

Environment Committee JOINT FAVORABLE REPORT

Bill No.: HB-5004

AN ACT CONCERNING THE IMPLEMENTATION OF CERTAIN CLIMATE

Title: CHANGE MEASURES.

Vote Date: 3/20/2024

Vote Action: Joint Favorable Substitute

PH Date: 3/8/2024

File No.:

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SPONSORS OF BILL:

Environment Committee

REASONS FOR BILL:

Climate change poses a threat to the state of Connecticut, with increasing demand for efficient solutions to the problems it causes and will continue to cause. The development of a plan to transition CT to a carbon neutral state must be laid out clearly and early to allow for the worst repercussions of climate change to be avoided. This bill lays out many plans the state and local governments must make to combat climate change.

SUBSTITUTE LANGUAGE:

The substitute language removed the language allowing for claims to be made against the state for failure to comply with its GHG emission goals.

Section 6 was altered to require a PURA docket on the future of natural gas use in the state.

Section 7 was changed to allow the commissioner of DEEP to authorize non-emitting sources when reviewing and issuing permits.

Section 12 established a report to be made by Connecticut Innovations.

Sections 18 and 22 moved certain deadlines.

RESPONSE FROM ADMINISTRATION/AGENCY:

Katie Dykes, Commissioner, Department of Energy and Environmental Protections

DEEP believe this bill is necessary to meet our 2030 and 2050 emission reduction targets, although they feel our 2050 target is no longer in line with current scientific recommendations. They believe important planning frameworks and regulatory tools will bring Connecticut's greenhouse gas mitigation in line with other states. They provide the following notes on different sections from the bill:

Section 2: DEEP support the goals for state agencies, the forty-five percent reduction target, and the state directive for agencies to utilize zero carbon electricity by 2030. The Climate Alliance that Connecticut is a member of is committed to achieving overall net-zero greenhouse gas emissions, which is also in line with the United States Nationally Determined contribution under the Paris agreement.

Section 4 (a): DEEP support the inclusion of net zero greenhouse reduction and the inclusion of carbon sequestration as a tool. They state the provision retains the existing goal of emissions and adds a 2040 emission reduction-target.

Section 4 (e): This subsection declares failure is contributing to the unreasonable pollution or impairment of the public trust and is enforceable under CEPA. DEEP request that if the legislature advances and C.G.S. section 22a-200a becomes enforceable, there must be funding provided, a regulatory authority, and other programmatic support to ensure the success of reaching the targets.

Section 4 (b, c, and d): DEEP provide three technical language changes to this section but supports the intent of the section.

Section 7: This section gives directions to state agencies when making administrative decisions from planning to permitting. DEEP believe these decisions to be consistent with the Global Warming Solutions Act. DEEP appreciate the concept but believe the language should be more specific to avoid potential challenges and unintended consequences. One option could be DEEP's proposal in Section 5 of SB-1145 from 2023.

Section 8: DEEP supports providing stakeholders with a consolidated web-based location, but to avoid duplication, they suggest several resources already available to the public. The Energy Price and Supply Information Dashboard, the Energize CT website, CT's Energy Efficiency Dashboard, the PURA dashboard, and the Climate Change planning page. Though DEEP do not maintain all these resources, they are working to create an online incentive tool to help residential homeowners more easily identify tools to help navigate the variety of options and programs.

Section 11: As this section codifies the Connecticut Clean Economy Council, DEEP welcomes a chance to work with the Committee to rein in the scope of work for this council to ensure no duplication.

Section 13: This section pertains to HB-5231, and DEEP would direct the Committee to their [testimony](#) on that bill.

Section 16: DEEP request clarification regarding this section. To study and make recommendations on current product efficiency are readily available in Connecticut would be difficult as they are already highly energy efficient. They suggest reviewing the agency-sponsored proposal in bill SB-301.

Section 17: DEEP supports the use of heat pumps for energy efficient residential heating and cooling, as it is an alternative to fossil fuel heating and a critical tool in the states strategy to lower its greenhouse gas emissions. DEEP's Greenhouse Gas Inventory report details the building sectors responsibility for approximately 30% of GHG emissions. The increasing demand for air conditioning necessitates meeting this demand with the most energy efficient technology. The Unites States Climate Alliance has agreed to quadruple the number of heat pump instillations by 2030. The demand for energy efficiency is a positive development but puts additional strain on limited program budgets.

Section 18: DEEP believe municipalities need careful planning to reduce greenhouse gas emissions, with many municipalities already investing in sustainability and resilience planning through the Resilient Connecticut program. DEEP believe this section aligns with the Governor's Bill SB-11.

Section 21: This section calls for new or existing state building to be constructed utilizing electrical systems not reliant upon fossil fuels or greenhouse emissions per the CT High Performance Building Standards that DEEP is responsible for updating.

Section 22: DEEP generally supports the concept of developing a plan for advancing nature-based solutions, but this section directs DEEP to prepare a report no later than December 31, 2024, including analysis of the associated funding needs. DEEP recommends this section be modified to allow the report to be prepared over the course of 18 months, extending the date to December 13, 2025.

Jeffery Beckham, Secretary, Office of Policy and Management

OPM appreciate the legislature considering a whole government approach to the Governor's Council on Climate Change as directed in Executive Orders 1, 2, and 21-3. Their testimony focuses on those sections that effect our office.

Section 4: This section creates a new cause of action if the state fails to achieve greenhouse gas emissions standards. Section 22a-16 authorizes suit for declaratory and equitable relief against the state if it fails to protect the public trust in air, water and other natural stare resources from unreasonable pollution, impairment, or destruction. The testifier therefore opposes this section because it commits the state to aspirational environmental standards with an undecided penalty if it does not conform.

Section 7: OPM find this section, which identifies greenhouse gas impacts related to energy generation and transportation infrastructure, to be vague and lacking in direction. OPM state not all agencies have the in-house expertise to assess the greenhouse gas emissions; clarity is need as to specific programs, exemptions, standards, and methods to do the work by the affected agencies. They also believe there will be a significant fiscal impact with extra staffing required.

Section 8: This section requires certain data on DEEP's website. Multiple agencies are involved in collecting and reporting data and OPM encourage the use of the state's open portal (data.ct.gov) to ensure the information is accessible.

Section 12: This section requires the use of surplus property for zero-carbon companies. OPM states there are several incubation programs already in existence, and that grants present significant fiscal concerns.

Section 15: The section would increase the school building project grant by ten percentage points for renovations refurbishing renewable energy or energy efficiency projects. As currently written OPM find this language to not be clear as to how the increase applies to the grant; DAS needs to provide further information on how energy efficiency works in the program.

Section 18: OPM states municipal POCDs are already required to address specific elements of sustainability including the protection of surface and drinking waters. They suggest referring to the Governor's resiliency Bill SB-11.

Section 19 & 20: This section refers to a model policy for sustainable purchasing for voluntary municipal implementation, but the OPM believe they would not be the appropriate agency to develop such a policy. They also note the language does not make clear what types of purchase would be subject to such a policy.

Section 21: OPM believe it is not clear how the electrical system would be reliant upon greenhouse gas emissions for operation. Following Executive Order 21-3, GreenerGov is working on a heating and cooling retrofitting plan for state buildings.

Garrett T. Eucalitto, Commissioner, Department of Transportation

The DOT recognizes the significant role they play in reducing greenhouse gas and other tailpipe emissions. The DOT has set a goal to reduce vehicle-miles traveled by 5% per capita by 2030. While supportive of reducing the impact of climate change, they believe this bill would have significant impact on their project delivery as well as grants to municipalities. They note that Public Act 23-135 already requires the department to establish carbon dioxide reduction.

Section 2: DOT believe the targets set forth in section 2 conflict with the targets set forth in section 4, and that without how the penalties will be enforced there are many questions as to the penalties of "unreasonable pollution" by the state.

Section 7: DOT believe this section has the potential to significantly delay their planning, permitting, and construction of infrastructure projects. They believe there should be consideration for exemptions as to filing permit application, routine maintenance and infrastructure that reduces greenhouse gas emissions as non-vehicular infrastructure electric vehicle infrastructure. They believe there needs to be a timeframe by which the projects will be evaluated and when an agency must explain why the project is inconsistent with GHG limits. Because of these GHG emissions projects may be at risk of losing funding and they may not be able to come from the individual programs and municipalities who do not have the resources to calculate GHG emissions.

Recently issued Federal rules require state DOT and metropolitan planning to establish declining carbon dioxide targets. Governor Lamont signed Public Act 23-135 requiring a transportation carbon dioxide reduction target for the state and an associated strategy to meet that target.

Section 21: DOT suggest narrowing the definition of "renovation" so that those renovations which are miniscule are exempt, otherwise it will not be feasible to retrofit the entire electrical system for these changes.

Section 22: DOT is encouraged by the inclusion of the coastal habitat restoration but are concerned by the long-term permitting implications of section 22(C), as they worry it may cause us to consider buffers along cold-water streams as conservation areas.

The DOT also has concern that the bill does not provide exemptions for back-up generators in case of emergencies, and there is no current fossil fuel free technology that they could reliably use for this purpose to ensure ongoing operations in a long-term power outage. The bill requires them to replace existing emergency generators with an alternative that is not readily available.

Daniel O'Keefe, Commissioner, Department of Economic and Community Development

The Department requires more clarification and financial support in several sections of this bill.

Section 7: DECD request the "transportation infrastructure" be defined, as it will allow them to see if any of their administrated projects require additional considerations. If they fall within this definition, DECD will require additional staff to evaluate grants, loans, and contracts. Current Community Investment projects are some of the most difficult applications; DECD does not have the technical or experience to review and applicants do not have the technical ability to provide data

Section 9: JobsCT is intended to be an easy-to-understand tax rebate program. DECD requests any changes be simple, straightforward, measurable, and attainable.

Section 12: DECD does have the funding or staffing for a new pilot program; they request that funding be attached for this section.

Included in their testimony are several related programs which they also administer.

James Desantos, Legislative Liaison, Connecticut Green Bank

The Green Bank supports the bill but has specific comments on a few sections:

Section 3: The Bank believe the section will better position Connecticut to procure carbon reductions along with other publicly policy goals for open space, agricultural and forestland preservation, and public health.

Section 11: The Green Bank support the formalization of the Connecticut Clean Economy Council. This is a strategic measure to align with federal funding opportunities and maximizes potential incentives from federal funding mechanisms. They believe the council should embody a diverse array of perspectives and expertise to include the nature of clean energy

initiatives and workforce development. They propose the inclusion of higher education representatives along with advocates from the community college network; these institutions are incubators for future clean energy professional.

Section 14: The Green Bank wish to highlight potential issues that need to be addressed to achieve the target as proposed in this legislation:

Commercial and industrial battery storage projects in Connecticut are experiencing very long interconnection times, so utilities need to accelerate the interconnection times for all projects. Based on ESS statistics over the first two years they observe an attachment rate for residential systems of between 1 and 2 percent. Other states have significantly greater attachment rates, with 50 to 100 percent of residential rooftops having solar systems paired with batteries.

Finally, they believe a clarification is needed in the timing of the new deployment targets. It is not clear if the target should be achieved by 2030 or later.

Section 17: The Green Bank believe that Smart-E loans are an effective way to enable homeowners to afford heat pumps, but that it should be expanded to allow renters to access them also.

Section 22: The Green Bank has completed a few primers and is working with Quantified Ventures to produce an Environmental Markets Guide to help stakeholders understand the markets for carbon offsets and ecosystem services.

The Green Bank supports a nature-based solution and recommends conservation financing be included and explored with the proposed plan. They believe public and philanthropic funds are a critical piece of advancing climate mitigation and adaptation. By including conservation finance the state will be better positioned to capitalize on the most pressing needs for climate mitigation and adaptation.

Attached to their testimony are facts sheets entitled “The Green Bank Model” and “Societal Impact Report”.

Paul Aresta, Executive Director, Council on Environmental Quality

The council supports the need to reduce greenhouse gas emissions and increase community capacities of the impact of climate change. They support the provisions of section 22, requiring the Commissioner of DEEP to prepare a plan and program for advancing nature-based solutions that support climate mitigation and adaptation.

The council supports the need to reduce greenhouse gas emissions and increase community capacities of the impact of climate change.

NATURE AND SOURCES OF SUPPORT:

Representative Lucy Dathan, 142nd District, General Assembly

Our earth is heating up at a startling rate and we have just had one of the hottest summers on record with August being 2.2F warmer than average. The Representative believes this bill outlines effective and proactive steps to help fight climate change; active policies and programs are not enough, so this bill does the work we need we need to expand climate change programs.

Ed Hawthorne, President, Connecticut AFL-CIO

The AFL-CIO believe this bill to be a pivotal advancement on the issue of climate change.

Section 11: They find this section to be particularly significant to the development of a clean technology workforce. The bill does establish a basis for environmental sustainability and economic incentives, but it omits precise criteria concerning labor standards. The group believe it is vital we nurture these emerging sectors and guarantee they are quality, fair-wage employment that ensures a living wage, as well as comprehensive benefit packages, the right to unionize, foster diversity, and stimulate worker involvement with the communities. It is their belief that new jobs in the environmental sector are valuable roles that enhance the communities and the planet

William Akley, President, Gas Operations, Eversource

Eversource are committed to delivering New England's vision of a clean energy future. They support evaluating the future of natural gas, but believe **section 6** of the bill is unnecessary and inconsistent with the CES statute which includes an assessment of the future of natural gas. This section directs PURA to evaluate the same topic causing two state agencies to evaluate the same issue is inefficient. For this reason, they believe **section 6** should be deleted and DEEP should evaluate the future of natural gas in its next CES proceeding.

Section 13 suspends current caps on mandated programs as per General Statutes 16-244z. They support the goal of expanding renewable energy but believe simply suspending caps is insufficient to advance clean energy and may have unintended consequences on completion. Suspending these caps may lead to a significant increase in the number of projects receiving tariff awards but not necessarily lead to an increase in the number of projects interconnected in Connecticut. They support specifically suspending or removing the caps on commercial rooftop projects and encouraging solar development. Current program caps are an integral component of the policy of awarding incentive contracts through a competitive process supporting the most cost-effective projects.

Robert LaFrance, Director of Policy, Audubon Connecticut

The Director states scientific evidence tells us that we are experiencing both climate change and biodiversity crises. Climate change impacts habitats and ecosystems while biodiversity contributes to the effects of climate change. They believe intact natural systems mitigate and provide resiliency to climate change. Between now and 2030 Natural Climate Solutions can provide over one-third of the cost-effective climate mitigation needed to stabilize warming.

Section 22: This section includes a nature base solution that envisions a larger Nature for a Resilient Connecticut Policy. They believe this policy requires a coordinated effort by many agencies of our state government, suggesting substitute language to empower the Commissioner of DEEP chair a multi-agency commission with OPM, DOAG, and DPH.

Included in their testimony is proposed substitute language and a study from UMass Amherst on Forest Carbon.

Christopher Till, Facilities Manager, Manchester

The testifier's job gives them extensive experience overseeing sustainable school design and construction. They state the town of Manchester is a leader in sustainable school design and construction transforming our elementary schools using 21st century learning environments.

They believe Buckley Elementary School set the standard as a fully electric facility powered by 100% renewable energy from solar photovoltaic, with this design saving taxpayers \$50,000/year in utility costs.

Molly Conners, Policy Analyst-Manager, New England Power Generators Association

As a trade association representing the regions powerplants we offer a unique perspective, the association commend Connecticut for its addressing of climate change and reducing greenhouse emissions. They believe focusing on transportation and building sectors has the greatest potential for decarbonization.

It is their belief that section 7 will undermine the overall decarbonization efforts, as it may contribute to the premature and inefficient retirement of power plants. They believe power plants have led the regions carbon reduction efforts while emissions related to transportation and building sectors have held steady or only a modest decline. New Englanders will use more electricity and how the state moves forward is important for people and businesses switch to heat pumps and electric vehicles. They believe the section works against those goals by ignoring the larger realities of the electric grid. It is their belief that mandating a 100% clean electricity requirement by an arbitrary date is disconnected from sensitive needs of the electric grid there could be implications for power system reliability; if fossil fuel unit retire before carbon-free generation has come online consumer will face higher prices for a less reliable system. To achieve substantial carbon emissions reductions, they suggest the state must take a holistic approach that supports electrification of transportation and buildings that make up the bulk of the state's emissions.

Dr. Elizabeth Allured, Licensed Clinical Psychologist

The testifier believes climate change poses a serious public health risk; the loss of one's home and community due to catastrophic weather can lead to serious psychological trauma. The testifier states that rising temperatures have been linked to increased suicide rates, infertility, and birth defects, as well as mental and behavioral health conditions including depression, anxiety, trauma, and substance misuse. The Yale Program on Climate Change 2023 found that 64% of Americans are worried about global warming. In addition, they state that the state's population is being exposed to high levels of air pollution rising temperatures and unpredictable that impact the state's agriculture production.

Aziz Dehkan, Executive Director, CT Roundtable on Climate and Jobs

The Director testifies that it is in our best interest to reduce emissions, as addressing climate change is essential for protecting the environment and public health, as well as for promoting economic growth and ensuring the long-term well-being of Connecticut residents.

Frank Amaefuna

As a healthcare provider the testifier particularly supports sections 2-4. They testify that healthcare waste incineration has been documented to release harmful pollutants into the air, and that healthcare facilities are the second-largest contributors to landfill waste, most of which is incinerated and contributes to air pollution. They believe that they bear a responsibility to mitigate the adverse effects of healthcare activities on our environment and the health of our patients.

Jill Amari, Sacred Heart University

As a staff member and alumna of Sacred Heart University climate action has always been one of their top priorities. They believe in an updated Global Warming Solutions act that gets

us back on track to hit our greenhouse gas reduction goals. They believe Connecticut must deploy more clean energy, incentivize solar and battery storage and leverage federal funding; investing in the green economy will build a healthier future.

Kevin Banach

The testifier believes Connecticut can't afford another year of inaction on an updated Global Warming Solutions Act to get us back on track for the state's greenhouse gas reduction goals. They believe the state needs to deploy more clean energy and to use it wisely.

Meredith Barges, Co-Chair, Lights Out Connecticut

The testifier believes this bill is a comprehensive approach for curbing greenhouse gas emissions in the state and slowing the rate of climate change. They believe the state should do more with this bill by recognizing that reducing energy use and energy waste is essential in the fight against climate change. They state there is a large amount of energy waste for lighting and that there is a lack of awareness of the connection between energy waste, greenhouse gas emissions, and climate change. They believe that by limiting energy waste on lighting, we can reduce light pollution and help the environment.

Cate Grady-Benson, Executive Director, Farmington Land Trust

The Director believes the effects of climate change on the Farmington and Pequabuck rivers through Farmington is evident by the frequent flooding and erosion of the riverbanks that introduce invasive species into our properties via the encroaching water. They recount how roads have been closed for several days, causing delays and increased traffic issues. They believe this bill is essential for our environment, public health, and economy for future generations.

Xander Bayanilla, Greater Hartford Environmental Coalition

The testifier believes reducing emissions will not meet all the challenges we need to deploy more clean energy and use the energy we have wisely. This bill encourages sustainable businesses, workforce development and protects and restores Connecticut's forests and tidal wetlands.

Jane Brawerman, Executive Director, Connecticut River Coastal Conservation District

As one of the state's five nonprofit soil and water conservations districts, the group work to protect our natural resources through education and technical assistance. This bill requires development of strategies to advance nature-based climate solutions. They believe nature-based solutions like waterside buffers, wetlands, trees, forests, healthy soils, and land conservation enhance resilience from storms and prevent costly restoration measures.

Lori Brown, Executive Director, CT League of Conservation Voters

The testifier believes reestablishing Connecticut's commitment to addressing climate change and protecting public health is common-sense and positive. They believe all twenty-two sections are important, but they emphasize four areas of suggested improvements:

- 1) Updating the global warming solutions act to reach net zero emissions economy-wide by 2050. This calls for a plan outlining strategy to meet these targets and has a Citizen Suit provision to enforce the Act.
- 2) Expanding the pace and scale of solar energy coupled with battery storage.
- 3) Installing 310,000 heat pumps by 2030 and supporting ultra-energy efficient buildings.

4) Directing DEEP to develop a plan using nature-based solutions for both mitigating and adapting to climate change.

Alicea Charamut, Executive Director, Rivers Alliance

The testifier draws attention to Section 22 of the bill, providing for a program for advancing nature-based solutions in the state. They believe such a program will require a coordinated effort by many state agencies and therefore they ask that the committee consider implementing substitute language to require DEEP to prepare a report outlining proposed plan and programs for advancing nature-based solutions in the state:

Sec. 22. (NEW) (Effective from passage) [(a) The Commissioner of Energy and Environmental Protection shall prepare a report that outlines a proposed plan and program for advancing nature-based solutions in the state that support climate mitigation and adaptation. Such report shall include, but not be limited to, an analysis of the associated funding needs for such plan, an identification of potential federal, state, or other funding sources and a proposed timeline for implementation of such plan, provided such plan shall be implemented not later than July 1, 2025. Not later than December 31, 2024, the commissioner, in accordance with section 11-4a of the general statutes, shall submit such report to the joint standing committee of the General Assembly having cognizance of matters relating to the environment.]

Susan Eastwood, Chair, Ashford Clean Energy Task Force

The task force believes this bill advances the goal of reducing greenhouse gas emissions by planning and investing in green economy startup businesses. They believe heat pump deployment targets establish a plan for money and energy savings ways to heat your home, water, or even dry your clothes. They express the belief that Connecticut must reach its GHG reduction targets.

Teresa Eickel, Executive Director, Interreligious Eco-Justice Network

The Network notes that most faiths speak about the role of stewards of the planet. Faith-based groups have been responding to and writing about climate change for many years. The Network supports passing the bill because it declares a climate crisis, updates the global warming solutions act, prioritizes economic and environmental justice, directs PURA to open a docket to explore reducing our reliance on natural gas encourages green jobs and include nature-based solutions.

Natalie Burdick, Ledyard High School

The testifier believes recycling is important because it helps with the health of the entire world; not recycling takes away our natural resources, causes pollution, negatively contributes to climate change and economic impacts. They conclude that climate change is changing the environment and the air, and we need to decrease greenhouse gas emissions.

Ruth Canovi, Director of Advocacy for the American Lung Association

The Association is very concerned about the quality of air we breathe; our State of the Air Report looks at two dangerous pollutants – ozone pollution and particulate matter pollution. The 2023 report gave half of Connecticut's eight counties failing grades for ozone levels. They note everyone gained firsthand experience with the impact of wildfire smoke has on the air we breathe. Outdoor workers, older adults, children, and pregnant individuals face the greatest risk from pollution worsened by climate change; they believe climate change is a

health emergency as many of the sources of climate pollution harms the health at the same time.

Alan Cavagnaro, Planning and Zoning Commissioner, South Windsor

As a full-time student at the University of Connecticut, and on the planning and zoning commission, the testifier believes that climate change is real and poses a threat to all of us and the next generation of families and students. The bill incentivizes development of clean energy projects and sets new standards for GHG emissions. Section 18 impacts the work the testifier does on the municipal level, but they believe there is one small technical concern; the effective date of July 1, 2024 is too soon. The planning process for a POCD ranges from 18-24 months and some municipalities currently may be in the process of finalizing their plans and will not have the tie to follow through with climate resiliency in their final plans.

Nathan Frohling, Director of External Affairs, The Nature Conservancy

TNC's mission is to conserve the lands and waters with the support of over a million members globally. They believe this big and multi-faced climate bill remains critically necessary for the state to do its part to address climate change and all that is included in those measures to accomplish the goals.

Joan Nichols, Executive Director, Connecticut Farm Bureau Association

The Farm Bureau believe farmland and working land can be an important contributor to mitigating the adverse effects of climate change, and the incentives and initiatives that help farmers are part of the solution. They note how section 9 provides opportunities for farming sustainable operations, and section 22 includes increasing climate-smart agriculture and soil conservation practices. They believe farmers are at the forefront of battling adverse impacts of climate change and look forward to a seat at the table to help the state meet its goals for the reduction of greenhouse gas emissions.

Amy Blaymore Patterson, Executive Director, Connecticut Land Conservation Council

The testifier supports the bill but has a few suggestions to modifications to the language in section 22 that will strengthen and improve it in the long-term. They suggest that DEEP have a standing committee on nature-based solutions, as this will ensure an ongoing and coordinated approach to improving the environment.

Eliza Paterson, Policy Associate, American Farmland Trust's New England

The Trust notes how extreme climate events are becoming a pressing issue for Connecticut's working lands. They believe this bill provides numerous provisions to help the state move forward. They request that Section 22 be amended by adding the following:

Adding carbon storage in addition to sequestration in subsection (b)(1); avoided conversion of farmland in addition to wetlands and forests in subsection (b)(4); and soil health practices rather than soil conservation in subsection (b)(6).

They also suggest that food security be added as an improvement goal in subsection (b)(6). In subsection (c) WLA suggests including aquifer recharge areas, floodplains, and prime farmland soils. Finally, they suggest adding an additional subsection (c)(8) to include regional food security.

They believe this will aid in the reduction of greenhouse gas emissions, improve surrounding habitats and economics, and support agricultural productivity.

Chris Phelps, State Director, Environment Connecticut

The testifier believes that Connecticut has fallen behind on its efforts to meet the pollution reduction requirements of the GWSA. They believe this bill provides multiple provisions to get the state back on track, and that without action by policy makers our environment, public health, and economy will continue to worsen in the years to come.

James Coyle, Chairman, Ridgefield Conservation Commission

Having worked nearly 50 years in the environmental field, the testifier believes climate change is a serious challenge to the survival of humanity. They believe trees and plants are our soldiers in the war against climate change and that we need to plant and conserve them. They believe this bill is a good start in recognizing the importance of trees in fighting climate change.

CT Coalition for Climate Action

As a broad-based group of 40+ organizations, the Coalition believe in healthy homes and resilient communities. Data shows that sea level rise in Long Island Sound is more than 50% higher than the global average and water temperature is 4 times higher than the global average. They believe now is the time for action and decisive legislative measures must be enacted.

Theresa Donovan, Co-Chair Conservation, Branford Garden Club

The Club believes Connecticut must deploy more clean energy and use it wisely. They find that sections of this bill show us how to do that efficiently and how to build a healthier future by investing in the green economy. They suggest that reducing emissions won't meet all the challenges, so we need the bill in its entirety.

Aaron Dollar, Professor, Yale University

As chair of the Open Space Committee in the town of Killingworth, the testifier believes the bill is essential for safeguarding our environment, public health, and economy for future generations to support this bill in its entirety.

Charles Rothenberger, Attorney, Save the Sound

The testifier states that in the Northeast their communities have recognized the environmental and economic imperative to reduce greenhouse gas emissions. They support provisions in the bill to:

Looking to our Neighboring States: Many of our neighboring states have eclipsed CT's GHG reduction levels by requiring all of government to review the impact of actions on the climate.

Updating GHG Emission Targets: The group are pleased to see the introductions of a net-zero standard by 2050.

State Agency Accountability: The group strongly support plans being acted upon to ensure material progress.

Enforceability of Global Warming Solutions Act Compliance: The group supports enforceability measures to mandate the state act in accordance with the Global Warming Solutions Act.

They suggest the following amendments to the bill:

Authority to adopt policies and regulations to meet our greenhouse gas reduction obligations: The group would like to see agencies be granted the power to promulgate regulations rather than just recommend them.

Future of Gas Docket: The group would like to see a system similar to Massachusetts on the future of gas within the state, with incentives shifted and modernization costs restricted to shareholders.

Commercial Solar Programs: The group has concerns that eliminating the annual capacity cap without changing the price cap will result in all project bids to be priced at this cap.

Energy Storage and more efficient school buildings: The group supports both these sections.

Heat pumps, hot water heaters, and state buildings: They suggest a January 1st, 2030 deadline to meet the 310,000 heat pump deployment target to bring it into line with the U.S. Climate alliance.

Maggie Favretti, Founding Director, Alliance for the Mystic River Watershed

The testifier states Mystic is among the top destinations in New England and there have been times when there is flooding in the historic commercial area. They state that over 1000 properties, mostly residential, will be flooded at every high tide by 2050. They also note that because of stormwater pollution commercial oyster beds must close until the oysters are safe to eat anytime there is a rain event over an inch and a half; they note last year nearly half of their sales were lost. They suggest that even stopping contributions to global warming today will take a long time for the increased oceans temperature to slow down and stop, and that strengthening the bill to promote regenerative design either as a requirement or a preferred goal.

Ann Gadwah, Advocacy and Outreach Organizer, Sierra Club Connecticut

The testifier notes that according to the Intergovernmental Council on Climate Change, human caused global warming is an existential threat to human and planetary health. They believe the bill takes us into the clean energy future we need with solar, heat pumps, energy efficiency, and other renewable energies. **Stephen Lewis** also submitted testimony on behalf of the Sierra Club.

Tom Swan, Executive Director, Connecticut Citizen Action Group

The testifier believes climate change is more destructive every year and the state has fallen behind our 2030 and 2050 target emissions. In their testimony they have concentrated their support on sections 2, 4, 6, 13, 14, 17, and 21 of the bill.

Jonathan Gorham, Chair, Clean Energy Task Force, President Massaro Community Farm

As an active member of the Third Act CT, a volunteer organization to promote climate stability, the testifier supports the bill. They state that based on personal experience working to restore and abandoned farm in Woodbridge CT, there are two elements that they believe deserve attention:

1) Enhancement of nature-based solutions

2) Increased training for the transition from fossil fuel to renewable energy jobs. At Massaro Farm we have implemented programs that demonstrate the value of nature-based solutions. The passage of the bill will move our state with the speed and scale that is needed for future generations.

Stephen Hall, Principal, Chandler LLC

The testifier believes the bill's statement of purpose is clear and definitive, and that all residents need to be conscious that we are in a climate emergency. They note that Europe and New York are employed in major building renovations with improved heat pump systems by retrofitting existing buildings to achieve decarbonization. They believe that returning to and not eliminating fossil fuels and nuclear is unnecessary and bad for the environment.

Kipen Kolesinskas, Co-Chair, Working Lands Alliance

Noting the many positive components to this legislation, the testifier concentrates on supporting section 22 and ask to add the changes as stated:

Section 22, lines 449-455: Add the phrase "and storage" after carbon sequestration, add farmland to the areas being preserved, and focusing on food security and water management.

Section 22, lines 456-470: add numerous water and flood zones to the list of areas, and added agricultural landscapes to the habitats to be preserved.

Melissa Kops, BuildGreen CT

The testifier believes heat pump adoption is an important step for decarbonization and reduction of air pollution. They believe the target completion of 2030 and public process for the development of a plan is important and a robust plan. They state that schools should be constructed as zero energy like the one in Manchester that was completed in 2022. They believe Connecticut can't afford not to retrofit our aging educational building stock.

Shannon Laun, Vice President, Conservation Law Foundation

The testifier believes that Connecticut residents want climate action that improves our air quality, our health, creates clean jobs, address environmental injustices, and has a pathway to a clean energy future. They believe that passing this bill accomplishes these objectives, making Connecticut a cleaner, healthier place for current residents and future generations.

MaryEllen Mateleska, Senior Director of Education, Mystic Aquarium

The Director notes that over the past century the state has warmed by two to three degrees and the northeastern United States is witnessing earlier springs and increased precipitation, with hotter drier summers. They believe an updated Global Warming Solutions Act is urgently needed to protect the states future.

Kimberly Stoner, Director of Advocacy, Northeast Organic Farming Association

The Association believes farmers are on the front lines of climate change; their livelihoods depend on managing unpredictable weather – more extreme drought, floods, heat and polar vortex cold, unseasonable warmth in winter combined with cold snaps that kills crops. They note that the bill sets targets for reducing greenhouse gas emissions by implementing a diverse set of approaches to energy efficiency. They also note how section 10 of the bill could

potentially waive business fees for farms that are environmentally sustainable, and though not defined, they believe organic farms should certainly qualify.

Julianna McVeigh

The testifier states how after an exceptionally heavy rain event there would be mud in the street and the smell of water in their basement. It took 10 years to sell their home, which was in the flood zone, and they moved to a different town. They state how you can still drive around their old neighborhood and see empty lots where homes have been demolished due to repeated flood damages. The community came together and demanded change and adopted vegetated buffers. They believe these nature-based solutions work effectively and decrease flooding.

They include the following recommendations to amend the language:

Section 6: To include a temporary moratorium on new natural gas infrastructure in Connecticut during the duration of the study by PURA to phase out natural gas.

Section 9: To define “sustainable farming operations” in the statute to make clear what steps are necessary to qualify for preferential applications.

Section 11: To codify the Connecticut Clean Economy Council into statute, as it has already been established by EO 21-3.

- To include provisions that enforce Public Act 23-6, the Green Jobs Corps, through the addition of benchmarks for completion of the green workforce development plan.
- To require the workforce development plan to clearly create and publicize a green career roadmap including clearly defined pathways (career ladders), define what the industry needs, transparency on what training is needed and how to get there and a plan to market jobs to underrepresented groups.
- To require the development of relevant certificate programs that correlate to defined industry needs and simultaneously earn credits towards an associate degree.
- To include a provision requiring compliance with the Connecticut Freedom of Information Act regarding publicly posting meeting agendas and minutes

Denise Savageau, President, Connecticut Association of Conservation Districts

Having served on two of the Governor’s Council on Climate Change, the testifier states they can see how this bill builds on the recommendations of those councils. They note how sections 18 and 22 promote sustainability, resiliency, and nature-based solutions, expressing the belief that these two sections elevate the recognition of adaptation and resilience as essential to addressing climate change challenges. They believe our soil resources are interconnected and relate to nature-based solutions, so it is important that we promote soil that is healthy and will allow for water filtration, infiltration, flood control and drought resilience, and functioning septic systems.

Anne Schmidt, Climate/Environment Specialist, League of Woman Voters

As a statewide nonpartisan organization, the testifier believes we must protect our planet by creating a bill that includes incentives for businesses and job creation is good for Connecticut and the planet.

Peter Schweinfurth, Greenwich Energy Advisory Commission

The testifier supports that the bill advances the goal of reducing greenhouse gas emissions, invests in renewable energy with startup businesses, and supports local sustainable purchasing by leveraging nature-based solutions. They believe we need to encourage schools to include renewable energy, as that will increase the energy resilience and lower operating costs. They suggest that by updating product efficiency standards consumers can get the most efficient commercial products. They express the belief that heat pumps are the most efficient way to heat and cool a building and would greatly reduce our greenhouse gas emissions.

James Shirvell, Workforce Development

The testifier believes there is immense potential for transitioning towards renewal energy sources. They note how sections 9-12 encourages sustainable businesses and workforce development, as well as how sections 13-17 incentivize the deployment of clean energy technologies. They also note how section 22 seeks to sequester carbon and protect our coasts from Storm impacts through preservation and restoration.

Irene Skrybaio

The testifier states that every year we lose valuable land to development pesticide and fertilizer runoff. They feel there seems to be no end to the rising seas and each year they see more damage to the shoreline. Fishermen tell them that their season has been decimated due to the warming waters; requiring the use of nature-based buffers, healthy soils and land conservation is necessary as spelled out in section 22.

Natalie Treat, Director of Public Policy, Northeast Clean Energy Council

The testifier believes Connecticut will be a safer and healthier place by taking the challenges posed by the climate crisis and setting bold decarbonization commitments. They note that creating pathways for public and private sectors to achieve net-zero goals are necessary.

Mike Turaj, Policy & Public Affairs Associate, Operation Fuel

Operation Fuel launched its Better Homes and Building Program in 2022 to address home weatherizing, heat pump installation and barriers in low and moderate-income households across Connecticut. Through grants from the EPA and Healthy Communities they have been able to weatherize 8 homes and install 20 heat pumps. Deployment of heat pups provides beneficial energy and health improvements but will require a sizable investment. They believe HB-5438 in the Energy and Technology Committee would help in investing in cost-effective healthier weatherization programs for residents.

Jayson Velazquez, Climate & Energy Justice Policy Associate, Acadia Center

Arcadia Center supports robust priorities to ensure a climate and clean energy future. Directing PURA to initiate investigation into the future of local gas distribution company operations provides an opportunity to explore a managed transition away from gas towards decarbonization through electrification in a well-thought-out process following science and data. They suggest updating section 17 and including a heat pump deployment target date of January 1, 2030.

Louise Washer, Executive Board, Pollinator Pathway

The testifier believes climate change is one of the key factors of the negative effects on pollinators and other wildlife. They state section 22 elevates the importance of nature-based

solutions including land conservation, riparian buffers, healthy solid and wetlands. They believe use of nature-based solutions presents an opportunity to address the crisis of climate change and biodiversity loss. The group work with municipal and community members to plant native plants along waterways and avoid pesticides to support healthy soils, clean water and a restoration of native wildlife habitat. They believe this bill is essential for safeguarding our environment, public health, and economy for future generations.

Kenneth Wolslegel, Earth 2024

As a concerned resident of Woodstock, the testifier regrets that the ice during winter is no longer safe to walk on. They note how climate change is costing the global economy an estimated \$1B to \$2B a year. The US Department of Defense recognizes climate change as a national security risk; they believe our economy, national security, food security and public health are all at risk. They especially support section 22, which presents a critical opportunity to address the interrelated crisis of climate change and biodiversity loss.

Over 290 individuals also submitted testimony in support of the bill.

NATURE AND SOURCES OF OPPOSITION:

Chris Herb, President, Connecticut Energy Marketers Association

Representing over 600 local family-owned energy marketers who sell Bioheat and install more heat pumps than any other organization, the Association oppose the language in section 17. They believe it is like the plan that was adopted eleven years ago which sought to convert 300,000 homes to natural gas. They believe the state was wrong then and it is wrong now. They believe Bioheat fuel can achieve net zero emissions, is made in Connecticut, and does not require electric ratepayers or taxpayers to pay more to subsidize costs to build a transmission and distribution network.

John Allen, Vice President of Operations, and Catherine Savoia, Marandola Fuel

The testifier believes the bill ignores the better ways to lower emissions besides heat pumps. Their company is transitioning from petroleum-based heating oil to local biodiesel. They believe Bioheat fuel reduces carbon dioxide emissions and can achieve net zero emissions when combined with other technologies. They state their industry brings many advantages to the energy mix. **Dawn Dean** also submitted testimony.

Leslie Anderson, Propane Gas Association of New England

The testifiers concern is that the bill ignores low carbon liquid fuels; they believe propane should be promoted by the state because it reduces greenhouse emissions. They also state that propane is cleaner than electricity and will continue to stay cleaner as renewable blends are added. They suggest amending the bill to incentivize clean liquid fuels and consider how propane can complement the state's renewable energy portfolio.

Michael Brown, Owner, Casey Energy

As a third-generation owner the testifier suggests the benefactors of this bill have been the monopoly run power and natural gas companies. They state their industry has been instrumental in developing low emission biofuel, renewable propane, and highly efficient equipment to heat homes. Their proposed solutions will eliminate the expense of the massive chore of upgrading the grid.

Stephanie Loizzo, Susan Lovallo, and Melissa Lukas, Casey Energy

The testifier believes the bill ignores other ways to lower emissions other than heat pumps. They state that Casey Energy provides renewable Bioheat fuel and propane, and that their industry is local, available 24 hours a day, reliable 100% of the time, and does not require an expensive up-front cost of installing new equipment to lower emissions.

John Daniels, Daniels Energy and Daniels Propane

The testifier explains that renewable propane is created during renewable biodiesel refining, but states that MIT has found a method to create renewable propane from recycled plastic bottles. They state the bill requires the installation of heat pumps but ignores the cost to install and operate these heat pumps. They believe that if passed, the bill will lack the inclusion of other low carbon options such as Bioheat and renewable propane that are low carbon fuels made from renewable sources.

Jamie Densmore, Owner, Densmore Oil

The testifier's major concern with this bill is the requirement of over 310,000 heat pump installations. They state that their company installs heat pumps, and these are expensive to install, inefficient in colder weather, and running many would place a demand on the electric grid. They suggest that language which facilitates other low carbon fuels should be included in this bill.

David Flemming, Policy Director, Yankee Institute

The testifier states that global experts agree that climate change is a problem but not the "crisis" that this bill contends. They believe there is an antidemocratic government overreaction to climate change. Their research shows that over 75% of respondents are against Connecticut's Department of Environmental Protection's proposed ban of the sale of new gas-powered cars. They believe that if passed, section 4 of the bill invites organizations across the U.S. to sue the state. They believe the bill will make climate change the state's primary focus and will sacrifice lower income residents to the new carbon-free world.

David Gable, Owner, Hocon Gas

Their business operates 6 facilities throughout the state and are concerned with elevated emissions and rising sea levels but see no value in this bill. They state the electric grid was built generations ago and is terribly inefficient. It is their belief that placing so much of our energy needs from one source is not a good solution for reliability and a better plan would be diversification of supply.

Michael Giaimo, Regional Director, American Petroleum Institute

The testifier believes continued efforts to increase electrification without proportional investments in the electrical grid could cause reliability concerns. They believe building new and efficient gas-fired power plants provides a pivotal solution to maintaining grid reliability. They suggest that policies that impose blanket GHG emission limits risk suppressing economic development and limit unrealized environmental benefits.

Matthew Mitchell, President, Norbert E. Mitchell Co.

Their industry is transitioning from petroleum-based heating oil to locally produced biodiesel that comes from used cooking oil, plant oils and animal fats. They believe Bioheat reduces carbon dioxide emissions by 80% and can achieve net zero emissions when combined with other technologies. They suggest their industry brings many advantages to the energy mix

including reduce reliance on the electric system, provide increased energy security and lower emissions that do not require expensive capital investments.

Peter Russell, Owner, Santa Energy

The testifier installs heat pumps, but this is not the only way to reduce emissions. They state that petroleum-based heating oil which is locally produced from cooking oil, plant oils, and animal fats known as Bioheat, when combined with other technologies reduces carbon dioxide emissions. Their testimony gives the advantages their industry brings to the energy mix.

Paula Ryan, Ryan Oil Company

The testifier expresses concerns about emissions which they believe should be concentrated on the products that are looked at first. They believe the bill will ask customers to add a heat pump to their homes and maintain the heating system they currently have, which will put too much strain on the existing electrical supply.

Christine Sinopoli

The testifier believes the bill calls for restructuring of the state's energy generation. They believe that if passed, energy costs will for consumers will rise, making it astronomically expensive to heat and cool their homes. They suggest the underlying assumption of climate science is flawed and based on a lack of science and clear understanding of global temperature change. They believe there are many different factors that affect global temperatures that are being overlooked.

The following submitted testimony opposing the bill:

Kathryn Chester, Marguerite Christie, Ann Clancy, Deborah Cunningham, Linda Dalessio, Roy Downey, Gary Gile, Edward Maccio, Cheryl Marceau, Virginia Maxwell, John Passarelli, Kathleen Presscott, Michael Rapetski, Michael Santangelo, Patricia Santangelo, Benjamin, Shettle, Anonymous, Anonymous-Ledyard High School, William Cummings, James DeAndressi, Leslie Deming, Tucker Deming, Dires Getaschew, Jason Gottier, Dani Harrington, Stacey Innamorato, Robert Keen, Mickey LaCrosse, Meredith Obreiter, Pamela Pascale, Elizabeth Quattrochi, Jeff Reichle, Kim Riordan, Alexander Ritter, Gary Sippin, Laura Skutch, Elana Billing, Stephen Quinlan.

GENERAL COMMENTS:

Betsy Gara, Executive Director, Connecticut Water Works Association

Connecticut's water companies state their commitment to addressing the need for greater resiliency and high quality drinking water that is safe and reliable. They upgrade systems to comply with state and federal requirements including:

- 1) Identifying and replacing lead service lines,
- 2) Testing and treating public water supplies of contaminants and
- 3) Modifying dams and distribution systems.

They state how they are in the process of moving forward with plans to upgrade and retrofit dams for stream flow releases. DEEP should not be given wide latitude to the stream flow

regulations. This would undermine the efforts already underway. CWWA respectfully requests that this reference be deleted.

Peter Myers, Public Policy Associate, CBIA

CBIA appreciates the bill, and provide the following comments:

Section 4: This is the section that give them the most pressing concerns. They believe that because of the vagueness of this section, and the concern for all business, they request that the section be removed completely.

Section 6: Rather than a PURA as included in this section, CBIA suggests a study on the topic of energy generators, electrical distribution companies, natural gas suppliers and small business and the impact of eliminating naturel gas from our state.

Section 9: They believe that giving tax credits for business that invest in environmentally sustainable business is not what businesses need as they do not have the available capital to make their businesses more sustainable. They are supporting the legislation in the Energy and Technology Committee that reduce the barriers to capital through CPACE loans.

Section 10: They suggest reducing business fees for all that make sustainable investments as an additional incentive.

Section 12: They support utilizing unused state buildings to help grow our economy and attract start-up businesses.

Section 14: The business community supports increasing the amount of battery storage and improving grid resiliency; they would like the committee to be cautious of increasing these incentives, as they are being paid for by the ratepayers of our state.

Stephen Sack, Owner, Sack Energy Corporation

As the distributor of traditional heating oil and renewable liquid fuels for over 10 years, the testifier has expertise with Biodiesel and Renewable Diesel. They have included the following comments:

Section 1: They believe the term “climate crisis” should be changed to “climate change” because it better reflects the situation. They feel that if this is called a “Climate Crisis” it can trigger other unintended consequences and take control away from the General Assemble.

Section 2 & 3: They have concerns that this can be done with buying Clean Energy Credits. They believe this should be done on its own without the purchase of any credits. They believe “Net-zero” is a shell game when credits are used to offset.

Section 11: The testifier believes the forming of a “Connecticut Clean Economy Council” should include Connecticut residences that are actively engaged in the respective fields. They state there should be someone from ISO NE, Eversource, automotive, energy efficiency, power generation and liquid energy business in Connecticut. They believe this will give better information to the group to come up with workable ways to develop a clean economy that is workable to meet the environmental goals with diversity not just one pathway.

Section 17: The testifier believes the plan has not addressed the electrical generation and grid system. The IOS report outlines that our electrical grid needs to be updated and have more sources of clean energy production. They believe this needs to be done in the entirety of New England. They note the bill is missing options to reduce emissions by changing all its

fleet of cars to electric or hybrid and using only renewable fuel transit busses. They believe DOT trucks can run on Biofuels and be cost effective.

Lindsey Seti, Advocacy Manager, Connecticut Conference of Municipalities

CCM supports section 15 for increasing the grant size for school buildings but has some concerns with section 18 requiring any municipal POCD adopted on or after July 1, 2024 evaluate environmental sustainability and climate resiliency. They note that municipalities spend money every ten years to review and revise their POCD's; they find it would be a financial burden on those municipalities who do not have the staff to complete revisions in-house. Therefore, they believe towns and cities should be able to maintain their current schedules of amending and adopting POCD.

When it comes to environmental sustainability, CCM would like more clarification on the word "evaluate". The cost impact on municipalities will depend on the expectation this bill imposes. sections 19 and 20 proposals are appreciated and that municipalities may apply for expense reimbursement from OPM.

Reported by: Pamela Bianca

Date: April 5th, 2024