



Public Hearing – March 10, 2023  
Environment Committee

Testimony Submitted by Commissioner Katie S. Dykes

**Senate Bill No. [1145](#) – An Act Concerning the Establishment of Sector Specific Subtargets for Greenhouse Gas Emissions Reductions and Regulating of Small Off-Road Engines**

Thank you for the opportunity to present testimony regarding Senate Bill No. 1145 – An Act Concerning the Establishment of Sector Specific Subtargets for Greenhouse Gas Emissions Reductions and Regulating Emissions of Small Off-Road Engines. The purpose of this bill is to strengthen Connecticut’s Global Warming Solutions Act to give the state the tools necessary to meet its greenhouse gas targets. As currently written, the bill proposes to do the following:

1. Sections 1-4 introduce and define negative emissions for reporting and policymaking purposes; establish a goal of economy-wide net zero greenhouse gas (GHG) emissions by 2050, while maintaining the current goal of an 80% reduction from 2001 levels by 2050; mandate DEEP to publish sector-specific sub-targets; expand and clarify the definitions of “direct” and “indirect” emissions to allow DEEP to address a wider range of GHG sources; and provide DEEP with the authority to adopt regulations to reduce indirect and direct emissions of greenhouse gases.
2. Section 5 requires the evaluation of alternatives for fossil fuel electricity generation units applying for or renewing air quality permits;
3. Section 6 requires municipal utilities to report on an annual basis their progress in reducing GHG emissions;
4. Section 7 codifies alignment between the Connecticut Green Bank’s financing programs and Connecticut’s GHG targets; and
5. Sections 8-10 attempts to encourage the electrification of small off-road engines.

The Department of Energy and Environmental Protection (DEEP) appreciates the Committee raising this proposal at the agency’s request and **supports** this bill, with recommended edits to the small off-road engine provisions. Overall, DEEP believes this bill is necessary for Connecticut because we are not on track to meet our 2030 and 2050 emission reduction targets and our 2050 emissions target is no longer in line with current scientific recommendations.

In 2021 and 2022, the Intergovernmental Panel on Climate Change (IPCC) released a series of papers as part of its sixth assessment report concerning the global physical and economic impacts of climate change. It found that in order to limit global warming to 1.5-2.0° C by the end of the century, immediate and dramatic cuts must be made to greenhouse gas (GHG) emissions, and

worldwide carbon dioxide (CO<sub>2</sub>) emission reductions must be accelerated.<sup>1</sup> In response to these findings, in April 2021, President Biden rejoined the United Nations' Paris Agreement and adopted a 2050 net-zero, economy-wide GHG emission target for the U.S.<sup>2</sup> Fourteen states have also established net zero or carbon neutral targets, including neighboring states such as Massachusetts, New York, Rhode Island, Maine, and Vermont.<sup>3</sup>

In contrast, Connecticut's 2050 emissions target is currently set at an 80% reduction from 2001 levels (C.G.A. § 22a-200a). This target is not aligned with achieving nationwide, or global, net-zero emissions by the middle of the century and ignores the significant, potential benefits of negative emissions.

Negative emission practices and technologies include but are not limited to reforestation and management, wetland management, soil management, and direct air capture. These techniques not only provide climate change mitigation benefits but can also support critical ecosystem services such as air pollution reduction, biodiversity protection, and water filtration. Often referred to as carbon capture and storage, these approaches – both bio-based and technology-based – are critical components in most IPCC pathways that keep global warming to below 1.5° C.<sup>4</sup> Incorporating negative emissions into Connecticut's Global Warming Solutions Act while also adding a net zero emissions target for 2050 will realign Connecticut with the latest science and will support Connecticut's ability to identify the most cost-effective path to a decarbonized economy. Natural and working lands provide tremendous negative emissions benefits to Connecticut as our climate changes. Numerous scientific reports through various models have documented carbon and other greenhouse gas pollutants sequestered or absorbed and stored underground in soil, roots, and above ground in tree trunks and branches.<sup>5</sup> Avoiding the deforestation or development of natural and working lands is the most effective means of maintaining and enhancing the “negative emission” benefits of this landscape type.

To further support affordable and timely decarbonization, requiring the development of sector-specific sub-targets and providing regulatory authority on direct and indirect emissions would improve market certainty and mitigate noncompliance risks. Under the current, limited regulatory authority, we know Connecticut is not on track to achieve our GHG emission targets for 2030 and 2050. And even with the once-in-a-generation investments of the federal Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act (IRA), studies estimate only a 30-45% nationwide reduction in emissions below 2005 levels by 2030.<sup>6</sup> This reduction is not aligned with President Biden's goal of a 50-52% reduction by 2030 from 2005 levels, nor is it likely sufficient to meet Connecticut's 2030 goal of a 45% reduction from 2001

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<sup>1</sup> <https://www.ipcc.ch/sr15/chapter/spm/>

<sup>2</sup> <https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/22/fact-sheet-president-biden-sets-2030-greenhouse-gas-pollution-reduction-target-aimed-at-creating-good-paying-union-jobs-and-securing-u-s-leadership-on-clean-energy-technologies/>

<sup>3</sup> <https://static1.squarespace.com/static/5a4cfbfe18b27d4da21c9361/t/6321f6519adb5028800a2b9e/1663170130030/USCA+2022+Fact+Sheet.pdf>

<sup>4</sup> <https://www.catf.us/2022/04/what-does-latest-ipcc-report-say-about-carbon-capture/>

<sup>5</sup> <https://www.nature.org/content/dam/tnc/nature/en/photos/Avoided-Deforestation-Report-NE-NY.pdf>  
<https://www.fs.usda.gov/managing-land/sc/carbon>

<sup>6</sup> <https://crsreports.congress.gov/product/pdf/R/R47385>

levels by 2030. Additional programs, incentives, and policies beyond IJJA and IRA will be needed in Connecticut to meet our 2030 and 2050 targets.

Developing detailed sector-specific sub-targets would help the state to identify the most cost-effective opportunities for emissions reductions and to map out a clear trajectory for Connecticut's most critical sectors. This approach has been successfully implemented in Massachusetts, where a 2021 law required the state to adopt sector-based GHG emissions limits. Through this effort, Massachusetts has established a roadmap for decarbonization that provides industries with clear timelines for reducing their emissions based on the availability and cost-effectiveness of carbon-reducing technologies. The roadmap also helps minimize the ability of sectors with readily available cost-effective decarbonization options to wait to take action. The proposed amendments to Senate Bill 1145 would adopt a similar approach for Connecticut.

Specific changes to existing programs and policies in Connecticut are also incorporated into the bill. These changes include requiring the evaluation of non-emitting energy or energy storage options when reviewing an existing or new fossil-fueled electricity generating permit application, requiring alignment of Connecticut Green Bank financing programs with Connecticut's GHG reduction targets, and requiring the reporting of GHG reductions achieved by municipal utilities. These requirements would help ensure that all utilities are tracking their GHG emission impacts, that state financing continues to be deployed in ways that support compliance with Connecticut's Global Warming Solutions Act, and that carbon-reducing alternatives are actively considered by electricity generators.

The most efficient way to meet the GHG reduction targets of C.G.A. section 22a-200a from the electric generation sector is to consider the GHG emissions impacts of new projects before they are constructed. Designing a project for minimum GHG emissions at the outset is more cost effective than retrofitting projects as the statutory GHG reduction target deadlines approach. For this reason, DEEP believes that requiring the consideration of non-emitting alternatives during the review of electricity generation permits would, over time, encourage greater decarbonization among in-state electricity generators. The air permit review is a pre-construction review program and would enable the Department and the permit applicant to engage in a thoughtful, site-specific evaluation of the technologically and economically feasible alternatives to fossil fuel electricity generation in efforts to reduce greenhouse gas (GHG) emissions. As such, this requirement will provide the Commissioner with a timely tool to meet Connecticut's GHG reduction targets.

Lastly, we applaud the Committee's efforts to address small off-road engine emissions which can be a source of GHG and smog-forming pollutants. However, Senate Bill 1145, as written, would require DEEP to adopt California's small off-road engine emission regulations and would create a zero emissions small off-road engine account to provide rebates for the electrification of equipment such as lawn mowers, trimmers, leaf blowers, portable generators and pressure washers. While small off-road engines do produce criteria pollutants and GHG emissions, an amendment to the federal [Clean Air Act section 209\(e\)](#) inserted in an agriculture appropriations bill in 2004 pre-empts states, other than CA, from regulating small engines of 50 horsepower or less. For these reasons, DEEP recommends removing the requirement for the adoption of California's small off-road engine emission regulations in section 8 of the proposed bill. In terms

of the rebate account outlined in sections 9 and 10 of the bill, it is unclear where the \$10 million in funding would be coming from to fund the zero-emissions for small off-road engine account.

We welcome the opportunity to work with the committee to address the specific aspects of the bill noted above.

Thank you for the opportunity to present testimony on this proposal. Should you have any questions, please do not hesitate to contact Harrison Nantz at [Harrison.Nantz@ct.gov](mailto:Harrison.Nantz@ct.gov).