026, on the plan's status to reach the goal and any related recommendations to expand or revise the plan.

EFFECTIVE DATE: October 1, 2024

## **§ 17 — LOCAL PLANS OF CONSERVATION AND DEVELOPMENT**

*Requires municipal conservation and development plans scheduled for adoption beginning January 1, 2025, to evaluate environmental sustainability and climate resiliency*

The bill requires municipal plans of conservation and development that are scheduled for adoption beginning January 1, 2025, to evaluate the municipality's environmental sustainability and climate resiliency.

By law, each municipality must have a plan of conservation and development. Plans of conservation and development are statements of development, resource management, and investment policies. Municipalities must update their plans at least every 10 years.

## **§§ 18 & 19 — ENVIRONMENTALLY SUSTAINABLE PURCHASING MODEL POLICY**

*Requires OPM to develop a model policy for environmentally sustainable purchasing that municipalities can use; for FY 25, requires the OPM secretary to authorize LoCIP funding to municipalities that implement the model policy*

The bill requires OPM, in consultation with the Department of Administrative Services, to develop a model policy for environmentally sustainable purchasing that municipalities can use and implement if they so choose.

Additionally, by law, the Local Capital Improvement Program (LoCIP), administered by OPM, provides funding to municipalities for the cost of eligible local capital improvement projects. OPM distributes LoCIP funds to municipalities based on a statutory formula. In addition to the distribution, the bill requires OPM, for FY 25, to authorize funding for municipalities that implement the model policy from funds appropriated to OPM for this purpose.

EFFECTIVE DATE: Effective upon passage, except the LoCIP provision is effective July 1, 2024.

## **§ 20 — STATE BUILDING ELECTRICAL SYSTEMS**

*Requires state building construction, renovation, and retrofitting to use electrical systems that do not rely on fossil fuels or GHG emissions if there is available funding*

The bill requires, if funding is available, new or existing state buildings to be constructed, or retrofitted during a major renovation, with electrical systems that do not rely on fossil fuels or GHG emissions

to operate. It requires this regardless of the state's real property laws.

## **§ 21 — NATURE-BASED SOLUTIONS REPORT**

*Requires DEEP to submit a report to the Environment Committee by December 31, 2025, that outlines a proposed plan and program to advance nature-based solutions that support climate mitigation and adaptation*

The bill requires the DEEP commissioner to prepare a report outlining a proposed plan and program to advance nature-based solutions in the state that support climate mitigation and adaptation. By December 31, 2025, the commissioner must submit the report to the Environment Committee.

### ***Plan Contents***

Under the bill, the report must (1) include an analysis of the plan's associated funding needs; (2) identify potential federal, state, and other funding sources; and (3) have a proposed timeline to implement the plan no later than July 1, 2026.

### ***Program Provisions***

Under the bill, the nature-based solutions program must include:

1. increasing carbon sequestration through increased forest extent (e.g., reforestation) and growing forests to greater maturity;
2. controlling invasive species;
3. protecting carbon stocks by avoiding conversion of forests and wetlands to other purposes;
4. restoring coastal habitats; and
5. increasing climate-smart agriculture and soil conservation to reduce GHG emissions while improving habitat and protecting biodiversity.

The bill also allows the program to include provisions on the following:

1. land and conservation easement acquisition (a) for upslope

- advance zones next to tidal marshes or (b) in riparian areas next to cold water streams;
2. a comprehensive modeling assessment of inland migration of tidal marshes needed to inform adaptation decisions;
  3. regulation adoption or amendments that provide necessary stream flow levels to ensure resilience and ecological integrity of cold water streams;
  4. increases in active upland forest management to improve regeneration, diversity, and resilience;
  5. collaboration with other northeastern states and federal agencies to develop a coordinated regional adaptation approach to conserve habitats and species at risk; and
  6. increases in connectivity among habitats.

## **BACKGROUND**

### ***Related Bills***

sSB 11 (File 198), favorably reported by the Environment Committee, among other things, requires local plans of conservation and development to also include a climate change vulnerability assessment and other information related to threats and vulnerabilities from hazards, natural disasters, and climate change (§§ 11 & 12).

sHB 5356, favorably reported by the Energy and Technology Committee, among other things, requires the DEEP commissioner to study the state's natural gas capacity, including ways to expand it, and report her findings and recommendations to the Energy and Technology Committee by January 1, 2025.

## **COMMITTEE ACTION**

Environment Committee

Joint Favorable Substitute

Yea 23    Nay 11    (03/20/2024)