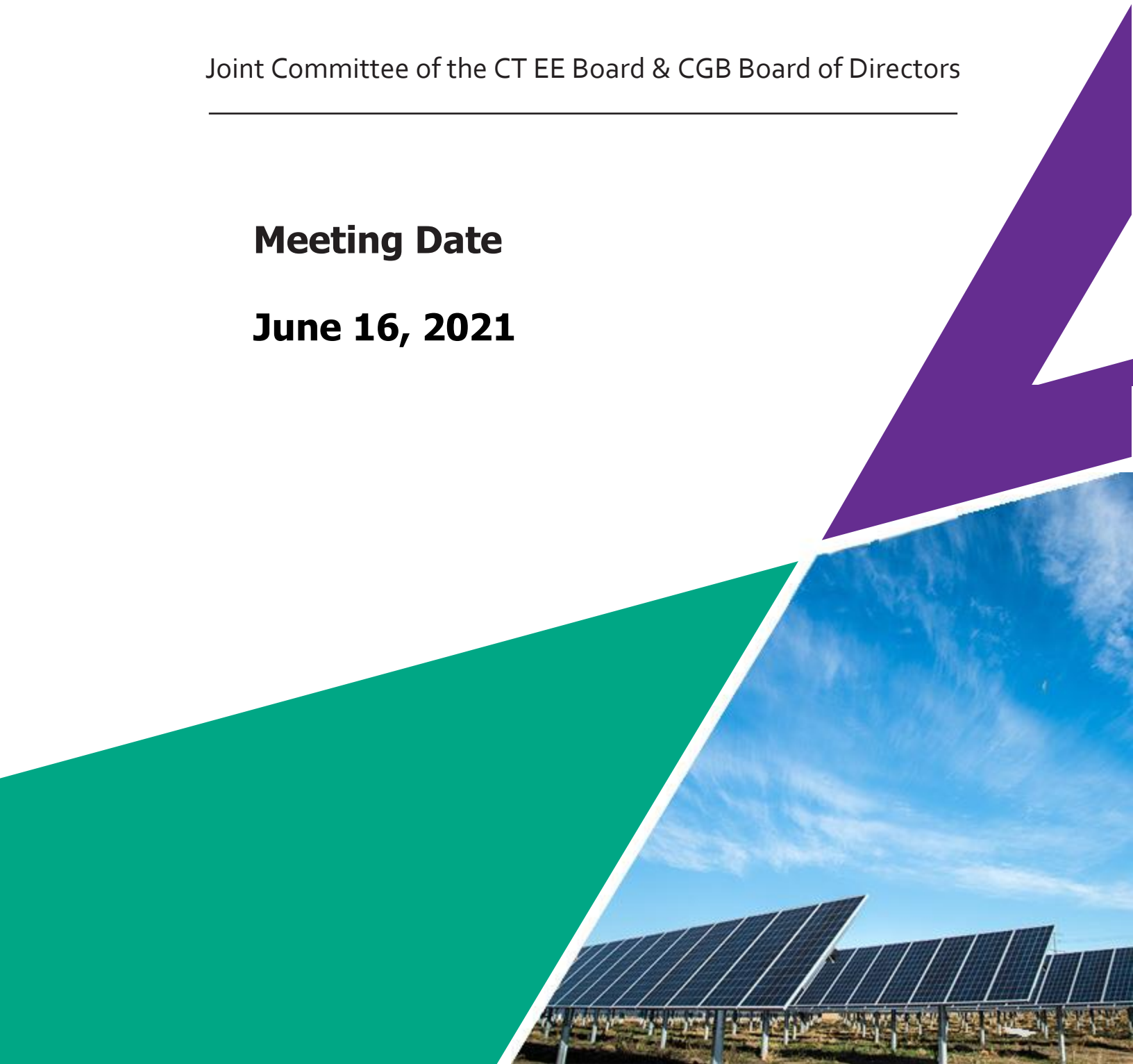




Joint Committee of the CT EE Board & CGB Board of Directors

Meeting Date

June 16, 2021



JOINT CGB/EEB COMMITTEE MEMBERS

Eric Brown

Chair
CT Business & Industry Association

Michael Li

CT Department of Energy and
Environmental Protection (DEEP)

John Harrity

Chair
CT Roundtable on Climate and Jobs

John Viglione

Office of Consumer Counsel

Brenda Watson

Executive Director
Operation Fuel

Bryan Garcia

President and CEO
Connecticut Green Bank

Ronald J. Araujo

Eversource

Bert Hunter

EVP/CIO Finance
Connecticut Green Bank

Jane Lano

United Illuminating



AGENDA

Joint Committee of the CT Energy Efficiency Board and the Connecticut Green Bank Board of Directors

Online

June 16, 2021
1:30 pm – 3:00 pm

1. Call to Order
2. Public Comments (5 min)
3. Review and Approval of Minutes for March 17, 2021 (5 min)
4. Clean Energy Jobs Report – Update (15 min)
5. Update on the 2021 Legislative Session (10 min)
6. C&LM Plan and Green Bank Comprehensive Plan – Reviews and Input (20 min)
 - a. FY22 Green Bank Comprehensive Plan
 - b. CY22 C&LM Plan
7. Other Business (5 min)
8. Adjourn

Join the meeting online at <https://global.gotomeeting.com/join/635569797>

Or dial in using your telephone:
Dial: 1 (786) 535-3211 / Access Code: 635-569-797



RESOLUTIONS

Joint Committee of the CT Energy Efficiency Board and the Connecticut Green Bank Board of Directors

Online

June 16, 2021
1:30 pm – 3:00 pm

1. Call to Order
2. Public Comments (5 min)
3. Review and Approval of Minutes for March 17, 2021 (5 min)

Resolution #1

Motion to approve the meeting minutes of the Joint Committee for March 17, 2021

4. Clean Energy Jobs Report – Update (15 min)
5. Update on the 2021 Legislative Session (10 min)
6. C&LM Plan and Green Bank Comprehensive Plan – Reviews and Input (20 min)
 - a. FY22 Green Bank Comprehensive Plan
 - b. CY22 C&LM Plan
7. Other Business (5 min)
8. Adjourn

Join the meeting online at <https://global.gotomeeting.com/join/635569797>

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Dial: 1 (786) 535-3211 / Access Code: 635-569-797

ANNOUNCEMENTS

- **Mute Microphone** – in order to prevent background noise that disturbs the meeting, if you aren't talking, please mute your microphone or phone.
- **Chat Box** – if you aren't being heard, please use the chat box to raise your hand and ask a question.
- **Recording Meeting** – per Executive Order 7B (i.e., suspension of in-person open meeting requirements), we need to record and post this board meeting.
- **State Your Name** – for those talking, please state your name for the record.



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Joint Committee

Connecticut Energy Efficiency Board and the
Connecticut Green Bank Board of Directors

Online

June 16, 2021



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Agenda Item #1

Call to Order



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Agenda Item #2

Public Comments



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Agenda Item #3

Approval of Meeting Minutes for March 17, 2021

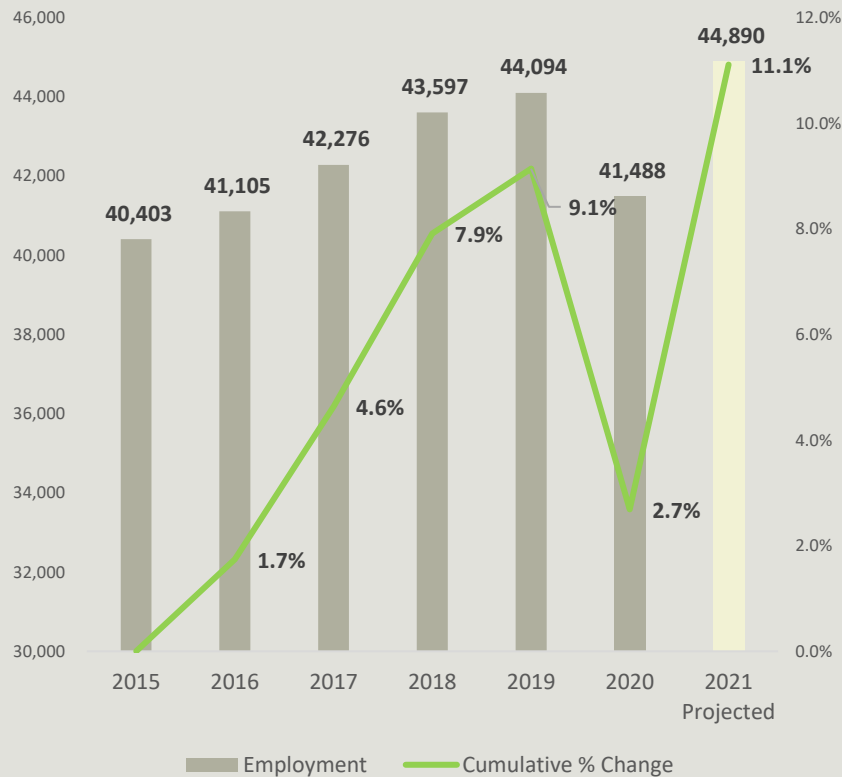


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Agenda Item #4

Clean Energy Jobs Report Update

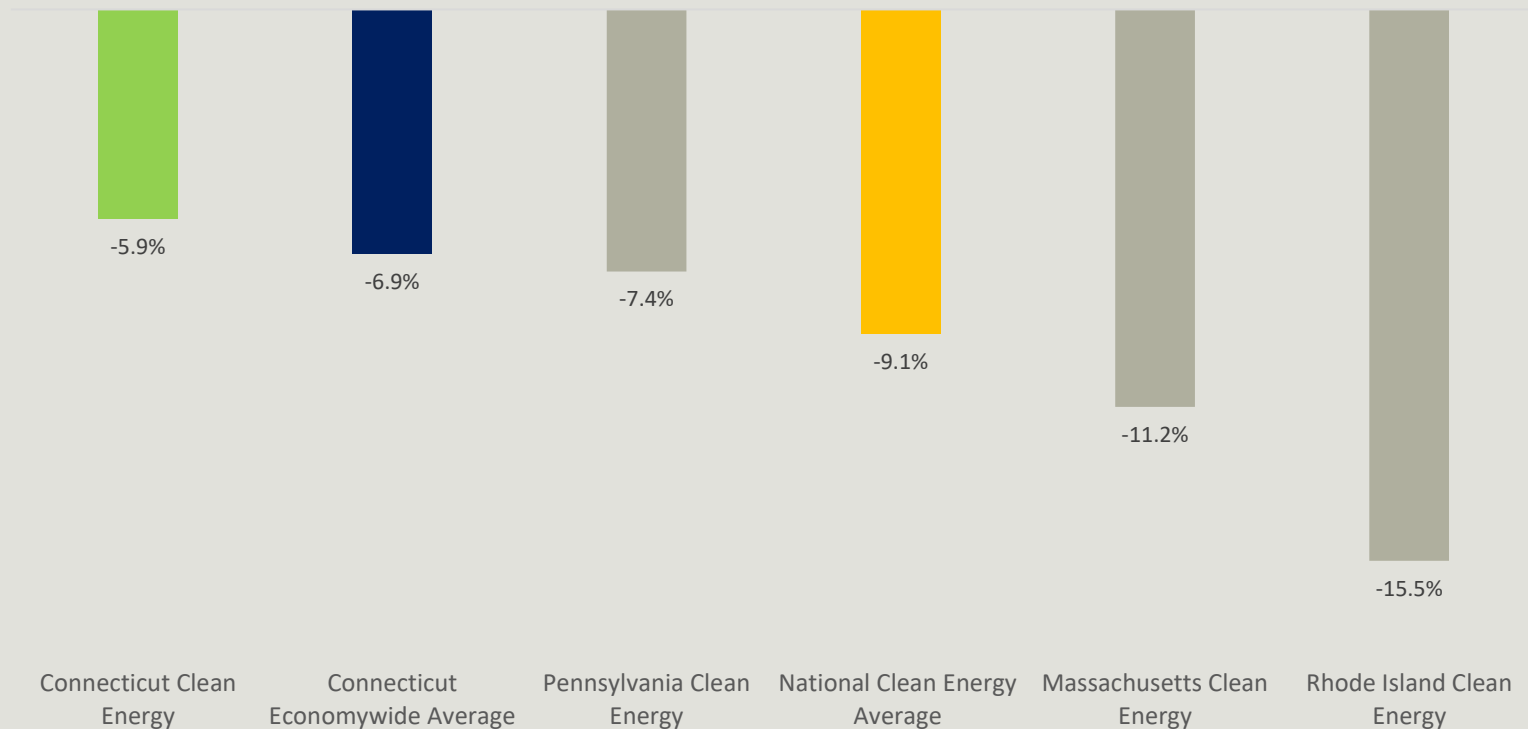
2021 Clean Energy Report Findings



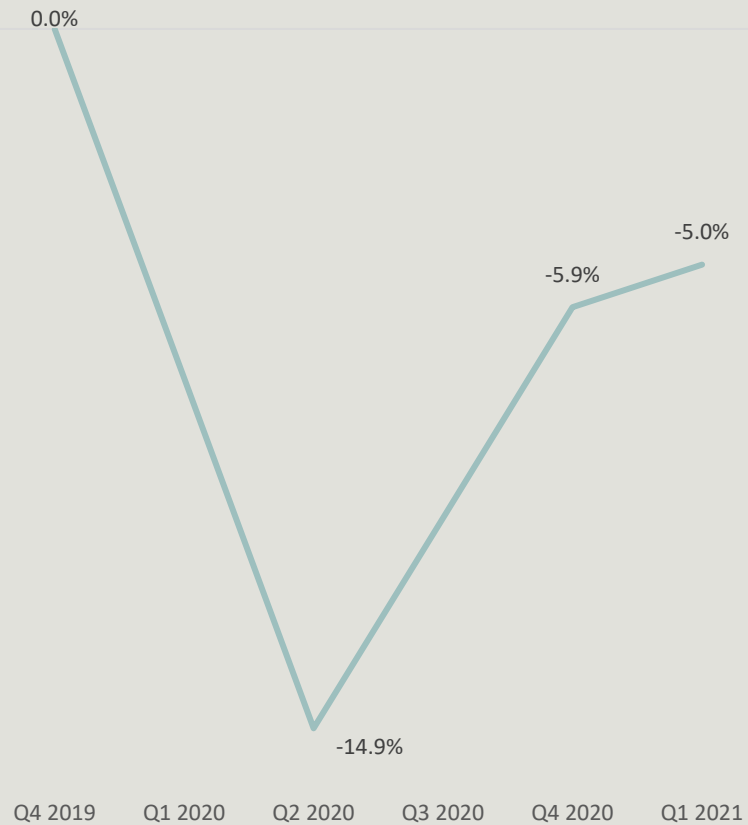
- 6% decline in 2020
- Employers are optimistic, projection 8% growth in 2021
- Alternative transportation grew by 7%
- GRP increased slightly

2021 Clean Energy Report Findings

Connecticut's clean energy industry fared better than the national clean energy labor market and other statewide clean energy economies



COVID-19 Recovery



- Job losses were concentrated in March – May (-14.9%)
- Clean energy economy is in recovery
- Continual growth from June – Dec 2020
- Additional growth in Q1 2021

2021 Clean Energy Report Data & Timeline

- COVID-19 job loss comparisons to other states in Northeast
- Optional analyses – economic impact analysis, career profiles, specific technology focus (renewable heating and cooling, fuel cells, etc.)
- Final Report – June 25th



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Agenda Item #5

Update on the 2021 Legislative Session

2021 Legislative Session Update

- **Energy Efficiency Retrofit Grant Program for Affordable Housing** (PA 21-48) – DEEP establish grant program and includes affordable multifamily dwelling as “residential customer” in tariffs (i.e., CGS 16-244z)
- **Energy Storage** (PA 21-53) – establishes 1,000 MW target by 2030 with PURA establishing programs for BTM and FTM systems
- **Energy Conservation Management Board** (SB 856) – increase by two (2) members (i.e., low income residential and municipality)
- **Environmental Infrastructure** (HB 6441) – expands scope of Green Bank beyond “clean energy” to include “environmental infrastructure”, OPM on the BOD, and expanded reporting to Banking and Environment committees
- **Others** – SB 999 (Just Transition and Community Investment), HB 6106 (Property Tax Exemption for RE), HB 6227 (Class III Expansion), HB 6412 (Low Carbon Fuel Blend of Heating Oil), HB 6524 (Fuel Cells), HB 6526 (Electric Supplier Restrictions and PURA Oversight)



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Agenda Item #6a
Connecticut Green Bank
Comprehensive Plan – Green Bonds US
Reviews and Input

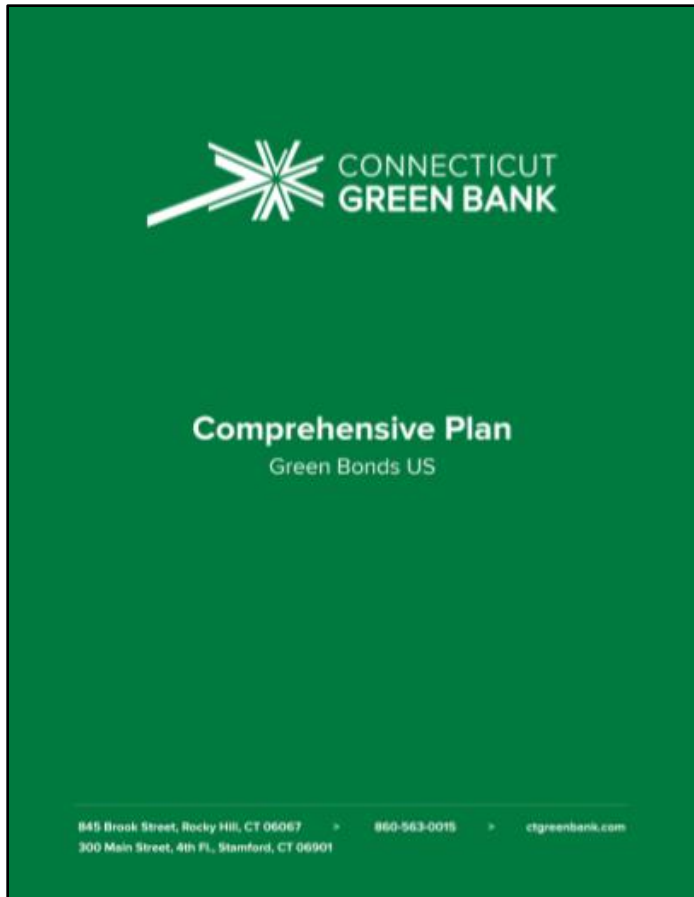
2021 Joint Committee Agenda Items

C&LMP and CGB Planning Cycles

- **March 17, 2021** – input into CGB FY 2022 Comprehensive Plan and input into CY 2022 C&LMP
- **June 16, 2021** – final input into CGB FY 2022 and CY 2022 C&LMP
- **June 16, 2021** – debrief on 2021 legislative session
- **December 15, 2021** – plans for 2022 legislative session and input into CGB FY 2023 Comprehensive Plan (Revisions)

Connecticut Green Bank

Comprehensive Plan – Green Bonds US



- Setting new targets for FY 2022, including phase-out of RSIP, inclusion of battery storage incentive program
- Various “clean ups” throughout (e.g., footnotes, links, numerical updates)
- Program alignment with new legislation (e.g., inclusion of “environmental infrastructure”, new BOD members)
- Inclusion of new impact reporting methodologies for equity (i.e., “vulnerable communities”) and energy burden (i.e., financing programs for solar PV)
- Inclusion of glossary of acronyms

Connecticut Green Bank

FY 2022 Targets (DRAFT)

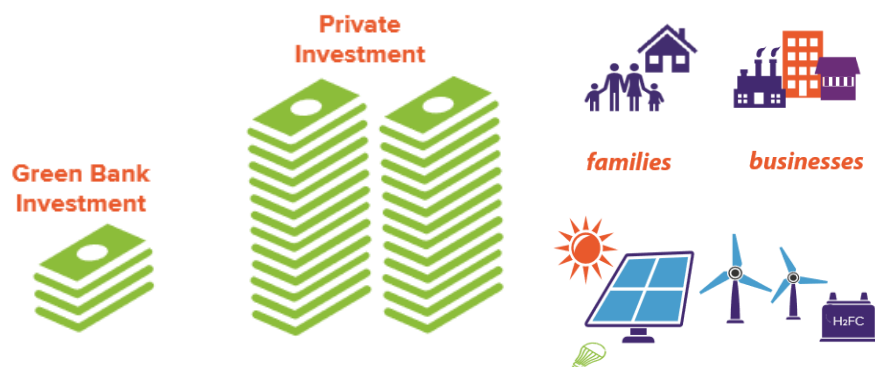


Incentive Programs

Program / Product	Projects	Total Investment (\$MM's)	Installed Capacity (MW)
RSIP	471	\$13.7	4.0
Solar for All	328	\$8.5	2.2
Battery Storage	362	\$11.8	5.0
Smart-E Loan	800	\$11.2	0.8
Total	1,633	\$36.6	9.8

Financing Programs

Products / Projects	Projects	Total Investment (\$MM's)	Installed Capacity (MW)
C-PACE	44	\$23.3	6.5
Green Bank Solar PPA	42	\$25.6	13.4
SBEA	818	\$14.5	-
Multifamily	6	\$1.3	0.2
Transportation	-	-	-
Strategic Investments	-	-	-
Total	902	\$62.0	19.0



Connecticut Green Bank Marketing



■ General Operations

- Strategic shift from product-centric media approach to brand-level media strategy
- Contractor outreach strategy
- Invest in assets (i.e., photos, videos, website) that connects brand to products

■ Products

- Increase in outsourced spend on engineering for Solar MAP
- Support for building owner outreach as product development tool
- New expenses to support LMI outreach (e.g., 40% “vulnerable communities” target)
- Battery storage incentive program(s)



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Agenda Item #6b

Conservation and Loan Management Plan Reviews and Input

“Focus Areas” in 2022-2024 Plan

- Energy Affordability
 - Reducing the energy burden on customers through energy efficiency offerings
- Decarbonization
 - Supporting high efficiency, low-carbon technologies and demand reduction strategies
 - Net-zero energy new construction
- Equity
 - Reaching customers who have not traditionally engaged in EE, including the EE workforce

2019-2021 Plan Priorities

1. Advance State Energy & Environmental Policy Goals
2. Offer Tailored Solutions for Market Segments While Ensuring Equitable Distribution
3. Focus on Direct Savings to Customers
4. Develop and Maintain a Sustainable Workforce
5. Continuous Commitment to Deliver Comprehensive Energy Efficiency Strategies
6. Implement Effective Demand Reduction Strategies
7. Continue to Explore and Implement Financing Options

2022-2024 C&LM Plan Board Schedule

Month	Board Activities
November	Review Draft 2022-2024 Plan Schedule
December	Discuss Three-Year Plan Opportunities and Challenges
January	Develop Questions for Stakeholders and Public Input Sessions
February	C&I Program Discussion
March	Residential and Low income Program Discussion Public Input Session #1
April	Demand Response and Electrification Program Discussion Avoided Energy Supply Cost Study Discussion
May	
June	Review and Discuss PMI Structure, Weights, etc. and Identify Areas for Potential Revision Marketing, Education and Workforce Development Discussion
July	Review and Discuss Initial Draft Plan Text and Revised PMI Structure Review Draft Plan text and PMIs
August	Review and Comment on Initial Revenue, Savings and Budget Projections and PMI Values
September	Vote on Plan Text Review revised revenue, savings and budget projection
October	Vote on Plan Tables
November	Three-Year Plan Filed

“Themes” in 2022-2024 Plan

- Impacts of Residential and C&I lighting transitions
- Workforce development
- Addressing health and safety Wx barriers
- Continued focus on Comprehensiveness/Deeper savings
- Delivered fuel efficiency well integrated into Res. programs, but recent addition to C&I

Electric Revenues (draft)

ES CT Electric/UI EE REVENUES	2021 Eversource CT Electric Revenues 11/01/2021	2021 UI Revenues 11/01/2021	2021 Eversource CT Electric/UI Total 11/1/2021	2022 Eversource CT Electric Revenues 11/01/2021	2022 UI Revenues 11/01/2021	2022 Eversource CT Electric/UI Total 11/1/2021
ISO-NE Forward Capacity Market Revenues	\$ 27,207,761	\$ 5,769,761	\$ 32,977,522	\$ 24,637,290	\$ 4,918,613	\$ 29,555,903
Class III Renewable Energy Credits	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
RGGI*	\$ 10,591,031	\$ 2,647,758	\$ 13,238,789	\$ 13,914,221	\$ 3,478,555	\$ 17,392,776
CAM (Net of Gross Receipts Tax)	\$ 96,098,791	\$ 21,109,835	\$ 117,208,626	\$ 115,617,786	\$ 26,487,209	\$ 142,104,995
Prior Period Over/(Under) Collections	\$ 5,663,346	\$ 510,211	\$ 6,173,557	\$ -	\$ -	\$ -
Prior Period Under/(Over) Budget	\$ 21,680,096	\$ 6,173,825	\$ 27,853,921	\$ -	\$ -	\$ -
Estimated Interest Due to Company/ Other Revenues	\$ -	\$ 754,781	\$ 754,781	\$ -	\$ -	\$ -
Total - EE Revenues	\$ 161,241,025	\$ 36,966,170	\$ 198,207,195	\$ 154,169,297	\$ 34,884,377	\$ 189,053,674

ES CT Electric/UI EE REVENUES	2023 Eversource CT Electric Revenues 11/01/2021	2023 UI Revenues 11/01/2021	2023 Eversource CT Electric/UI Total 11/1/2021	2024 Eversource CT Electric Revenues 11/01/2021	2024 UI Revenues 11/01/2021	2024 Eversource CT Electric/UI Total 11/1/2021
ISO-NE Forward Capacity Market Revenues**	\$ 16,091,200	\$ 3,166,813	\$ 19,258,013	\$ 12,699,130	\$ 2,685,762	\$ 15,384,892
RGGI*	\$ 14,050,435	\$ 3,512,609	\$ 17,563,044	\$ 13,504,570	\$ 3,376,143	\$ 16,880,713
CAM (Net of Gross Receipts Tax)	\$ 115,373,411	\$ 26,190,229	\$ 141,563,640	\$ 115,730,093	\$ 25,898,853	\$ 141,628,946
Total - EE Revenues	\$ 145,515,046	\$ 32,869,651	\$ 178,384,697	\$ 141,933,793	\$ 31,960,758	\$ 173,894,551

*RGGI Budget is based on calculation by the Companies and DEEP.

**The EE FCM Payment Rates are: FCA-10-\$7.03/kW-month, FCA-11-\$5.30/kW-month, FCA-12-\$4.63/kW-month, FCA-13-\$3.80/kW-month, and FCA-14-\$2.01/kW-month.

Natural Gas Revenues (draft)

Natural Gas EE Revenues	<u>2021</u>	<u>2021</u>	<u>2021</u>	<u>2021</u>	<u>2022</u>	<u>2022</u>	<u>2022</u>	<u>2022</u>
	Eversource CT Gas	CNG	SCG	Combined Eversource CT Gas/CNG/SCG Total	Eversource CT Gas	CNG	SCG	Combined Eversource CT Gas/CNG/SCG Total
	Revenues 03/01/2021	Revenues 03/01/2021	Revenues 3/1/2021		Revenues 11/01/2021	Revenues 11/01/2021	Revenues 11/1/2021	

Conservation Adjustment Mechanism	\$ 23,227,356	\$ 13,490,545	\$ 13,350,257	\$ 50,068,158	\$ 23,409,733	\$ 16,322,487	\$ 14,498,605	\$ 54,230,826
Prior Period Over/(Under) Collections	\$ (3,319,814)	\$ (2,210,145)	\$ (1,755,578)	\$ (7,285,537)	\$ -	\$ -	\$ -	\$ -
Prior Period Under/(Over) Budget	\$ 797,645	\$ 5,102,519	\$ 3,188,750	\$ 9,088,914	\$ -	\$ -	\$ -	\$ -
Estimated Interest Due to Company/ Other Revenues	\$ -	\$ 368,376	\$ 309,972	\$ 678,348	\$ -	\$ -	\$ -	\$ -
Total Revenues	\$ 20,705,187	\$ 16,751,296	\$ 15,093,401	\$ 52,549,884	\$ 23,409,733	\$ 16,322,487	\$ 14,498,605	\$ 54,230,826

Natural Gas EE Revenues	<u>2022</u>	<u>2022</u>	<u>2022</u>	<u>2022</u>	<u>2023</u>	<u>2023</u>	<u>2023</u>	<u>2023</u>
	Eversource CT Gas	CNG	SCG	Combined Eversource CT Gas/CNG/SCG Total	Eversource CT Gas	CNG	SCG	Combined Eversource CT Gas/CNG/SCG Total
	Revenues 11/01/2021	Revenues 11/01/2021	Revenues 11/1/2021		Revenues 11/01/2021	Revenues 11/01/2021	Revenues 11/1/2021	

Conservation Adjustment Mechanism	\$ 24,105,077	\$ 16,381,537	\$ 14,692,511	\$ 55,179,125	\$ 24,544,270	\$ 16,450,030	\$ 14,841,752	\$ 55,836,052
Total Revenues	\$ 24,105,077	\$ 16,381,537	\$ 14,692,511	\$ 55,179,125	\$ 24,544,270	\$ 16,450,030	\$ 14,841,752	\$ 55,836,052

All Figures are net of GET. All Companies are decoupled



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Agenda Item #7

Other Business



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Agenda Item #8

Adjourn



Draft MINUTES

Joint Committee of the CT Energy Efficiency Board and the Connecticut Green Bank Board of Directors

Wednesday, March 17, 2021
1:30-3:00 p.m.

Due to COVID-19, all participants joined via the conference call.

In Attendance

Voting Members: Eric Brown, John Harrity, Michael Li, Lonnie Reed, Brenda Watson

Non-Voting Members: Stephen Bruno, Bryan Garcia, Bert Hunter, Donna Wells

Members Absent: John Viglione

Others: Ron Araujo, Giulia Bambara, Joe Buonannata, Kate Donatelli, Mackey Dykes, Richard Faesy, Philip Jordan, Sarah Lehmann, Liz Murphy, Madeline Priest, Glenn Reed, Sam Ross, Lawrence Rush, Cheryl Samuels, Ariel Schneider, Claire Sickinger, Kim Stevenson, Nicholas Zuba

Unnamed Callers:

1. Call to Order

Eric Brown called the meeting to order at 1:33 pm.

2. Public Comments

No public comments.

3. Review and approval of Meeting Minutes from the December 16, 2020 meeting.

Resolution #1

Motion to approve the meeting minutes for December 16, 2020.

Upon a motion made by John Harrity and seconded by Lonnie Reed, the Joint Committee voted to approve Resolution 1. None abstained or opposed. Motion approved unanimously.

4. Clean Energy Jobs Report – Review of Statement of Work

- Bryan Garcia introduced Philip Jordan and Sarah Lehmann from BW Research. Sarah Lehmann reviewed the research timeline and findings. The information was compared to the 2015 data, which cumulated to +3700 jobs in 4 years and represented 2.6% of total jobs in 2019 were in clean energy, which equated to 1.2% of all clean energy jobs in the US.
- Sarah Lehmann explained the findings from the monthly research due to the impacts of COVID-19 on clean energy jobs. Currently the clean energy jobs now is about 8% below the 2019 baseline employment. Philip Jordan noted the data was not from the larger scale data collection but is still generally accurate in its reflection and useful in terms of estimates. For 2021, Sarah Lehmann explained that the draft report should be ready by April 23, 2021 and will be similar in its breakdown as compared to the 2020 Report, but with a review of the impact of COVID-19 and comparison to other states in the northeast US. Philip Jordan explained the reason as to why it may be beneficial to include the additional information.
 - Bryan Garcia asked for more context to the fixed costs in relation to the governmental data and then optional costs related to the original analyses. Philip Jordan explained what the various costs for the different data points are as well as options for how to approach the different data sets.
 - Eric Brown asked if there have been any discussions with the Governors Workforce Council, as they may already have some information about work related to clean energy. Bryan Garcia answered that there has not been any contact with that committee, but assuming it is being monitored by the Dept of Labor, he noted that the Green Bank has been working closely with the Dept of Labor so that there may already been some crossover of information in terms of job profiles. Philip Jordan also noted that the utility companies may be developing their own evaluations as well and discussed some other research possibilities in terms of optional analyses.
 - Richard Faesy asked for clarification if Illume started a workforce evaluation study recently with the EEB. He believes it has a focus on workforce development in Connecticut and wanted to highlight that for a potential coordination opportunity.
 - Lonnie Reed asked if there was a resolution in place for the Tesla-Dealership situation in relation to buying cars online. Eric Brown stated he does not believe it has been resolved yet. Bryan Garcia noted it and said it could be flagged as an element in the workforce study as an example of roadblocks that clean energy jobs may face.
 - Bryan Garcia noted that the current plan will be to continue reviewing data, including the new information discussed today, and aim to be prepared to present the draft at the next Joint Committee in June 2021.
 - John Harrity noted in relation to the round table on the Board of Climate and Jobs, they are pushing to make renewable energy jobs as desirable as possible, and hopes those efforts will help support the Green Bank's political momentum in bringing older energy workers into new clean energy jobs, as the training and shift in mentality can be a deterrent to many. Philip Jordan provided some feedback as to research that has been done in response to the points brought up by John Harrity.
 - Ron Araujo asked for more information relation to specific fields and was answered by Philip Jordan.

5. Plan Coordination

a. Input to FY 2022 Connecticut Green Bank Comprehensive Plan

- Bryan Garcia summarized the progress made at the last Green Bank Board Meeting towards adopting the new vocabulary and establishing new equity targets as well as refinement of FY21 targets and narrative changes. He summarized the move of the Connecticut Green Bank headquarters to Hartford, the BTM tariffs and battery storage development, and recommendation by the Governor to expand the scope of the Connecticut Green Bank from clean energy to include environmental infrastructure.

b. Input to 2022-2024 Conservation and Loan Management Plan Progress

- Glenn Reed gave a summary as to the progress made to the 2019-2021 Plan. Most of the points should remain largely in-tact for the 2022-2024 CL&M Plan.
- Glenn Reed reviewed the initial progress made to the 2022-2024 Plan from November 2020 to March 2021. He reviewed some “likely themes” for the 2022-2024 Plan which are Growth in active demand response, equity, electrification, net-zero energy new construction, impacts of Residential and C&I lighting transitions, workforce development, health & safety barriers, a continued focus on comprehensiveness and deeper savings, and delivered fuel efficiency. None of the themes have been finalized as of yet, however.
- Glenn Reed reviewed the updated slides on Lifetime Electric and Gas Savings from what was presented at the last meeting. He also summarized some possible opportunities for the CL&M Plan and the Green Bank to coordinate together more closely on various programs and focusing on growing the use of financing to support deeper project savings.

6. Update on the 2021 Legislative Session

- Bryan Garcia summarized some of the bills being presented in the current legislative session. John Harrity also noted SB 999 which focused on grid-sized projects paying prevailing wages, as renewable energy projects of certain sizes having community agreements to ensure fair workforce opportunities.
 - Eric Brown asked about SB 6571, how are concerns being addressed in relation to expanding the scope of CPACE at commercial facilities. Mackey Dykes replied that he has not heard of the specific concerns that Eric Brown asked about in relation to possible funding issues. He noted that the Green Bank is not the only CPACE lender and that the CPACE market is growing rapidly even at a national level, so there does not seem to be a concern about a shortage of capital.

7. Other Business

a. Brief Update: C&I – Government

- Stephen Bruno summarized the update to the changes to the Eversource and UI SBEA loans. The maximum loan amounts were both increased, and Eversource now has a maximum loan term of 7 years, and UI now has a max loan term of 5 years. As well, the State/Muni loan program continues to do well.

b. Brief Update: C&I – Small and Medium/Large Business

- Liz Murphy gave the update to the 2021 C&I Program which includes enhancements to the new construction program, a virtual commissioning pilot being launched by UI, SBEA and BEA program changes and continuation of the Microbusiness Energy Advantage program, as well as other new programs and incentives.
 - Mackey Dykes gave a brief update to C-PACE, that the first large-scale project new construction project had closed and pointed out there was more interest in the program recently.
- c. Brief Update: Residential – Single Family and Multi-Family
- Update on Docket No. 20-07-01 (i.e. Residential Solar Tariffs)
- Ron Araujo gave an update to the Small and Multifamily programs, especially highlighting the cost pressures due to a supply shortage as the recent storms in Texas have caused scarcity. He continued with the update to the 2021 HES Incentives which includes a copay increase to \$50 beginning April 1, 2021 and other changes. He reviewed the tiers for the different 2021 ASHP incentives.
 - Stephen Bruno gave an update to the HES Payment Plan/Micro Loan.
 - Joe Buonannata summarized the Smart-E Loan Spring Special Offer which focused on single family energy financing.
 - Ron Araujo summarized the changes to the multifamily building electric heating and cooling system incentives. Kim Stevenson also reviewed the updates to the various partnerships and programs that the Green Bank offers.
 - Bryan Garcia summarized the Docket No. 20-07-01 and key decisions from the Green Bank perspective.
- d. Other Business
- None raised.

8. Adjourn

Upon a motion made by John Harrity and seconded by Brenda Watson, the Joint Committee Meeting adjourned at 3:25 pm.

Respectfully submitted,

Eric Brown, Chairperson

2021 Connecticut Clean Energy Industry Report

PRODUCED FOR

**THE CONNECTICUT GREEN BANK; THE DEPARTMENT OF ENERGY AND
ENVIRONMENTAL PROTECTION; EVERSOURCE; AND, UNITED ILLUMINATING**

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A Message from the Joint Committee

[PLACEHOLDER]

Executive Summary

2021 Highlights



Alternative transportation firms saw employment growth in 2020, led by job growth in the hybrid electric and electric vehicle sub-sectors.



Clean energy employment declines in Connecticut were lower compared to the overall statewide economy, the national clean energy labor market, and other clean energy economies in the Northeast.



The number of firms conducting alternative transportation and clean grid and storage work increased between 2019 and 2020.



Clean energy contributions to statewide GRP increased by two percent between 2019 and 2020 and by 14 percent since 2017.

Key Findings

CLEAN ENERGY LABOR MARKET & ECONOMIC ACTIVITY

Total clean energy employment declined by six percent in 2020. In the last quarter of 2020, clean energy employment totaled to almost 41,500 jobs in Connecticut; this is roughly 2,600 less compared to the last quarter of 2019—a 5.9 percent decline in 12 months. Comparatively, Connecticut’s clean energy market fared better than the overall statewide economy, the national clean energy labor market, and other clean energy economies in the Northeast. Economywide job losses in Connecticut totaled to more than 115,000 jobs, a decline of roughly seven percent; job losses in the clean energy industry accounted for about two percent of total statewide employment declines. Nationally, the clean energy industry declined by 9.1 percent, while clean energy employment in other states like Pennsylvania, Massachusetts, and Rhode Island declined by roughly nine to 16 percent.

Despite losses in 2020, clean energy employers are optimistic about job growth in 2021. Clean energy firms project jobs will grow by just over eight percent, estimating an additional 3,400 clean energy jobs by the end of 2021. In fact, the clean energy economy already began to rebound in late 2020, with the majority of COVID-19-related employment losses concentrated from March through May. From June through December 2020, clean energy jobs saw continuous though modest growth.¹ [to be added – we are running extrapolations on employment growth in Q1 2021 to identify if the growth trend has continued through 2021]

The alternative transportation sector grew in 2020. Despite job losses across all other sectors, employment in the alternative transportation sector grew by almost seven percent between 2019 and 2020, resulting in the creation of almost 130 new jobs spread largely across manufacturing, wholesale trade, and repair and maintenance. Both the hybrid electric and electric vehicle sub-sectors grew by about 14 and 16 percent, respectively. Growth in hybrid electric and electric vehicle employment was seen both nationally and across other statewide clean energy economies.

Clean energy contributions to statewide Gross Regional Product (GRP) increased slightly between 2019 and 2020. In 2020, clean energy firms contributed roughly \$6.64 billion to statewide GRP, accounting for almost three percent of total GRP. Clean energy GRP increased by about two percent from 2019 through 2020 and by 14 percent since 2017. Overall, clean energy professional and business services accounted for about a third of total contributions to GRP, followed by manufacturing at roughly 27 percent and utilities at 21 percent. Construction and wholesale trade accounted for roughly 10 percent each while agriculture and forestry and other services, such as repair and maintenance, represented less than a percent of clean energy GRP contributions.

There were 27,939 full-time equivalent (FTE) clean energy workers at the end of 2020. The number of FTE clean energy jobs² declined by 10.3 percent in 2020, a reduction of just over 3,200 workers that spend all of their labor hours on clean energy-related activities. Compared to 2015, full-time equivalent clean energy jobs were still two percent higher than the baseline.

Solar jobs declined by 6.8 percent in 2020. There were 2,645 total solar jobs in Connecticut by the end of 2020, a net decrease of 193 workers compared to the last quarter of 2019. Compared to the 2011 baseline, solar employment remains 113 percent higher.

¹ For more information on monthly clean energy employment changes through 2020, please visit <https://bwresearch.com/covid/>.

² It is important to note that FTE jobs are not the same as “full-time equivalent” in terms of representing 40 hours of work per week. FTE clean energy jobs are unrelated to how many hours worked but refer solely to the proportion of total hours that are dedicated to clean energy activities, whether the worker be part-time or full-time. In other words, if a clean energy worker works 20 hours per week but dedicates all 20 hours to clean energy-related work, then this worker would be counted as one clean energy FTE.

Energy efficiency employment declined by 6.7 percent, or just over 2,400 jobs. High efficiency and traditional HVAC firms shed the highest number of jobs, with more than 1,300 jobs lost in 2020. ENERGY STAR® and efficient lighting firms shed more than 500 jobs (-6.2 percent) while employment in advanced materials declined by just over 260 jobs (-7.2 percent).

Given these losses in the energy efficiency sector, clean energy construction took the biggest hit in 2020. The construction industry lost almost 1,300 workers, for a decline of 6.4 percent between 2019 and 2020; this was the greatest total decline and percent decline. Professional and business services declined by 6.2 percent (-762 jobs), followed by wholesale trade with just over 300 jobs lost (-6.3 percent). Clean energy manufacturing firms shed jobs at a rate of 4.4 percent (-141 jobs).

CLEAN ENERGY DEMOGRAPHICS

Connecticut's clean energy workforce was slightly more diverse in 2020. The proportion of White clean energy workers decreased by just over one point while the proportion of Hispanic or Latinx and Black or African American workers increased by roughly one percentage point each. In 2019, White clean energy workers accounted for 82 percent of the workforce; this decreased to 80.8 percent in 2020. Hispanic or Latinx workers went from comprising 10.1 percent of the clean energy workforce in 2019 to representing 11.1 percent of clean energy workers in 2020. Similarly, the proportion of Black or African American workers also increased slightly, from 5.8 percent in 2019 to 6.3 percent in 2020.

Union membership and representation in Connecticut grew in 2020. Overall union *membership* across the state increased from 14.5 percent in 2019 to 17.7 percent in 2020, while the proportion of individuals *represented* by unions also increased from 16 percent to 18.4 percent between 2019 and 2020.³ Comparatively, U.S. private-sector unionization remained fairly flat over the same time. National clean energy sector union representation was 9.9 percent in 2020, while union membership sat at nine percent.⁴ **In Connecticut, the clean energy sector's unionization membership and coverage rates for 2020 were X and Y percent, respectively.**

CLEAN ENERGY HIRING & COVID-19 IMPACTS

Few clean energy firms were hiring in 2020, but those who were hiring expressed significant hiring difficulty. About eight in ten clean energy firms (83 percent) indicated that they had adequate clean energy workers to meet their needs. Of the 17 percent that indicated they did

³ "Workers are counted as union *members* if they are a member of a labor union or of an employee association similar to a union. Workers are counted as *covered* by a collective bargaining agreement if they are union members or if they are not members but say they are covered by a union contract." Definitions are from: <http://unionstats.gsu.edu/UnionStats.pdf>.

⁴ Due to a methodology update this year in extrapolating clean energy unionization rates, union membership and coverage are not comparable to last year's report.

not, roughly six in ten (57 percent) were hiring for new positions or vacancies in 2020. Of firms engaged in hiring activity throughout 2020, 92 percent indicated that hiring was difficult; this was eight points higher than the national clean energy average of 84 percent. In Connecticut, 45 percent of firms reported hiring had been very difficult, compared to 37 percent of clean energy firms nationwide.

Of clean energy firms that reported workforce impacts from COVID-19, the majority temporarily laid off their staff. Three in ten surveyed firms indicated that they had to either lay off, furlough, or reduce pay for their clean energy staff in 2020. Of these companies, 55 percent reported that they had to temporarily lay off clean energy employees, 33 percent had to furlough their clean energy workers, eight percent reported a reduction in hours, and four percent indicated reduced pay or benefits for clean energy staff.

Few clean energy firms indicated that they received financial support from emergency funds in 2020. Two-thirds of surveyed clean energy firms reported that they did not receive any emergency funds in 2020, while about a third indicated that they received assistance through a local emergency loan program. Seventeen percent of surveyed clean energy companies reported that they received support through the Paycheck Protection Program (PPP).

Introduction

This report is the second annual report tracking clean energy employment in Connecticut. The 2020 Connecticut Clean Energy Industry Report⁵ provided an important baseline from which to measure clean energy activity in Connecticut’s labor market. This year’s report follows in the aftermath of the global Coronavirus (COVID-19) pandemic and provides detail on how the pandemic-induced economic recession affected clean energy jobs across the state. The Joint Committee commissioned BW Research Partnership to produce this 2021 report, with financial support provided by the Connecticut Green Bank, Eversource, and United Illuminating.

The 2021 Clean Energy Industry Report details historical clean energy employment from 2017 through 2020, using the Connecticut-specific definition of clean energy technologies.⁶ Employment data is described by clean energy technology sector, their component sub-technologies, and industry or value chain segment. Also included in this year’s report is an update to county-level employment, employer hiring difficulty, clean energy firms’ contributions to Gross Regional Product (GRP), clean energy demographics, and some COVID-19 specific questions on workforce impacts and relief programs.

All data presented in this report is based on the 2021 United States Energy and Employment Report (USEER).⁷

⁵ <https://ctgreenbank.com/wp-content/uploads/2020/11/2020-Connecticut-Clean-Energy-Industry-Report.pdf>

⁶ For more information on what constitutes a clean energy job and which clean energy technologies are included in this report, please refer to Appendix B: Clean Energy Technology List.

⁷ <https://www.usenergyjobs.org/>

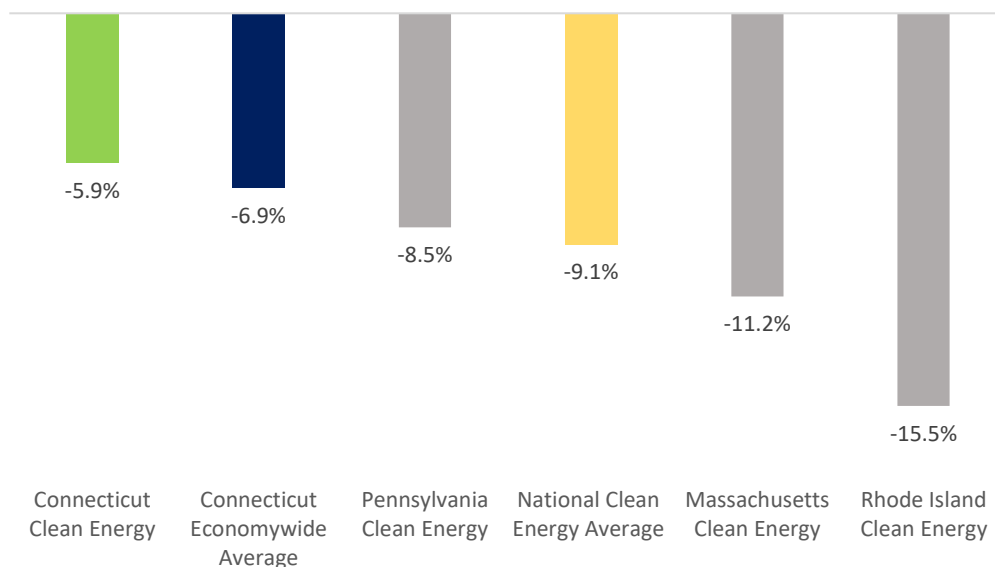
Connecticut Clean Energy Industry Overview

Overall Clean Energy Jobs

In 2020, clean energy employment declined by 5.9 percent, totaling about 41,500 jobs for a decline of just over 2,600 workers in 12 months. The COVID-19 pandemic wiped out nearly four years of clean energy employment growth across the state, sending Connecticut's clean energy labor market back to 2016 employment levels. By comparison, using the latest available data from the Bureau of Labor Statistics Quarterly Census of Employment and Wages (QCEW), the overall statewide labor market in Connecticut contracted by about seven percent, a loss of more than 115,000 jobs. Job losses in the clean energy industry accounted for about two percent of total statewide employment declines.⁸

Connecticut's clean energy industry fared better than the national clean energy labor market, which declined by just over nine percent over the same time, as well as other regions in the Northeast. Clean energy employment in Pennsylvania, Massachusetts, and Rhode Island declined by nine to 16 percent between the last quarters of 2019 and 2020.

FIGURE 1. EMPLOYMENT CHANGE COMPARISONS, 2019-2020

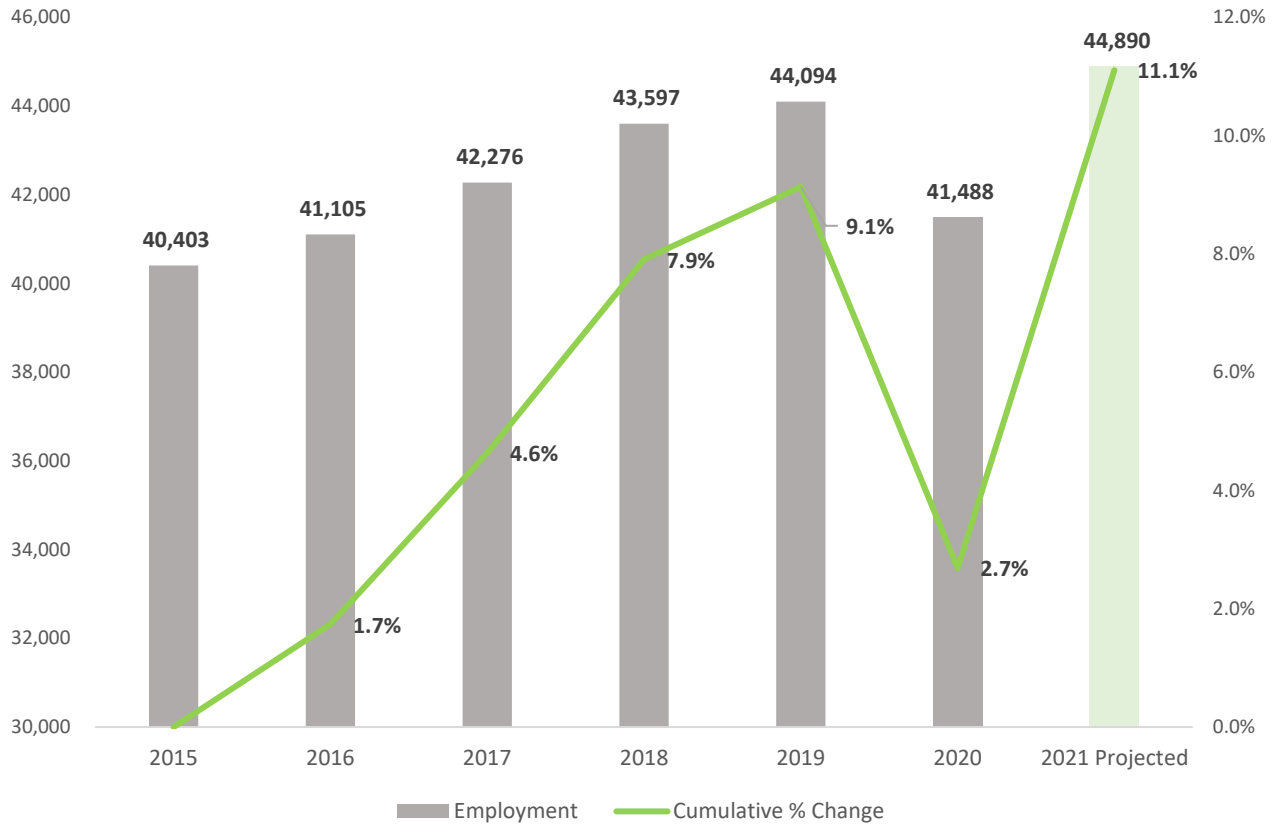


⁸ Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW). Annual 2017-2019 & September 2020. Data accessed April 2021.

Despite employment losses throughout 2020, clean energy employers in the state are optimistic about job growth over 2021. Connecticut’s clean energy industry projected an 8.2 percent employment growth in 2021—estimating the addition of roughly 3,400 clean energy jobs.

Connecticut’s clean energy economy already began to rebound in late 2020, with the majority of COVID-19-related employment losses concentrated from March through May. From June through December 2020, clean energy jobs saw continuous though modest growth.⁹

FIGURE 2. CLEAN ENERGY EMPLOYMENT IN CONNECTICUT, 2015-2021 PROJECTED



⁹ For more information on monthly clean energy employment changes through 2020, please visit <https://bwresearch.com/covid/>.

In 2020, clean energy accounted for \$6.64 billion of Connecticut’s Gross Regional Product (GRP). This represents a 14.2 percent increase since 2017 and a roughly two percent increase between 2019 and 2020.¹⁰ Clean energy professional and business services accounted for roughly a third of total GRP contributions, followed by manufacturing at 27 percent and utilities at 21 percent.

FIGURE 3. CLEAN ENERGY GROSS REGIONAL PRODUCT (GRP), 2017-2020

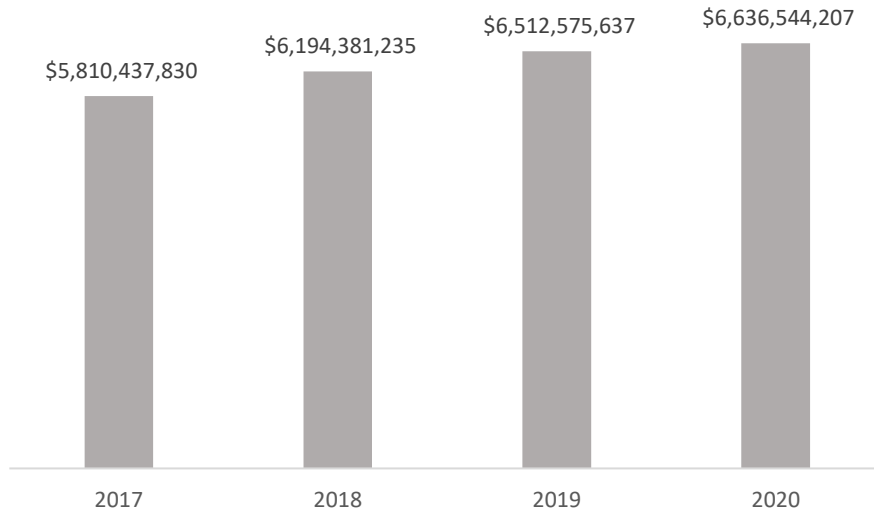


TABLE 1. CLEAN ENERGY GROSS REGIONAL PRODUCT (GRP) BY VALUE CHAIN, 2019-2020

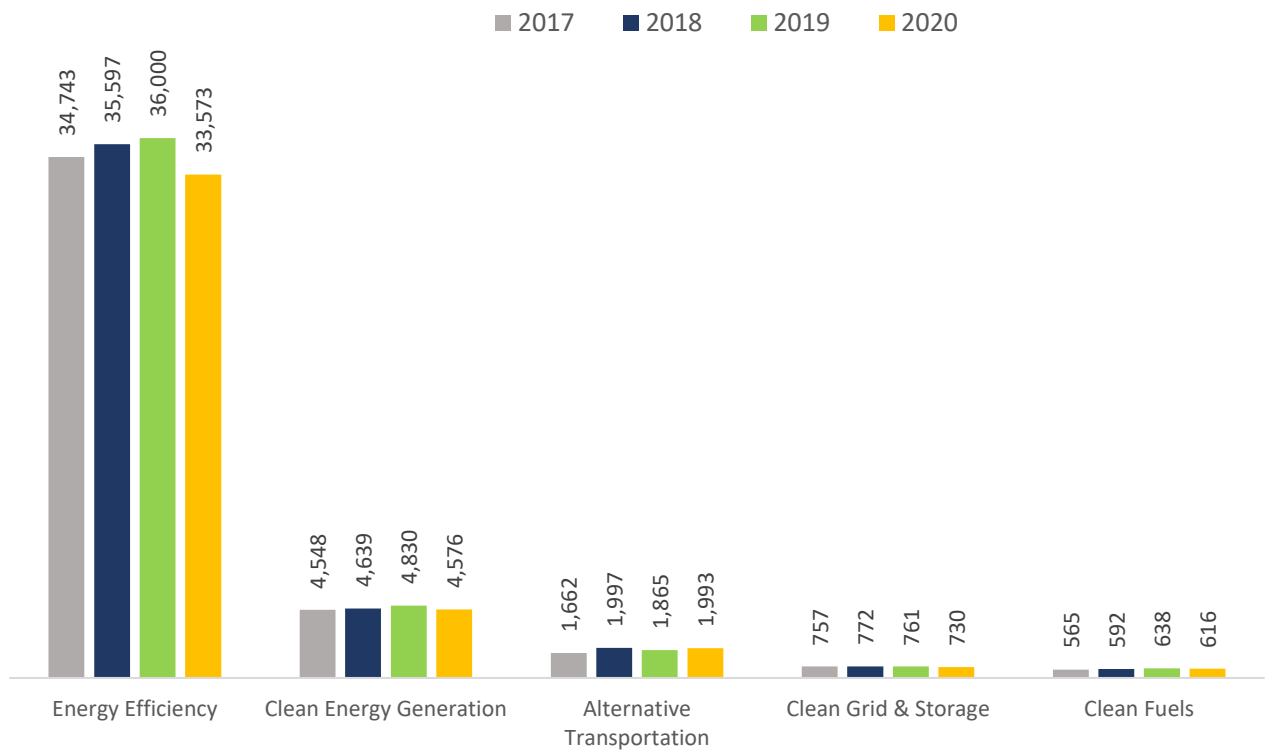
	2019 Clean Energy GRP	2020 Clean Energy GRP	% Change	Proportion
Professional and Business Services	\$2,132,314,808	\$2,141,634,503	0.4%	32.3%
Manufacturing	\$2,078,550,283	\$1,810,522,268	-12.9%	27.3%
Utilities	\$1,057,284,841	\$1,364,545,000	29.1%	20.6%
Construction	\$692,684,480	\$659,618,808	-4.8%	9.9%
Wholesale Trade	\$527,047,849	\$635,027,082	20.5%	9.6%
Other Services	\$18,662,106	\$21,312,037	14.2%	0.3%
Agriculture and Forestry	\$6,031,271	\$3,884,509	-35.6%	0.1%
TOTAL	\$6,512,575,637	\$6,636,544,207	1.9%	

¹⁰ Total Connecticut Gross Regional Product (GRP) from Bureau of Economic Analysis (BEA), 2020, real GRP in millions of chained 2012 dollars.

Nearly all technology sectors, with the exception of alternative transportation saw employment declines in 2020. The energy efficiency sector shed the highest number of jobs and also had the greatest percent decline with a loss of just over 2,400 workers or a decline of 6.7 percent compared to the last quarter of 2019. Clean energy generation firms saw employment decline by 5.3 percent, or 255 jobs, followed by clean grid and storage and clean fuels firms which shed a collective 50 jobs in 2020.

The alternative transportation grew by almost seven percent, resulting in 128 new alternative transportation jobs in 2020.

FIGURE 4. CLEAN ENERGY EMPLOYMENT BY SECTOR, 2015-2020



There were 4,284 clean energy establishments in 2020 across Connecticut, about 60 fewer firms compared to 2019 or a 1.4 percent decline. Overall, there was a slight decline in energy efficiency, clean energy generation, and clean fuels firms. Conversely, the number of firms conducting alternative transportation and clean grid and storage work in 2020 increased by 5.6 and 7.4 percent, respectively.

TABLE 2. CLEAN ENERGY ESTABLISHMENTS BY SECTOR, 2017-2020

	2017	2018	2019	2020
Energy Efficiency	3,677	3,728	3,833	3,771
Clean Energy Generation	223	241	258	247
Alternative Transportation	172	194	177	187
Clean Fuels	58	59	52	50
Clean Grid & Storage	28	31	27	29
TOTAL	4,159	4,253	4,347	4,284

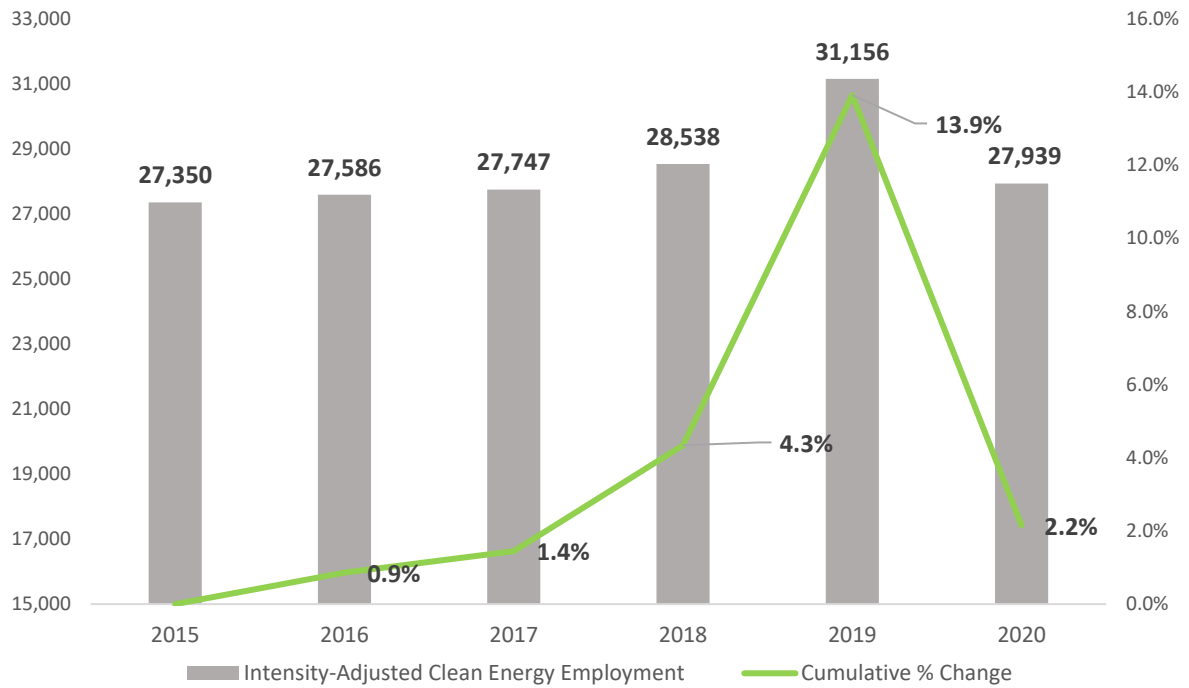
Full-Time Equivalent Clean Energy Jobs

FTE clean energy jobs represent a subset of total clean energy jobs from Figure 1 in the previous section. FTE jobs are a useful metric to identifying the extent of clean energy activity going on in a state. An increase in FTE jobs indicates that more clean energy workers are dedicating an increasing amount of their work week, or labor hours, to clean energy-specific activities possibly due to increased policy support and financial incentives creating more demand for clean energy goods and services. For instance, a traditional HVAC worker might have spent only a quarter of their work week installing or maintaining energy efficient HVAC technologies in 2017. But if a state began offering rebates in 2018 for efficient heat pumps, that traditional HVAC worker would likely now be spending the majority of labor hours in a work week installing high efficiency heat pumps. This increase in clean energy-related activity per worker translates to more FTE clean energy jobs.¹¹

As of the last quarter of 2020 there were 27,939 FTE clean energy jobs in Connecticut—a decline of 10.3 percent in 12 months, or about 3,200 fewer FTE clean energy workers. Compared to the baseline in 2015, FTE clean energy jobs were still about two percent higher.

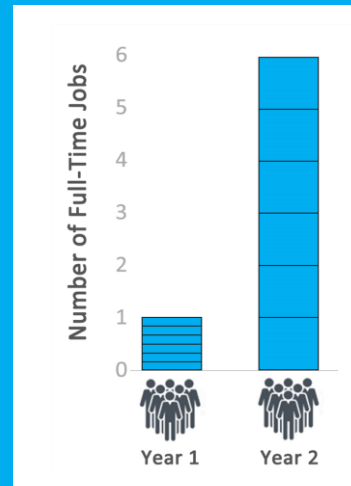
¹¹ It is important to note that FTE jobs are not the same as “full-time equivalent” in terms of representing 40 hours of work per week. FTE clean energy jobs are unrelated to how many hours worked but refer solely to the proportion of total hours that are dedicated to clean energy activities, whether the worker be part-time or full-time. In other words, if a clean energy worker works 20 hours per week but dedicates all 20 hours to clean energy-related work, then this worker would be counted as one clean energy FTE.

FIGURE 5. FULL-TIME EQUIVALENT CLEAN ENERGY JOBS, 2015-2020¹²



FTE Clean Energy Jobs Explained

An example can illustrate the importance of tracking FTE clean energy employment. If a Heating Ventilation, and Air Conditioning (HVAC) firm had 6 installers in 2018 who occasionally installed heat pumps, and now has 6 installers who exclusively do so, there would be no change in the total number of clean energy workers reported. However, because the number of labor hours working with heat pumps has increased, FTE jobs would show a corresponding increase.



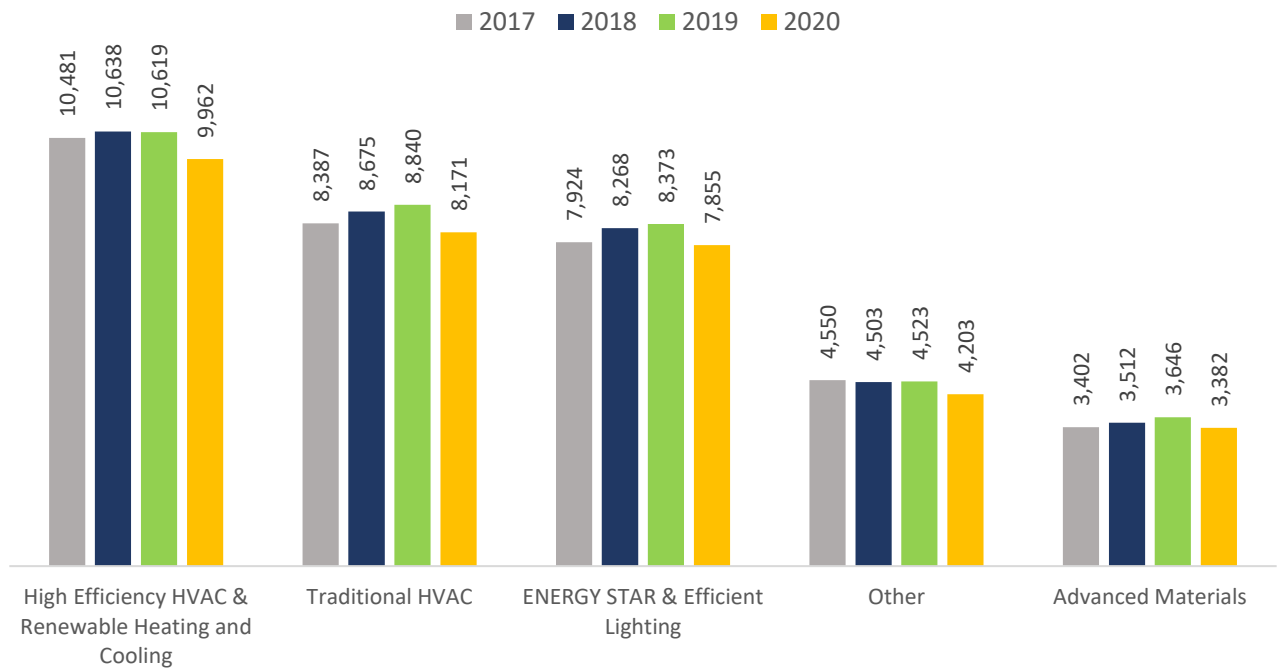
¹² These jobs were extrapolated using a combination of state-level and census region data. The data was adjusted based on revenue distribution by technology and weighted according to how much time workers were reported to spend on clean energy activities (0-49 percent, 50-99 percent, or 100 percent). For a full description of this methodology, please refer to Appendix A.

Detailed Clean Energy Sector Employment

Energy Efficiency

All energy efficiency sub-technologies saw employment declines in 2020. The largest energy efficiency sub-sector in Connecticut, high efficiency HVAC and renewable heating and cooling, declined by almost 660 jobs or 6.2 percent between 2019 and 2020. Traditional HVAC firms shed almost 670 workers for a 7.6 percent decline in jobs. ENERGY STAR and efficient lighting firms shed more than 500 jobs (-6.2 percent) while employment in advanced materials declined by just over 260 jobs (-7.2 percent).

FIGURE 6. ENERGY EFFICIENCY EMPLOYMENT BY SUB-TECHNOLOGY, 2017-2020¹³



¹³ Traditional HVAC workers are those individuals that spend at least a portion, or less than half, of their time on energy-efficient heating and cooling technologies and the remainder on traditional, non-efficient technologies. High efficiency HVAC workers dedicate the majority to all of their labor hours to efficient HVAC technologies. For more information, please refer to the Clean Energy Technology List and definitions in Appendix B.

Clean Energy Generation

The majority of job losses in the clean energy generation sector were from solar companies. Between 2019 and 2020, solar employment declined by almost 200 jobs (-6.8 percent). Compared to the 2011 baseline, solar employment remains 113 higher.

Employment in the nuclear electric power generation sub-sector declined by three percent, a loss of about 40 jobs, followed by bioenergy and combined heat and power (-3.4 percent or 12 jobs lost). The remaining clean energy generation sub-sectors all declined by less than 10 jobs.

FIGURE 7. CLEAN ENERGY GENERATION EMPLOYMENT BY SUB-TECHNOLOGY, 2017-2020

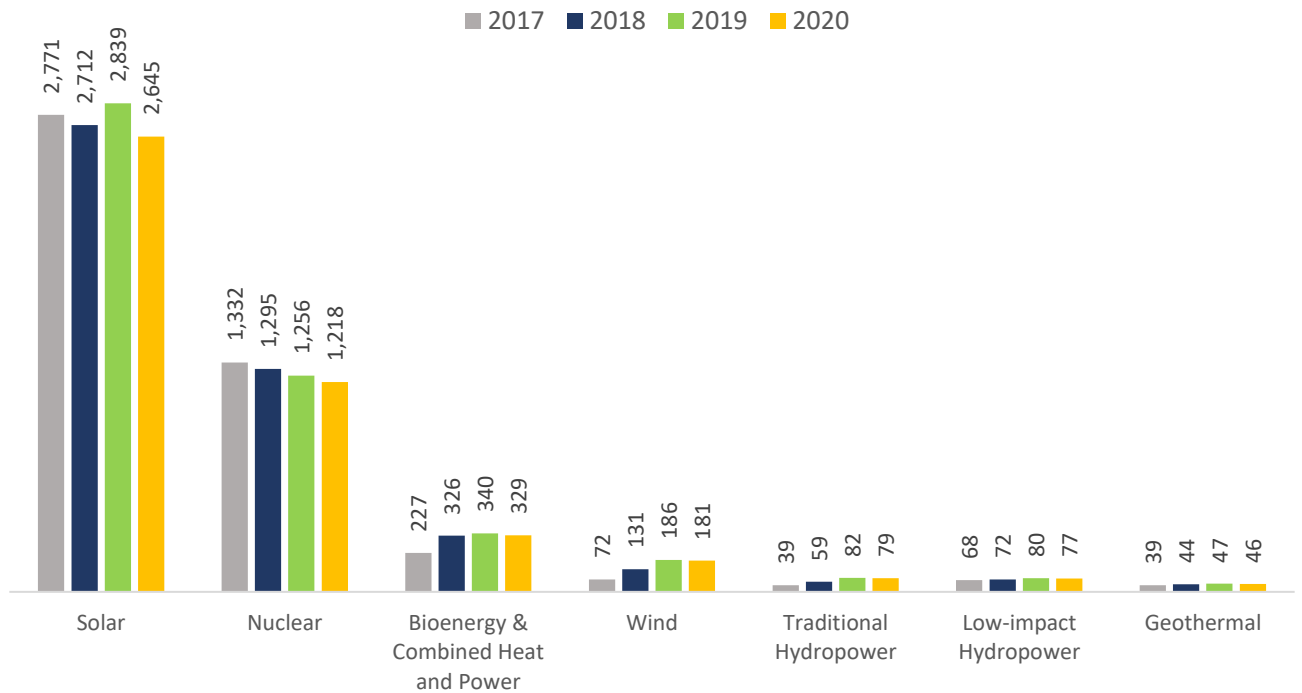
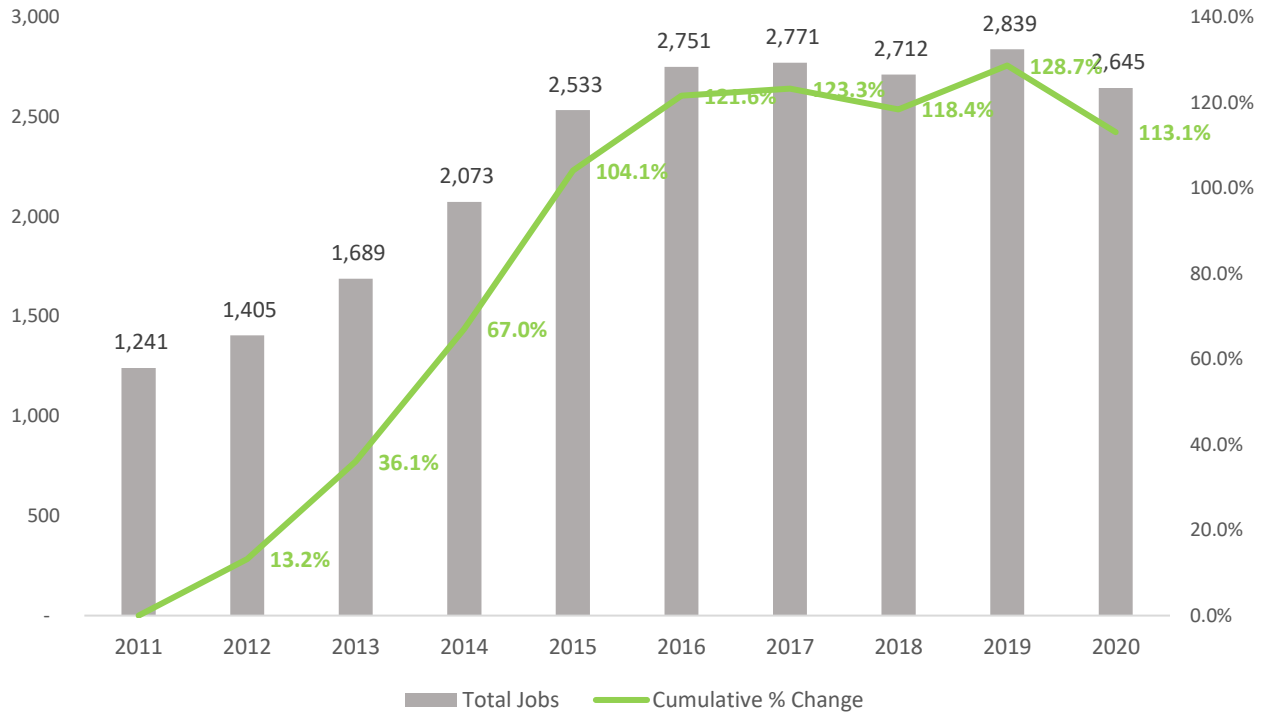


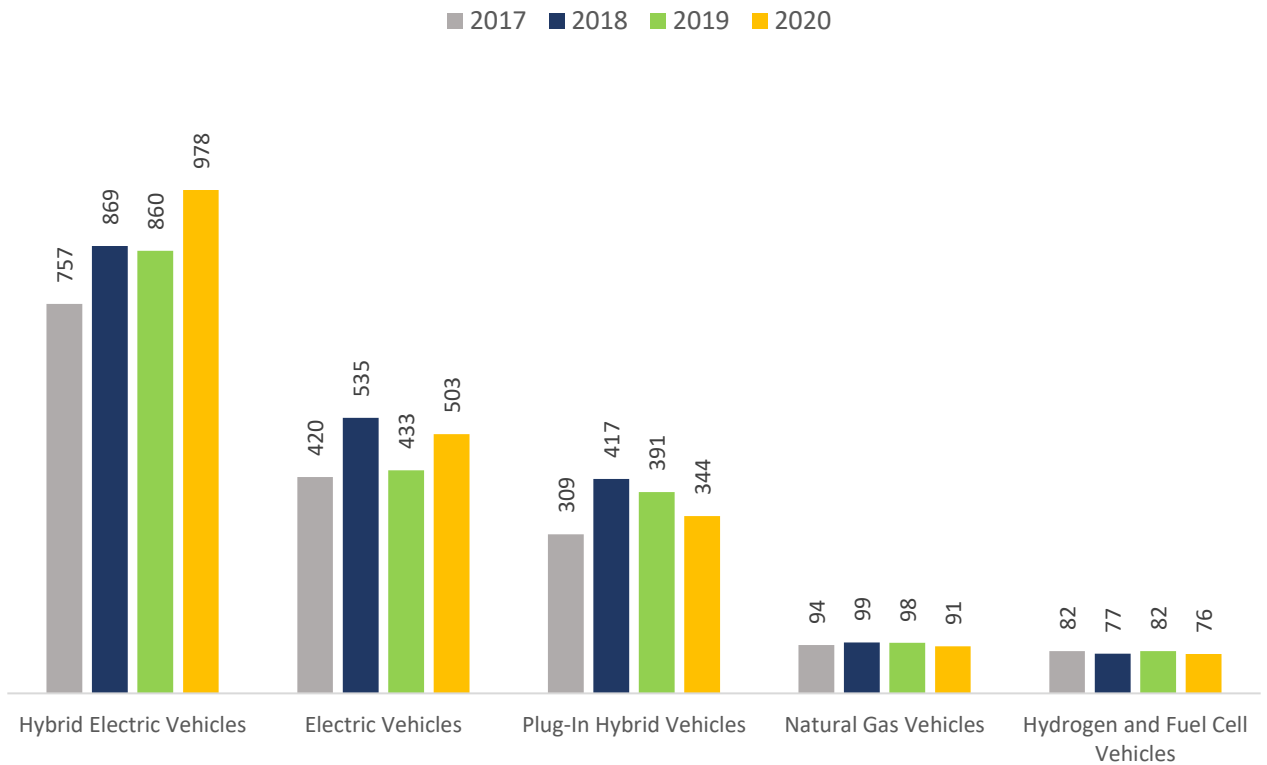
FIGURE 8. SOLAR EMPLOYMENT, 2011-2020



Alternative Transportation

Collectively, hybrid electric and electric vehicles firms added 188 new jobs to the clean energy labor market in 2020. These firms saw job growth despite economy- and sector-wide employment losses. Job losses in the plug-in hybrid, natural gas, and hydrogen and fuel cell vehicle sub-sectors resulted in the net gain of roughly 128 alternative transportation job in Connecticut.

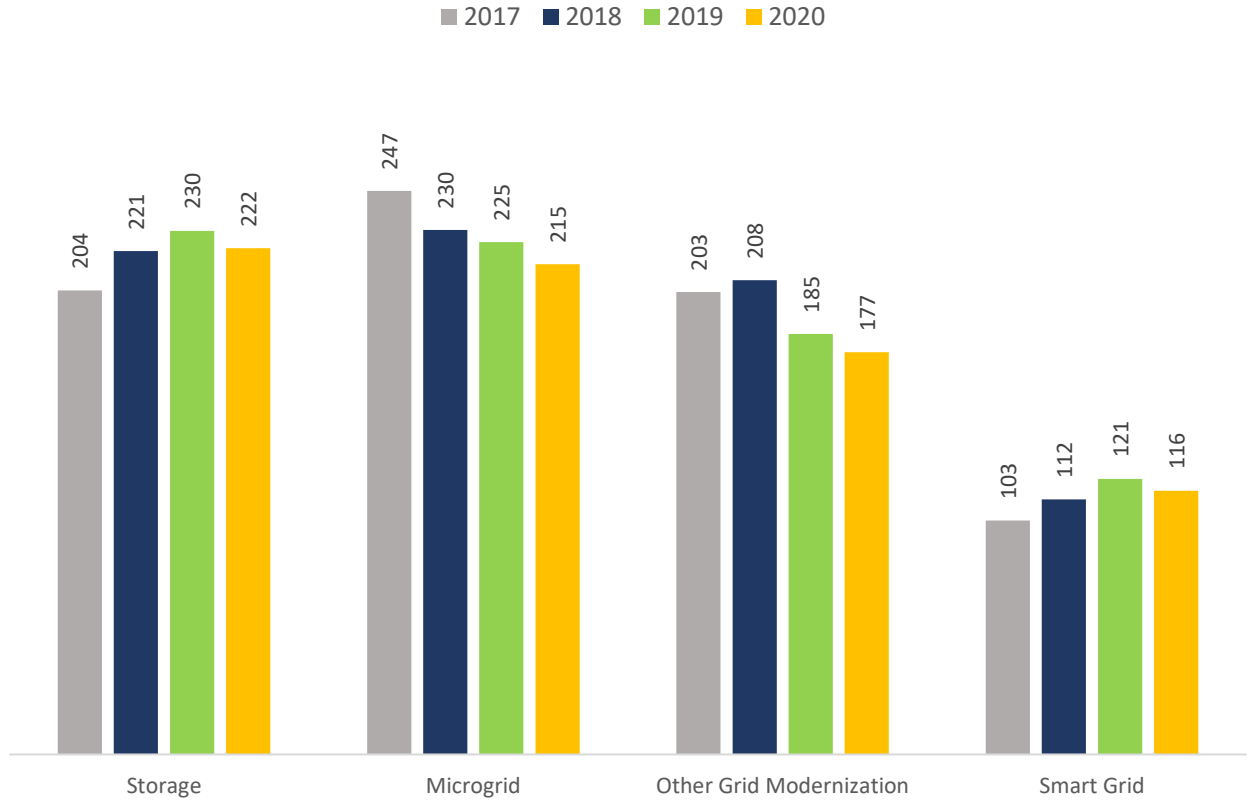
FIGURE 9. ALTERNATIVE TRANSPORTATION EMPLOYMENT BY SUB-TECHNOLOGY, 2017-2020



Clean Grid & Storage

In total, the clean grid and storage sector shed about 30 jobs in 2020, for a decline of four percent. Both clean grid and storage and clean fuels saw the smallest job losses of all clean energy sectors in Connecticut.

FIGURE 10. CLEAN GRID AND STORAGE EMPLOYMENT BY SUB-TECHNOLOGY, 2017-2020¹⁴

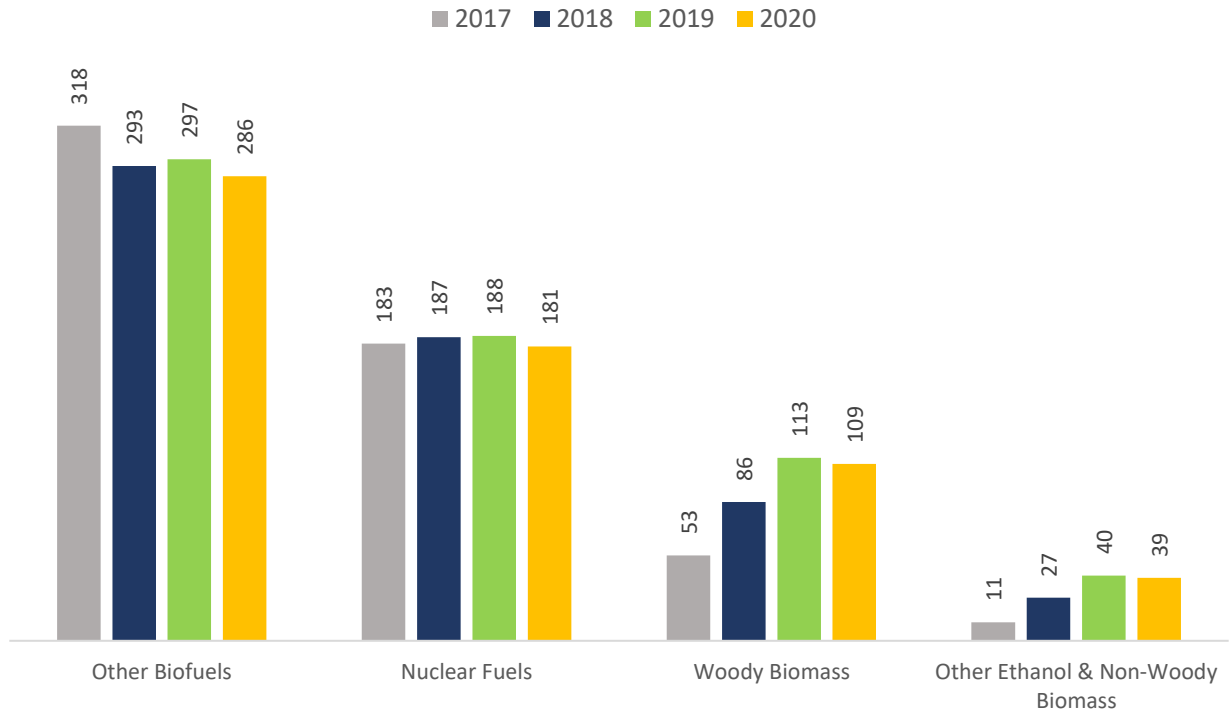


¹⁴ Per the Connecticut definition, storage companies include pumped hydropower storage, battery storage (including battery storage for solar generation), mechanical storage, thermal storage, biofuels (including ethanol and biodiesel), and nuclear fuels.

Clean Fuels

Clean fuels firms shed a collective roughly 20 jobs across all sub-technologies; nearly all sub-sectors shed about 10 jobs or less between 2019 and 2020.

FIGURE 11. CLEAN FUELS EMPLOYMENT BY SUB-TECHNOLOGY, 2017-2020¹⁵



¹⁵ Other ethanol and non-woody biomass (including biodiesel) covers all fuels made from other materials such as straw, manure, vegetable oil, animal fats, etc.

Clean Energy Demographics

The proportion of White clean energy workers decreased slightly compared to 2019, from 82 percent to 80.8 percent. At the same time, Hispanic or Latinx workers increased by one point, from representing 10.1 percent of the workforce in 2019 to 11.1 percent of clean energy workers in 2020. The proportion of Black or African American workers also increased slightly since 2019, from 5.8 percent to 6.3 percent. Conversely, the proportion of Veterans in Connecticut’s clean energy workforce declined from 10.6 percent in 2019 to 9.9 percent in 2020.

Overall union *membership* in Connecticut increased from 14.5 percent in 2019 to 17.7 percent in 2020, while the proportion of individuals *represented* by unions¹⁶ also increased from 16 percent in 2019 to 18.4 percent in 2020. By comparison, U.S. private-sector union membership sat at roughly six percent in 2019 and 2020.¹⁷ National clean energy sector union representation was 9.9 percent in 2020, while union membership sat at nine percent.¹⁸ **In Connecticut, the clean energy sector’s unionization membership and coverage rates were X and Y percent, respectively.**

TABLE 3. CLEAN ENERGY WORKFORCE DEMOGRAPHICS, 2020¹⁹

	Connecticut Clean Energy	Connecticut Overall	US Clean Energy	US Overall
Male	72.3%	51.1%	72.6%	52.4%
Female	27.7%	48.9%	27.4%	47.6%
Hispanic or Latino	11.1%	14.8%	16.5%	17.3%
Not Hispanic or Latino	88.9%	85.2%	83.5%	82.7%
American Indian or Alaska Native	0.9%	0.3%	1.4%	0.8%
Asian	6.3%	5.1%	8.2%	6.5%
Black or African American	6.3%	11.5%	8.4%	12.7%
Native Hawaiian or other Pacific Islander	0.7%	0.0%	1.0%	0.2%
White	80.8%	80.7%	73.1%	77.2%
Two or more races	5.1%	2.5%	7.9%	2.7%
Veterans	9.9%	4.0%	9.0%	5.9%
55 and over	14.1%	26.1%	13.5%	22.3%
Union Membership	%	17.7%	9.0%	6.3%

¹⁶ “Workers are counted as union *members* if they are a member of a labor union or of an employee association similar to a union. Workers are counted as *covered* by a collective bargaining agreement if they are union members or if they are not members but say they are covered by a union contract.” Definitions are from: <http://unionstats.gsu.edu/UnionStats.pdf>.

¹⁷ Bureau of Labor Statistics: <https://www.bls.gov/news.release/pdf/union2.pdf>. The national union membership rate of 6.3 percent refers to private-sector workers. The overall union membership rate for all workers 16 years of age and older was 10.8 percent in 2020.

¹⁸ Due to a methodology update this year in extrapolating clean energy unionization rates, union membership and coverage are not comparable to last year’s report.

¹⁹ Demographic data is pulled from the United States Energy and Employment Report 2021 (USEER 2021); the Bureau of Labor Statistics: Current Population Survey, Veterans News Release, and Union Membership Rates; as well as JobsEQ Population Demographics.

TABLE 4. CONNECTICUT UNION MEMBERSHIP RATE BY CLEAN ENERGY SECTOR, 2020²⁰

	Union Membership Rate
Clean Energy Average	6.8%
Clean Fuels	4.6%
Clean Energy Generation	4.2%
Clean Grid & Storage	11.4%
Energy Efficiency	7.0%
Alternative Transportation	8.5%

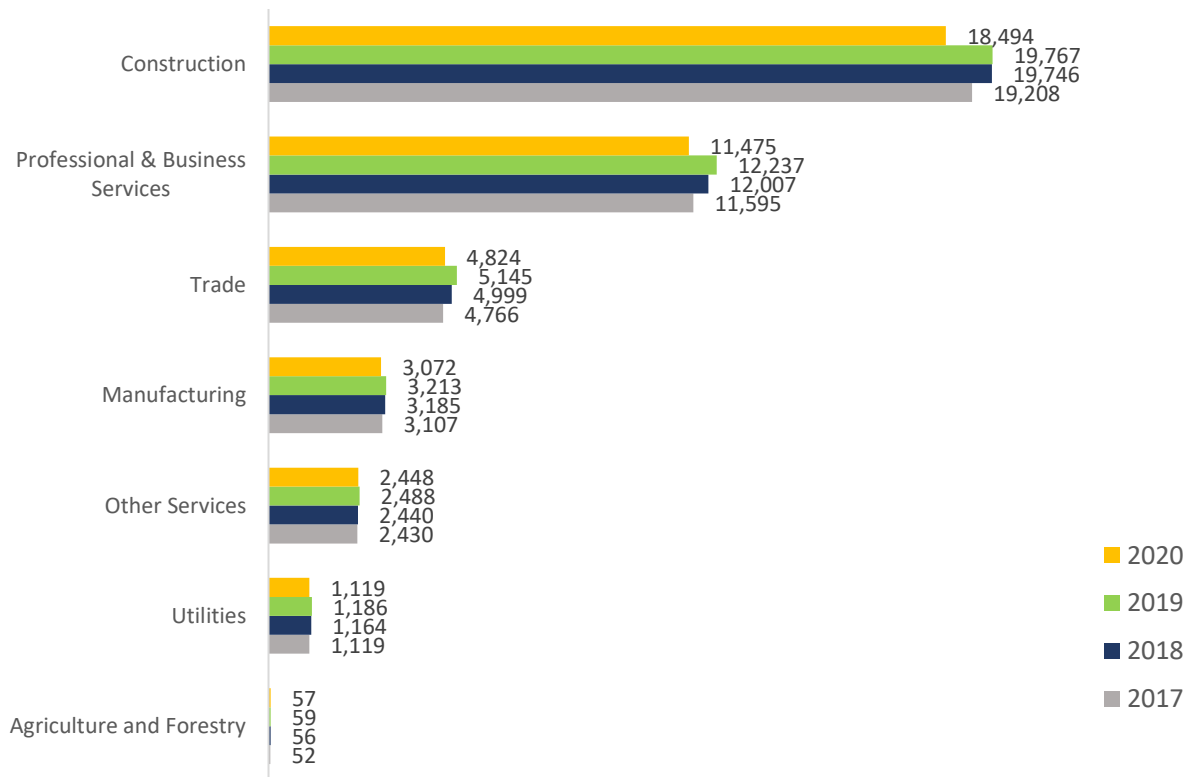
Clean Energy Value Chain Employment

Overall Value Chain Jobs

The clean energy construction industry saw the largest total decline and percent decline in jobs in 2020. Overall, clean energy construction firms shed almost 1,300 workers, for a decline of 6.4 percent between the last quarters of 2019 and 2020. Professional and business services, which includes consulting, finance, legal, or research support declined by 6.2 percent (-762 jobs), followed by wholesale trade with a decline of 6.3 percent or 322 jobs. Clean energy manufacturing firms shed 141 jobs (-4.4 percent).

The utilities sector declined by 5.7 percent, a loss of 67 jobs, while other services, which largely consists of automotive repair and maintenance, lost 39 jobs for a rate of 1.6 percent. The agriculture and forestry industry in Connecticut is small, and employment remained fairly flat between 2017 and 2020.

FIGURE 12. CLEAN ENERGY EMPLOYMENT BY VALUE CHAIN SEGMENT, 2017-2020



Value Chain Jobs by Sector

On average, construction jobs account for 45 percent of all clean energy employment in Connecticut. For the clean grid and storage (63 percent) and energy efficiency (50 percent) sectors, construction activity accounts for half or more of total jobs. Within the alternative transportation sector, all value chain segments experienced growth in 2020, with the majority of job growth concentrated in manufacturing, wholesale trade, and other services, which is largely comprised of automotive repair and maintenance.

TABLE 5. VALUE CHAIN EMPLOYMENT BY CLEAN ENERGY SECTOR, 2020

	Clean Energy Generation	Clean Grid & Storage	Energy Efficiency	Clean Fuels	Alternative Transportation	TOTAL
Agriculture and Forestry	-	-	-	57	-	57
Utilities	1,119	-	-	-	-	1,119
Construction	1,217	457	16,819	-	-	18,494
Manufacturing	336	61	2,169	160	346	3,072
Trade	408	37	3,644	337	398	4,824
Professional & Business Services	827	140	10,342	59	107	11,475
Other Services	669	35	599	3	1,143 ²¹	2,448
TOTAL	4,576	730	33,573	616	1,993	41,488

TABLE 6. VALUE CHAIN PROPORTIONAL EMPLOYMENT BY CLEAN ENERGY SECTOR, 2020

	Connecticut Clean Energy Average	Clean Energy Generation	Clean Grid & Storage	Energy Efficiency	Clean Fuels	Alternative Transportation
Agriculture and Forestry	0.1%	0.0%	0.0%	0.0%	9.2%	0.0%
Utilities	2.7%	24.5%	0.0%	0.0%	0.0%	0.0%
Construction	44.6%	26.6%	62.6%	50.1%	0.0%	0.0%
Manufacturing	7.4%	7.3%	8.4%	6.5%	26.0%	17.3%
Trade	11.6%	8.9%	5.1%	10.9%	54.8%	19.9%
Professional & Business Services	27.7%	18.1%	19.2%	30.8%	9.5%	5.4%
Other Services	5.9%	14.6%	4.8%	1.8%	0.4%	57.3%

²¹ These jobs are mostly focused on automotive repair and maintenance for alternative and clean fuel vehicle technologies.

Clean Energy Hiring & COVID-19 Impacts

Hiring Difficulty

At the end of 2020, about eight in ten clean energy employers indicated that they had an adequate number of qualified clean energy employees to meet their current needs. Of the 17 percent that indicated they did not have an adequate supply of workers, more than half of these firms (57 percent) indicated that they were currently searching or had recently search for employees to fill vacancies or new positions.

FIGURE 13. ADEQUATE WORKERS TO MEET CURRENT NEEDS, 2020

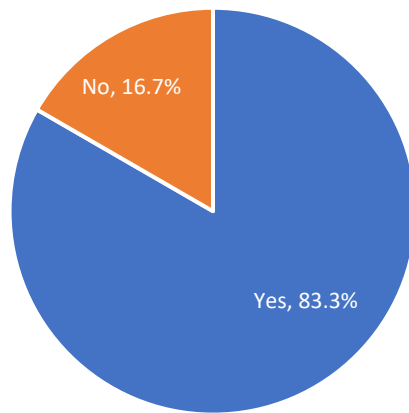
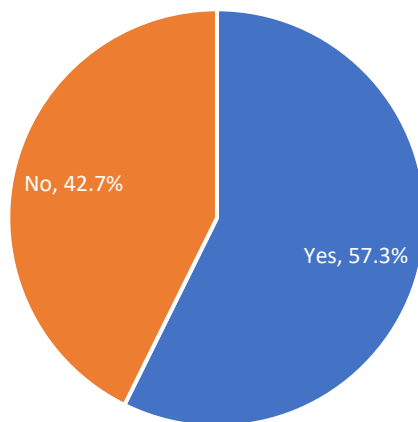
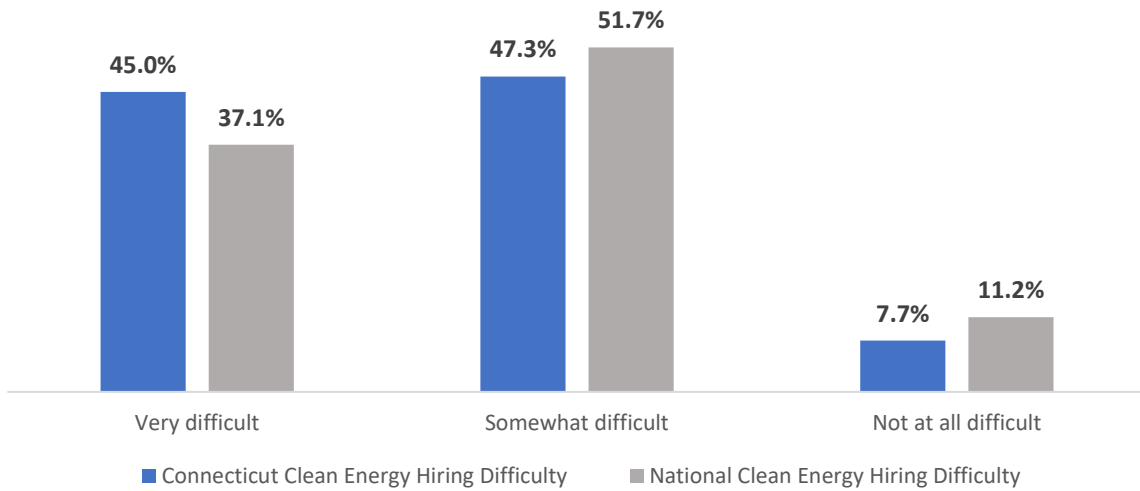


FIGURE 14. ACTIVELY HIRING FOR NEW POSITIONS OR VACANCIES, 2020



Of clean energy firms that were hiring in 2020, 92 percent indicated some level of hiring difficulty, with 45 percent reporting that hiring had been very difficult and 47 percent indicating hiring was somewhat difficult. Hiring difficulty in Connecticut was slightly higher than the national clean energy average of 84 percent.

FIGURE 15. EMPLOYER-REPORTED HIRING DIFFICULTY, 2020



COVID-19 Impacts

Three in ten firms indicated that they had to lay off, furlough, or reduce pay for their clean energy workers as a result of COVID-19 and related stay-at-home orders. Of these individuals, the majority (55 percent) indicated that they had to temporarily lay off workers, while another third reported that they had to furlough their clean energy employees. Eight percent reported a reduction in hours for their clean energy staff, while roughly four percent indicated reduced pay or benefits during 2020.

FIGURE 16. COVID-19 WORKFORCE IMPACTS, 2020

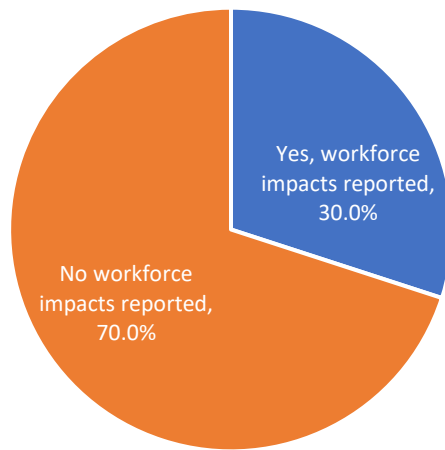
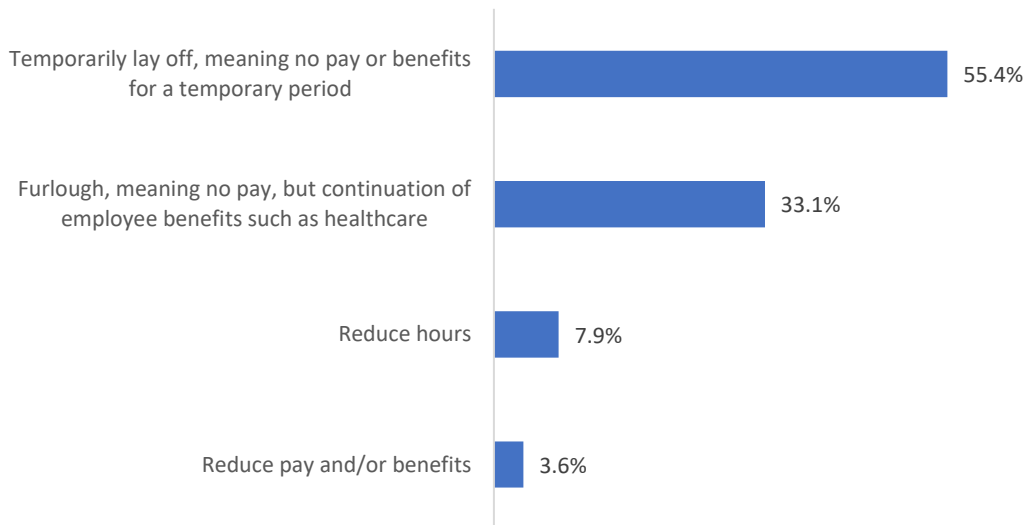
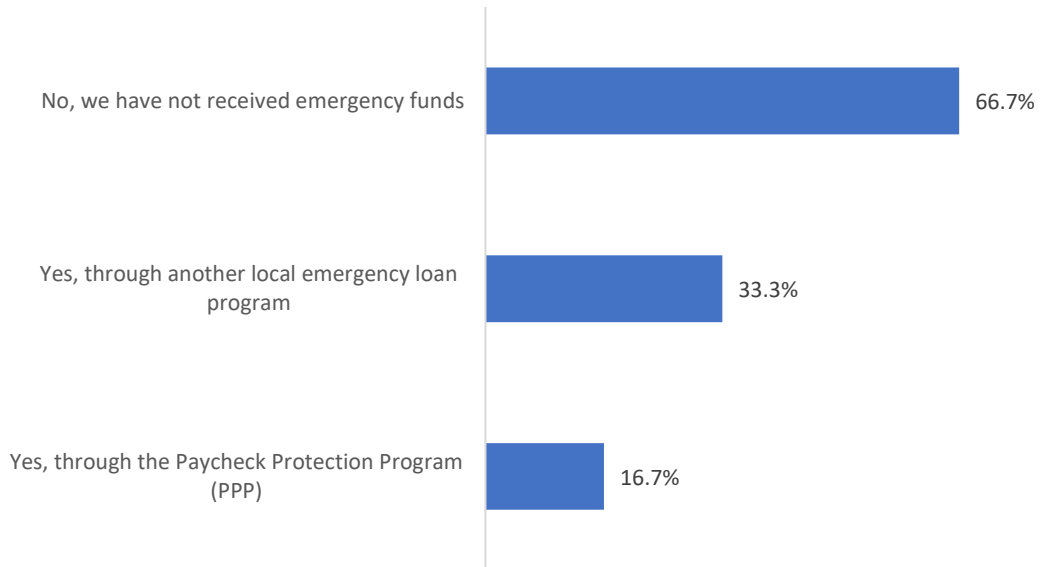


FIGURE 17. COVID-19 WORKFORCE IMPACTS, 2020



Two-thirds of Connecticut’s surveyed clean energy firms reported that they did not receive emergency funds in 2020. A third of clean energy firms reported that they received assistance through a local emergency loan program, and 17 percent of clean energy firms reported that they received support through the Paycheck Protection Program.

FIGURE 18. COVID-19 RELIEF PROGRAMS & ASSISTANCE, 2020²²



²² This was a multiple-choice question, and respondents were given the option to select yes for more than one program. However, individuals who selected “no, we have not received emergency funds” were not able to select “yes” for any other response.

Regional Clean Energy Employment

The three counties with the highest concentration of clean energy employment shed jobs at a rate of 20 to 32 percent in 2020, resulting in a collective loss of just over 2,000 clean energy jobs across the counties of Hartford, Fairfield, and New Haven.

FIGURE 19. CLEAN ENERGY EMPLOYMENT BY COUNTY, 2019-2020²³

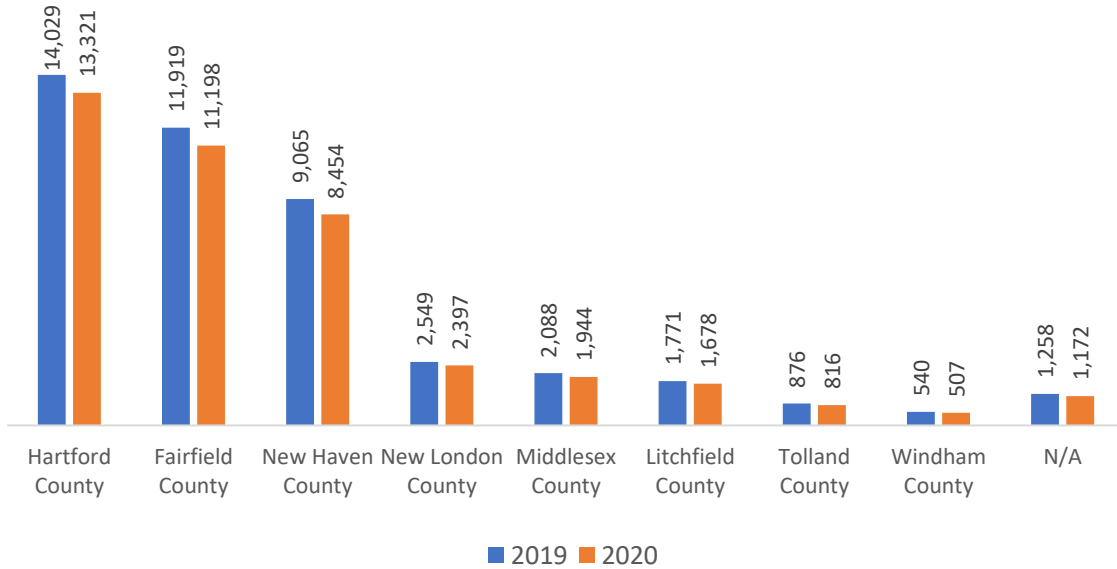
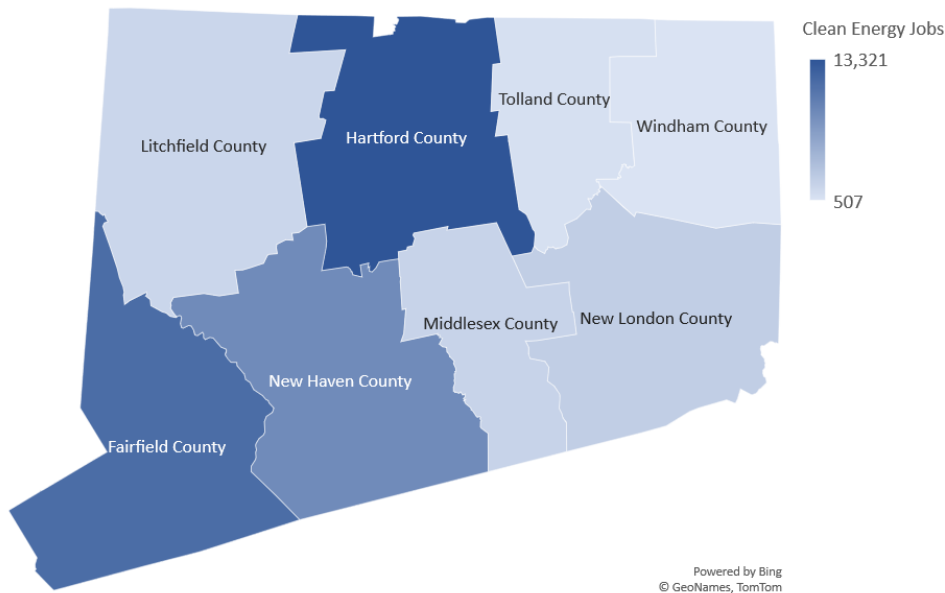


FIGURE 20. MAP OF CLEAN ENERGY EMPLOYMENT BY COUNTY, 2020



²³ Employment categorized as “n/a” could not be assigned to a single location.

Appendix A: Research Methodology

Data for the 2021 Connecticut Clean Energy Industry Report is taken from the US Energy and Employment Report (USEER). The survey was administered by phone and web. The phone survey was conducted by ReconMR, and the web instrument was programmed internally. Each respondent was required to use a unique ID in order to prevent duplication.

In total, 597 business establishments in Connecticut participated in the survey effort. These responses were used to develop incidence rates among industries as well as to apportion employment across various industry categories in ways currently not provided by state and federal labor market information agencies. The margin of error for incidence is +/- 3.99 percent for Connecticut at a 95 percent confidence interval.

The full research methodology for USEER may be found at: <https://www.usenergyjobs.org/>

Appendix B: Clean Energy Technology List

The Connecticut Green Bank, Department of Energy and Environmental Protection, Eversource, and United Illuminating, operating through the Joint Committee, collaborated with BW Research Partnership to develop a clean energy technology definition based on the state's clean energy and climate change policies. Employment in this report is broken out into five major technology sectors and clean energy-specific sub-technologies. The major clean energy sectors are as follows:

1. Energy Efficiency
2. Clean Energy Generation
3. Alternative Transportation
4. Clean Grid & Storage
5. Clean Fuels

A clean energy job is defined as any worker who is directly involved with the research, development, production, manufacture, distribution, sales, implementation, installation, or repair of components, goods, or services related to the sectors described above. These jobs also include supporting services such as consulting, finance, tax, and legal services related to energy.

Included in these sectors for Connecticut are the following clean energy sub-technologies. The sub-technologies below were selected based on their compliance with clean energy-specific policies across the state, such as the Renewable Portfolio Standard and Zero Emission Vehicle Standard.²⁴

CLEAN ENERGY GENERATION

- Solar Photovoltaic Electric Generation
- Concentrated Solar Electric Generation
- Wind Generation
- Geothermal Generation
- Bioenergy/Biomass Generation
- Low-Impact Hydroelectric Generation, including wave/kinetic generation
- Traditional Hydroelectric Generation
- Nuclear Generation
- Combined Heat and Power

²⁴ Including, but not limited to Public Act 08-98, Public Act 11-80, Public Act 17-3, Public Act 18-50, Public Act 18-82, Public Act 19-71, and Executive Order 3.

CLEAN GRID & STORAGE

Electric Power Transmission and Distribution

- Smart Grid
- Microgrids
- Other Grid Modernization

Storage

- Pumped Hydropower Storage
- Battery Storage, including battery storage for solar generation
 - Lithium Batteries
 - Lead-Based Batteries
 - Other Solid-Electrode Batteries
 - Vanadium Redox Flow Batteries
 - Other Flow Batteries
- Mechanical Storage, including flywheels, compressed air energy storage, etc.
- Thermal Storage
- Biofuels, including ethanol and biodiesel
- Nuclear Fuel

ENERGY EFFICIENCY

- ENERGY STAR Certified Appliances, excluding HVAC
- ENERGY STAR Certified Heating Ventilation and Air Conditioning (HVAC), including boilers and furnaces with an AFUE rating of 90 or greater and air and central air conditioning units of 15 SEER or greater
- Traditional HVAC goods, control systems, and services²⁵
- ENERGY STAR Certified Electronics (TVs, Telephones, Audio/Video, etc.)
- ENERGY STAR Certified Windows and Doors
- ENERGY STAR Certified Roofing
- ENERGY STAR Certified Seal and Insulation
- ENERGY STAR Certified Commercial Food Service Equipment
- ENERGY STAR Certified Data Center Equipment
- ENERGY STAR Certified LED Lighting
- Other LED, CFL, and Efficient Lighting
- Solar Thermal Water Heating and Cooling
- Other Renewable Heating and Cooling (geothermal, biomass, heat pumps, etc.)
- Advanced Building Materials/Insulation
- Recycled Building Materials

²⁵ “Traditional HVAC” workers are those that spend a portion of their time on energy efficient products and services; it is not inclusive of all HVAC workers, only those that are reported to spend less than 50 percent of their labor hours on efficient products and services. “ENERGY STAR/High AFUE HVAC” workers spend the majority of their labor hours (more than 50 percent) working with energy efficient HVAC technologies. The employment data makes this distinction in order to capture all HVAC workers that spend *any* portion of their labor hours on efficient HVAC technologies, but separates the two job categories in order to appropriately track how much high efficiency HVAC activity is occurring.

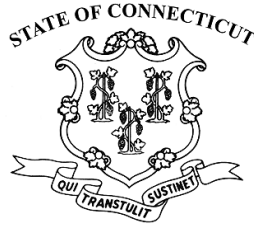
- Reduced Water Consumption Products and Appliances
- Other Energy Efficiency

CLEAN FUELS

- Other Ethanol/Non-Woody Biomass, including biodiesel
- Woody Biomass/Cellulosic Biofuel
- Other Biofuels
- Nuclear Fuel

ALTERNATIVE TRANSPORTATION

- Hybrid Electric Vehicles
- Plug-In Hybrid Vehicles
- Electric Vehicles
- Natural Gas Vehicles
- Hydrogen Vehicles
- Fuel Cell Vehicles
- Other Vehicles



Substitute Senate Bill No. 356

Public Act No. 21-48

AN ACT ESTABLISHING AN ENERGY EFFICIENCY RETROFIT GRANT PROGRAM FOR AFFORDABLE HOUSING.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. (NEW) (*Effective from passage*) (a) Not later than September 1, 2021, the Department of Energy and Environmental Protection shall, using available federal or other funds, establish an energy efficiency retrofit grant program. The Commissioner of Energy and Environmental Protection may receive funds from the federal government, corporations, associations or individuals to fund the grant program. Such program shall award grants to fund the installation of energy efficient upgrades to (1) affordable housing, as defined in section 8-39a of the general statutes, including, but not limited to, property of a housing authority, as defined in section 8-39 of the general statutes, or (2) other dwelling units owned by a landlord, as defined in section 47a-1 of the general statutes, at the discretion of the commissioner. Such upgrades shall include energy efficiency and weatherization measures and may include, but need not be limited to, the installation of rooftop solar photovoltaic panels, energy storage systems located on the customer's premises, electric vehicle charging infrastructure, heat pumps and balanced ventilation, and the mitigation of health and safety hazards including, but not limited to, gas leaks, mold, vermiculite and asbestos, lead and radon, to the extent such hazards impede the

Substitute Senate Bill No. 356

installation of energy efficiency upgrades and weatherization measures.

(b) The Department of Energy and Environmental Protection shall develop standards for the energy efficiency retrofit grant program. The department may consult with other state agencies, quasi-public agencies and housing authorities, and shall consider the energy performance standards developed pursuant to section 16a-38 of the general statutes, in establishing the standards for the grant program. The department may coordinate with other state agencies, quasi-public agencies and housing authorities to implement the grant program in conjunction with other existing state programs that have the purpose of installing or otherwise assisting state residents to obtain the upgrades set forth in subsection (a) of this section. The department may retain consultants with expertise in energy efficiency retrofit programs or distributed energy programs, or both, for assistance with its development or administration of the grant program.

(c) A grant applicant shall submit an application to the Commissioner of Energy and Environmental Protection on forms prescribed by the commissioner, which shall include, but not be limited to: (1) A description of the proposed project; (2) an explanation of the expected benefits of the project in relation to the purposes of this section; (3) information concerning the financial and technical capacity of the applicant to undertake the proposed project; (4) a project budget; and (5) any other information deemed necessary by the commissioner. The commissioner shall prioritize grants to applicants who (A) use the services of local contractors who pay the prevailing wage and who make good faith efforts to hire, or cause to be hired, available and qualified minority business enterprises, as defined in section 4a-60g of the general statutes, and (B) upgrade affordable housing or dwelling units for households that include an individual who qualifies for utility financial hardship programs or who receives means-tested assistance administered by the state or federal government.

Substitute Senate Bill No. 356

(d) Not later than January 1, 2023, and annually thereafter, the Commissioner of Energy and Environmental Protection shall submit a report, in accordance with the provisions of section 11-4a of the general statutes, to the joint standing committees of the General Assembly having cognizance of matters relating to energy and technology and housing. Such report shall include the standards developed pursuant to subsection (b) of this section, an analysis of the scope of residences able to be served by the grant program and proposed goals for the annual percentage of affordable housing units that can be served by the program.

Sec. 2. Subdivision (2) of subsection (b) of section 16-244z of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

(2) On and after January 1, 2022, each electric distribution company shall offer the following options to residential customers for the purchase of products generated from a Class I renewable energy source that is located on a customer's own premises and has a nameplate capacity rating of twenty-five kilowatts or less for a term not to exceed twenty years: (A) A tariff for the purchase of all energy and renewable energy certificates on a cents-per-kilowatt-hour basis; and (B) a tariff for the purchase of any energy produced and not consumed in the period of time established by the authority pursuant to subparagraph (C) of subdivision (1) of this subsection and all renewable energy certificates generated by such facility on a cents-per-kilowatt-hour basis. A residential customer shall select either option authorized pursuant to subparagraph (A) or (B) of this subdivision, consistent with the requirements of this section. Such generation projects shall be sized so as not to exceed the load at the customer's individual electric meter or, in the case of a multifamily dwelling that qualifies under this subsection, the load of the premises, from the electric distribution company providing service to such customer, as determined by such electric

Substitute Senate Bill No. 356

distribution company. For purposes of this section, "residential customer" means a customer of a single-family dwelling, [or] a multifamily dwelling consisting of two to four units, or a multifamily dwelling consisting of five or more units, provided in the case of a multifamily dwelling consisting of five or more units, (i) not less than sixty per cent of the units of the multifamily dwelling are occupied by persons and families with income that is not more than sixty per cent of the area median income for the municipality in which it is located, as determined by the United States Department of Housing and Urban Development, or (ii) such multifamily dwelling is determined to be affordable housing by the Public Utilities Regulatory Authority in consultation with the Department of Energy and Environmental Protection, Department of Housing, Connecticut Green Bank, Connecticut Housing Finance Authority and United States Department of Housing and Urban Development. In the case of a multifamily dwelling consisting of five or more units, a generation project shall only qualify under this subsection if: (I) Each of the dwelling units receives an appropriate share of the benefits from the generation project, and (II) no greater than an appropriate share of the benefits from the generation project is used to offset common area usage. The Public Utilities Regulatory Authority shall initiate an uncontested proceeding to implement the distribution of the benefits from the generation project pursuant to this section.



Substitute Senate Bill No. 952

Public Act No. 21-53

AN ACT CONCERNING ENERGY STORAGE.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. (NEW) (*Effective from passage*) On or before January 1, 2023, and annually thereafter, the Department of Energy and Environmental Protection and the Public Utilities Regulatory Authority shall report, in accordance with section 11-4a of the general statutes, to the joint standing committee of the General Assembly having cognizance of matters relating to energy regarding the quantifiable progress of energy storage deployment against the following goals:

- (1) Three hundred megawatts by December 31, 2024;
- (2) Six hundred fifty megawatts by December 31, 2027; and
- (3) One thousand megawatts by December 31, 2030.

Sec. 2. (NEW) (*Effective July 1, 2021*) (a) On or before January 1, 2022, the Public Utilities Regulatory Authority shall initiate a proceeding to develop and implement one or more programs, and associated funding mechanisms, for electric energy storage resources connected to the electric distribution system. The authority shall establish (1) one or more programs for the residential class of electric customers, (2) one or more programs for commercial and industrial classes of electric customers,

Substitute Senate Bill No. 952

and (3) a program for energy storage systems connected to the distribution system in front of the meter and not located at a customer premises. The authority shall solicit input from the Department of Energy and Environmental Protection, the Connecticut Green Bank, the electric distribution companies and the Office of Consumer Counsel in developing such programs.

(b) On or before January 1, 2022, the authority shall report the status of the proceeding described in subsection (a) of this section, in accordance with the provisions of section 11-4a of the general statutes, to the joint standing committee of the General Assembly having cognizance of matters relating to energy.

(c) In undertaking the proceeding described in subsection (a) of this section, the authority shall consider one or more programs and rate designs to incentivize the deployment of electric energy storage technologies connected to the electric distribution system that most effectively leverage the value of such technologies to achieve objectives including, but not limited to, (1) providing positive net present value to all ratepayers, or a subset of ratepayers paying for the benefits that accrue to that subset of ratepayers; (2) providing multiple types of benefits to the electric grid, including, but not limited to, customer, local, or community resilience, ancillary services, leveling out peaks in electricity use or that support the deployment of other distributed energy resources; (3) fostering the sustained, orderly development of a state-based electric energy storage industry; and (4) maximizing the value from the participation of energy storage systems in capacity markets. The authority shall include consideration of all energy storage configurations that are connected to the distribution system, including systems connected in front of the meter and not located at a customer premises. The authority shall also consider programs and rate designs to incentivize uses of electric energy storage technologies connected to the electric distribution system that avoid or defer investment in

Substitute Senate Bill No. 952

traditional electric distribution system capacity upgrades.

(d) The authority may select the Connecticut Green Bank, the Department of Energy and Environmental Protection, the electric distribution companies, a third party it deems appropriate or any combination thereof, to implement one or more programs for electric energy storage resources connected to the electric distribution system, as directed by the Public Utilities Regulatory Authority.

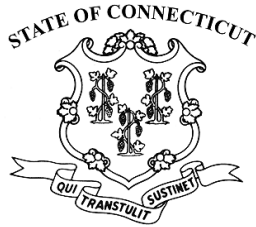
Sec. 3. (NEW) (*Effective July 1, 2021*) (a) The Commissioner of Energy and Environmental Protection, in consultation with the procurement manager identified in subsection (l) of section 16-2 of the general statutes and the Office of Consumer Counsel, may issue requests for proposals for energy storage projects connected at the transmission or distribution level, including stand-alone energy storage projects and energy storage projects paired with Class I renewable energy sources or hydropower facilities that have a nameplate capacity rating of not more than one hundred megawatts, that would achieve the goals in section 1 of this act in combination with programs established by the Public Utilities Regulatory Authority. If the Commissioner of Energy and Environmental Protection determines that procuring energy storage is cost effective, the commissioner shall proceed with the selection of proposals. In making this determination, the commissioner shall publish and make available for public comment a cost-effectiveness test that considers each applicable benefit provided by energy storage.

(b) In making any selection of such proposals, the commissioner shall consider factors, including, but not limited to, (1) whether the proposal is in the best interest of ratepayers, including, but not limited to, the delivered price of such sources, (2) whether the proposal promotes electric distribution system reliability, including during winter peak demand, (3) any positive impacts on the state's economic development, (4) whether the proposal is consistent with the requirements to reduce greenhouse gas emissions in accordance with section 22a-200a of the

Substitute Senate Bill No. 952

general statutes, and (5) whether the proposal is consistent with the policy goals outlined in the Comprehensive Energy Strategy adopted pursuant to section 16a-3d of the general statutes and the Integrated Resources Plan adopted pursuant to section 16a-3a of the general statutes. In considering whether a proposal has any positive impacts on the state's economic development, the Commissioner of Energy and Environmental Protection shall consult with the Commissioner of Economic and Community Development.

(c) Any agreement entered into pursuant to this section shall be subject to review and approval by the Public Utilities Regulatory Authority, which review shall be completed not later than one hundred twenty days after the date on which such agreement is filed with the authority. The authority shall approve any such agreement if it is cost effective and in the best interest of electric ratepayers. The net costs of any such agreement, including costs incurred by the electric distribution companies under the agreement and reasonable costs incurred by the electric distribution companies in connection with the agreement, shall be recovered through a fully reconciling component of electric rates for all customers of electric distribution companies. Any net revenues from the sale of products purchased in accordance with long-term contracts entered into pursuant to this section shall be credited to customers through the same fully reconciling rate component for all customers of the contracting electric distribution company.



House of Representatives

File No. 750

General Assembly

January Session, 2021

(Reprint of File No. 470)

Substitute House Bill No. 6441
As Amended by House Amendment
Schedule "A"

Approved by the Legislative Commissioner
May 27, 2021

AN ACT CONCERNING CLIMATE CHANGE ADAPTATION.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

1 Section 1. Section 22a-498 of the general statutes is repealed and the
2 following is substituted in lieu thereof (*Effective July 1, 2021*):

3 (a) Any municipality [selected by the commissioner to participate in
4 the pilot program established pursuant to section 22a-497] may, by
5 ordinance adopted by its legislative body, designate any existing board
6 or commission or establish a new board or commission as the
7 stormwater authority for such municipality. If a new board or
8 commission is created, such municipality shall, by ordinance, determine
9 the number of members thereof, their compensation, if any, whether
10 such members shall be elected or appointed, the method of their
11 appointment, if appointed, and removal and their terms of office, which
12 shall be so arranged that not more than one-half of such terms shall
13 expire within any one year.

14 (b) The purposes of the stormwater authority shall be to: (1) Develop
15 a stormwater management program, including, but not limited to, (A) a
16 program for construction and post-construction site stormwater runoff
17 control, including control detention and prevention of stormwater
18 runoff from development sites; or (B) a program for control and
19 abatement of stormwater pollution from existing land uses, and the
20 detection and elimination of connections to the stormwater system that
21 threaten the public health, welfare or the environment; (2) provide
22 public education and outreach in the municipality relating to
23 stormwater management activities and to establish procedures for
24 public participation; (3) provide for the administration of the
25 stormwater management program; (4) establish geographic boundaries
26 of the stormwater authority district; and (5) recommend to the
27 legislative body of the municipality in which such district is located the
28 imposition of a [levy] fee upon the [taxable] interests in real property
29 within such district, subject to the fifteen per cent limitation on, or
30 alternative election to exempt, properties owned by hospitals described
31 in subdivision (3) of subsection (c) of this section, the revenues from
32 which [may] shall be used in carrying out any of the powers of such
33 district. In accomplishing the purposes of this section, the stormwater
34 authority may plan, layout, acquire, construct, reconstruct, repair,
35 maintain, supervise and manage stormwater control systems.

36 (c) (1) Any stormwater authority created by a municipality pursuant
37 to subsection (a) of this section may levy fees, [from] approved by the
38 legislative body of the municipality in accordance with the provisions
39 of subdivision (3) of this subsection, on property owners of the
40 municipality, except as specified in subdivision (2) of this subsection,
41 for the purposes described in subsection (b) of this section. In
42 establishing fees for [any property] properties in its district, the
43 stormwater authority [may] shall consider criteria, including, but not
44 limited to, the following: The area of the property containing
45 impervious surfaces from which stormwater runoff is generated, land
46 use types that result in higher or lower concentrations of stormwater
47 pollution and the grand list valuation of the property. [The stormwater

48 authority may reduce or defer such fees for land classified as, or
49 consisting of, farm, forest or open space land.] In establishing fees for
50 property in its district, the stormwater authority shall offer partial fee
51 reduction, in the form of a credit for any property owner in its district
52 who has installed and is operating and maintaining current stormwater
53 best management practices that reduce, retain, or treat stormwater
54 onsite and that are approved by the stormwater authority.

55 (2) In the case of land classified as, and consisting of, farm, forest or
56 open space land, or property owned by the state government, or any of
57 its political subdivisions or respective agencies, the stormwater
58 authority may only levee such fees on areas of such land that contain
59 impervious surfaces from which stormwater discharges to a municipal
60 separate storm sewer system.

61 (3) Each stormwater authority shall present its budget annually to the
62 legislative body of the municipality for approval. Such budget shall
63 include the specific programs the authority proposes to undertake
64 during the fiscal year for which the budget is presented, the projected
65 expenditures for such programs for the fiscal year and the amount of the
66 fee or fees the authority proposes to levy to pay for such expenditures.
67 In no event shall the aggregate amount of the fees proposed for the fiscal
68 year exceed the aggregate amount of such projected expenditures for
69 the fiscal year and in no event shall more than fifteen per cent of the
70 aggregate amount of the fees proposed for any fiscal year prior to July
71 1, 2026, be generated from properties located in the municipality that
72 are owned by hospitals that are parties to the settlement agreement with
73 the state approved pursuant to special act 19-1 of the December 2019
74 special session. The legislative body of the municipality shall ensure that
75 the aggregate amount of the fees approved comply with such fifteen per
76 cent limitation. For each such fiscal year prior to July 1, 2026, the
77 authority shall, not later than thirty days after the conclusion of the fiscal
78 year, (A) conduct a review to ensure that not more than fifteen per cent
79 of the aggregate fees received for such fiscal year were generated from
80 real property located in the municipality that is owned by one or more
81 hospitals that are parties to the settlement agreement described in this

82 subdivision, (B) in the event that the fees received from all such
83 hospitals together exceed fifteen per cent of the aggregate fees received
84 for such fiscal year, the stormwater authority shall rebate any amounts
85 received in excess of fifteen per cent, proportionately, to such hospitals,
86 and (C) provide the results of the stormwater authority's review, in
87 writing to each hospital, regardless of whether a rebate is due. As an
88 alternative to imposing the fee on properties located in the municipality
89 that are owned by hospitals that are parties to such settlement
90 agreement described in this subdivision, the legislative body may
91 approve exemption of such properties from the fee until July 1, 2026.
92 The legislative body of the municipality may approve fee amounts that
93 are less than the amounts proposed by the authority but in no event shall
94 the legislative body of the municipality approve fee amounts that are
95 greater than the amounts proposed by the authority.

96 (d) Any person aggrieved by the action of a stormwater authority
97 under this section shall have the same rights and remedies for appeal
98 and relief as are provided in the general statutes for taxpayers claiming
99 to be aggrieved by the doings of the assessors or board of assessment
100 appeals.

101 [(d)] (e) The authority may adopt municipal regulations to implement
102 the stormwater management program.

103 [(e)] (f) The authority may, subject to the commissioner's approval,
104 enter into contracts with any municipal or regional entity to accomplish
105 the purposes of this section.

106 (g) For purposes of this section and sections 22a-498a and 22a-498b,
107 as amended by this act, "municipality" means any town, city, borough,
108 consolidated town and city or consolidated town or borough.
109 "Municipality" does not include any local school district, regional school
110 district, metropolitan district, district, as defined in section 7-324, or any
111 other municipal corporation or authority authorized to issue bonds,
112 notes or other obligations under the provisions of the general statutes or
113 any special act.

114 Sec. 2. Section 22a-498a of the general statutes is repealed and the
115 following is substituted in lieu thereof (*Effective July 1, 2021*):

116 A municipal stormwater authority created pursuant to section 22a-
117 498, as amended by this act, and located in a distressed municipality, as
118 defined in subsection (b) of section 32-9p, having a population of not
119 more than twenty-eight thousand shall constitute a body politic and
120 corporate and the ordinance establishing such authority may confer
121 upon such authority the following powers: (1) To sue and be sued; (2)
122 to acquire, hold and convey any estate, real or personal; (3) to contract;
123 (4) to borrow money, including by the issuance of bonds, provided the
124 issuance of such bonds is approved by the legislative body of the
125 municipality in which such authority district is located; (5) to
126 recommend to the legislative body of such municipality the imposition
127 of [a levy] fees upon the [taxable] interests in real property within such
128 authority district, subject to the fifteen per cent limitation on, or
129 alternative election to exempt, properties owned by hospitals described
130 in subdivision (3) of subsection (c) of section 22a-498, as amended by
131 this act, the revenues from which [may] shall be used in carrying out
132 any of the powers of such authority; (6) to deposit and expend funds;
133 and (7) to enter property to make surveys, soundings, borings and
134 examinations to accomplish the purposes of section 22a-498, as
135 amended by this act. Such stormwater authority and legislative body
136 shall comply with the procedures set forth in subsection (c) of section
137 22a-498, as amended by this act, concerning the fifteen per cent
138 limitation on fees imposed upon, and retrospective review and rebate
139 procedures for fees generated from, properties owned by hospitals
140 described in subdivision (3) of subsection (c) of said section except if
141 such legislative body approves exemption of such properties from the
142 fee until July 1, 2026.

143 Sec. 3. Section 22a-498b of the general statutes is repealed and the
144 following is substituted in lieu thereof (*Effective July 1, 2021*):

145 Any charge due to a municipal stormwater authority and any fee
146 levied pursuant to section 22a-498, as amended by this act, and not paid

147 [within] in full on or before thirty days [of] after the due date shall
148 thereupon be delinquent and shall bear interest from the due date at [the
149 rate charged by the municipality's tax collector for] such rates and in
150 such manner as provided for delinquent property taxes under section
151 12-146. Any such unpaid charge or fee, or portion thereof, shall
152 constitute a lien upon the [real estate] property against which such
153 charge or fee was levied from the date it became delinquent. Each such
154 lien may be continued, recorded and released in the manner provided
155 by the general statutes for continuing, recording and releasing property
156 tax liens.

157 Sec. 4. Section 25-84 of the general statutes is repealed and the
158 following is substituted in lieu thereof (*Effective July 1, 2021*):

159 (a) (1) Any municipality may, by vote of its legislative body, adopt
160 the provisions of this section and sections 25-85 to 25-94, inclusive, as
161 amended by this act, and exercise through a flood prevention, climate
162 resilience and erosion control board the powers granted thereunder. In
163 each town, except as otherwise provided by special act, the flood
164 prevention, climate resilience and erosion control board shall consist of
165 not less than five nor more than seven members, who shall be electors
166 of such town and whose method of selection and terms of office shall be
167 determined by local ordinance, except that in towns having a population
168 of less than fifty thousand the selectmen may be empowered by such
169 ordinance to act as such flood prevention, climate resilience and erosion
170 control board. In each city or borough, except as otherwise provided by
171 special act, the board of aldermen, council or other board or authority
172 having power to adopt ordinances for the government of such city or
173 borough may act as such flood prevention, climate resilience and
174 erosion control board. The flood prevention, climate resilience and
175 erosion control board of any town shall have jurisdiction over that part
176 of the town outside any city or borough contained therein.

177 (2) Two or more municipalities may, by concurrent votes of their
178 legislative bodies, enter into an agreement to jointly exercise through a
179 joint flood prevention, climate resilience and erosion control board the

180 powers granted under sections 25-85 to 25-94, inclusive, as amended by
181 this act. The joint flood prevention, climate resilience and erosion
182 control board shall have jurisdiction over each municipality subject to
183 such agreement.

184 (b) Any town, city or borough shall have the power to provide by
185 ordinance for the appointment or election of three alternate members to
186 its flood prevention, climate resilience and erosion control board. Such
187 alternate members shall, when seated as herein provided, have all the
188 powers and duties set forth for such board and its members. Such
189 alternate members shall be electors of such town, city or borough. If a
190 regular member of any of said board is absent or is disqualified, the
191 chairman of the board shall designate an alternate to so act, choosing
192 alternates in rotation so that they shall act as nearly equal a number of
193 times as possible. If any alternate is not available in accordance with
194 such rotation, such fact shall be recorded in the minutes of the meeting.

195 (c) Each flood prevention, climate resilience and erosion control
196 board shall publish a biannual report on the Internet web site of each
197 municipality under the jurisdiction of such board. Such report shall
198 include, but not be limited to, (1) a current inventory and description of
199 the flood prevention, climate resilience and erosion control system
200 managed by such board, (2) the extent and value of property,
201 infrastructure and natural resources protected by such system, (3) an
202 analysis of the manner in which vulnerable communities, as defined in
203 subsection (a) of section 16-243y, are prioritized and protected by such
204 system, and (4) the revenues and expenditures of such board.

205 Sec. 5. Section 25-85 of the general statutes is repealed and the
206 following is substituted in lieu thereof (*Effective July 1, 2021*):

207 (a) Such board shall have authority, within the limits of
208 appropriations from time to time made by the municipality or
209 municipalities, as applicable, to plan, lay out, acquire, construct,
210 reconstruct, repair, maintain, supervise, operate and manage a flood [or]
211 prevention, climate resilience and erosion control system. As used in

212 sections 25-84 to 25-94, inclusive, as amended by this act, ["flood or
213 erosion control system"] "flood prevention, climate resilience and
214 erosion control system" means any dike, berm, dam, piping, groin, jetty,
215 sea wall, embankment, revetment, tide-gate, water storage area, ditch,
216 drain or other structure or facility, and any nonstructural and nature-
217 based measure, including, but not limited to, removal, relocation or
218 modification of existing structures, restoration and maintenance of open
219 floodplain or other water storage area and any feasible, less
220 environmentally damaging alternative, as defined in section 22a-92, that
221 is useful in preventing or ameliorating damage from floods or erosion,
222 whether caused by fresh or salt water, [or] any dam forming a lake or
223 pond that benefits abutting properties or any open space reserved for
224 future accommodation or establishment of wetlands or watercourses,
225 and shall include any easements, rights-of-way and riparian rights
226 which may be required in furtherance of any such system.

227 (b) In planning for and conducting its activities, such board (1) shall
228 consider all applicable regional and municipal hazard mitigation plans,
229 resilience plans and identifications of vulnerable communities, as
230 defined in subsection (a) of section 16-243y, as well as all applicable
231 municipal plans of conservation and development adopted pursuant to
232 section 8-23, and (2) may consult with the Connecticut Institute for
233 Resilience and Climate Adaptation.

234 Sec. 6. Section 25-86 of the general statutes is repealed and the
235 following is substituted in lieu thereof (*Effective July 1, 2021*):

236 Such board is authorized to enter upon and to take and hold, by
237 purchase, condemnation or otherwise, any real property or interest
238 therein which it determines is necessary for use in connection with the
239 flood [or] prevention, climate resilience and erosion control system.
240 Whenever the board is unable to agree with the owner of any such
241 property as to the compensation to be paid for the taking thereof, the
242 board, in the name of the municipality, may bring condemnation
243 proceedings in accordance with the procedure provided by part I of
244 chapter 835 for condemnation by municipal corporations generally. In

245 such case, the court or judge may permit immediate possession of such
246 property by the board in accordance with the procedure provided by
247 said chapter.

248 Sec. 7. Section 25-87 of the general statutes is repealed and the
249 following is substituted in lieu thereof (*Effective July 1, 2021*):

250 At any time after voting to acquire, construct, [or] reconstruct,
251 operate or maintain any flood [or] prevention, climate resilience and
252 erosion control system or portion thereof, the board in its discretion may
253 elect to defray the cost thereof by issuing bonds or other evidences of
254 debt, [or] from general taxation, special assessment, federal, state or
255 private grant funds or any combination thereof or by drawing upon a
256 municipal Climate Change and Coastal Resiliency Reserve Fund created
257 pursuant to section 7-159d, as amended by this act. If it elects to defray
258 any part of such cost from special assessment, it may apportion and
259 assess such part upon the lands and buildings in the municipality
260 which, in its judgment, are especially benefited thereby, whether they
261 abut on such flood [or] prevention, climate resilience and erosion
262 control system or not, and upon the owners of such lands and buildings,
263 subject to the right of appeal as hereinafter provided. Such assessment
264 may include a proportionate share of any expenses incidental to the
265 completion of such flood [or] prevention, climate resilience and erosion
266 control system, such as fees and expenses of attorneys, engineers,
267 surveyors, superintendents or inspectors, the cost of any property
268 purchased or acquired for such work, interest on securities, the cost of
269 preparing maps, plans and specifications, the cost to reconstruct, repair,
270 maintain, supervise, operate and manage such system and the cost of
271 printing, publishing or serving advertisements or notices incidental
272 thereto. The board may divide the total territory to be benefited by any
273 flood [or] prevention, climate resilience and erosion control system into
274 sections and may levy assessments against the property benefited in
275 each section separately. In assessing benefits against the property in any
276 section, the board may add to the cost of the part of the flood [or]
277 prevention, climate resilience and erosion control system located in such
278 section a proportionate share of the cost of any part of such system

279 located outside the section which is useful for the operation or
280 effectiveness of that part of such system within the section and of any of
281 the other items of cost or expense above enumerated.

282 Sec. 8. Section 25-92 of the general statutes is repealed and the
283 following is substituted in lieu thereof (*Effective July 1, 2021*):

284 The proceeds of such assessments, whether or not pledged for the
285 payment of securities, shall be segregated from other funds of the
286 municipality and shall be used only to pay for the construction, [or]
287 reconstruction, repair, maintenance, supervision, operation or
288 management of the flood [or] prevention, climate resilience and erosion
289 control system or particular portion thereof in respect to which such
290 assessments are made or, as the case may be, for the payment of the
291 interest on or principal of any securities issued to pay for such system
292 or particular portion thereof.

293 Sec. 9. Section 25-94 of the general statutes is repealed and the
294 following is substituted in lieu thereof (*Effective July 1, 2021*):

295 Any flood prevention, climate resilience and erosion control board
296 established under section 25-84, any such board or commission
297 established by special act or any district having as one of its powers and
298 purposes the right to construct or maintain a flood prevention, climate
299 resilience and erosion control system under chapter 105, acting through
300 its officers, is authorized to negotiate, cooperate and enter into
301 agreements with (1) the United States, (2) the United States and the state
302 of Connecticut, [or] (3) the state of Connecticut, or (4) one or more
303 municipalities in the state of Connecticut, in order to satisfy the
304 conditions imposed by the United States or the state of Connecticut in
305 authorizing any system for the improvement of navigation of any
306 harbor or river and for [protection of property against damage by floods
307 or by erosion] constructing, reconstructing, operating or maintaining
308 any flood prevention, climate resilience and erosion control system,
309 provided such system shall have been approved by the Commissioner
310 of Energy and Environmental Protection.

311 Sec. 10. Section 25-95 of the general statutes is repealed and the
312 following is substituted in lieu thereof (*Effective July 1, 2021*):

313 The state, acting through the Commissioner of Energy and
314 Environmental Protection, may enter into agreements with such local
315 authority authorized to contract under section 25-94, as amended by this
316 act, for the purpose of constructing projects or systems to prevent,
317 correct and arrest [erosion and] flood damage and impacts of climate
318 change within the boundaries of the state. The plans, specifications,
319 system and construction shall be under the direct control and
320 supervision of the commissioner. The contract shall describe (1) the
321 nature and extent of the system, (2) the amount of the cost to the state,
322 (3) the share to be paid by the district or board, and (4) the method of
323 financing the payment by such local authority, all of which shall be
324 subject to the approval of the commissioner.

325 Sec. 11. Section 25-97 of the general statutes is repealed and the
326 following is substituted in lieu thereof (*Effective July 1, 2021*):

327 When any such improvement or protection project or system is
328 located within two or more municipalities, such municipalities, acting
329 by their individual or joint flood prevention, climate resilience and
330 erosion control boards, as applicable, are authorized to undertake
331 jointly any such action as is authorized by sections 25-94 and 25-95, as
332 amended by this act, and the cost to each board shall be determined by
333 [the Commissioner of Energy and Environmental Protection] mutual
334 agreement of the municipalities involved.

335 Sec. 12. Section 25-98 of the general statutes is repealed and the
336 following is substituted in lieu thereof (*Effective July 1, 2021*):

337 In carrying out the purposes for which it was established, any local
338 authority authorized to contract under section 25-94, as amended by this
339 act, may (1) accept, receive and expend gifts, devises or bequests of
340 money, lands or other properties to be applied and expended in the
341 manner provided herein, and (2) apply for and receive grants from state,
342 federal and private sources.

343 Sec. 13. Section 7-326 of the general statutes is repealed and the
344 following is substituted in lieu thereof (*Effective July 1, 2021*):

345 At such meeting, the voters may establish a district for any or all of
346 the following purposes: To extinguish fires, to light streets, to plant and
347 care for shade and ornamental trees, to construct and maintain roads,
348 sidewalks, crosswalks, drains and sewers, to appoint and employ
349 watchmen or police officers, to acquire, construct, maintain and regulate
350 the use of recreational facilities, to plan, lay out, acquire, construct,
351 reconstruct, repair, maintain, supervise and manage a flood [or]
352 prevention, climate resilience and erosion control system, to plan, lay
353 out, acquire, construct, maintain, operate and regulate the use of a
354 community water system, to collect garbage, ashes and all other refuse
355 matter in any portion of such district and provide for the disposal of
356 such matter, to implement tick control measures, to install highway
357 sound barriers, to maintain water quality in lakes that are located solely
358 in one town in this state, to establish a zoning commission and a zoning
359 board of appeals or a planning commission, or both, by adoption of
360 chapter 124 or chapter 126, excluding section 8-29, or both chapters, as
361 the case may be, which commissions or board shall be dissolved upon
362 adoption by the town of subdivision or zoning regulations by the town
363 planning or zoning commission, to adopt building regulations, which
364 regulations shall be superseded upon adoption by the town of building
365 regulations, and to provide ferry service. Any district may contract with
366 a town, city, borough or other district for carrying out any of the
367 purposes for which such district was established.

368 Sec. 14. Subsection (a) of section 7-328 of the general statutes is
369 repealed and the following is substituted in lieu thereof (*Effective July 1,*
370 *2021*):

371 (a) The territorial limits of the district shall constitute a separate
372 taxing district, and the assessor or assessors of the town shall separate
373 the property within the district from the other property in the town and
374 shall annually furnish the clerk of the district with a copy of the grand
375 list of all property in the district after it has been completed by the board

376 of assessment appeals of the town. If the legislative body of the town
377 elects, pursuant to section 12-62c, to defer all or any part of the amount
378 of the increase in the assessed value of real property in the year a
379 revaluation becomes effective and in any succeeding year in which such
380 deferment is allowed, the grand list furnished to the clerk of the district
381 for each such year shall reflect assessments based upon such deferment.
382 When the district meeting has fixed the tax rate, the clerk shall prepare
383 a rate bill, apportioning to each owner of property his proportionate
384 share of the taxes, which rate bill, when prepared, shall be delivered to
385 the treasurer; and the district and the treasurer thereof shall have the
386 same powers as towns and collectors of taxes to collect and enforce
387 payment of such taxes, and such taxes when laid shall be a lien upon the
388 property in the same manner as town taxes, and such liens may be
389 continued by certificates recorded in the land record office of the town,
390 and foreclosed in the same manner as liens for town taxes or enforced
391 in accordance with any provision of the general statutes for the
392 collection of property taxes. The assessor or board of assessment appeals
393 shall promptly forward to the clerk of the district any certificate of
394 correction or notice of any other lawful change to the grand list of the
395 district. The district clerk shall, within ten days of receipt of any such
396 certificate or notice, forward a copy thereof to the treasurer, and the
397 assessment of the property for which such certificate or notice was
398 issued and the rate bill related thereto shall be corrected accordingly. If
399 the district constructs any drain, sewer, sidewalk, curb or gutter, such
400 proportion of the cost thereof as such district determines may be
401 assessed by the board of directors, in the manner prescribed by such
402 district, upon the property specially benefited by such drain, sewer,
403 sidewalk, curb or gutter, and the balance of such costs shall be paid from
404 the general funds of the district. In the construction of any flood [or]
405 prevention, climate resilience and erosion control system, the cost to
406 such district may be assessed and shall be payable in accordance with
407 sections 25-87 to 25-93, inclusive, as amended by this act. The cost for
408 the maintenance of water quality in a lake shall be assessed on the land
409 in a district and payment shall be apportioned equally among the
410 owners of parcels of property. Subject to the provisions of the general

411 statutes, the district may issue bonds and the board of directors may
412 pledge the credit of the district for any money borrowed for the
413 construction of any public works or the acquisition of recreational
414 facilities authorized by sections 7-324 to 7-329, inclusive, and such board
415 shall keep a record of all notes, bonds and certificates of indebtedness
416 issued, disposed of or pledged by the district. All moneys received by
417 the directors on behalf of the district shall be paid to the treasurer. No
418 contract or obligation which involves an expenditure in the amount of
419 (1) ten thousand dollars or more in districts where the grand list is less
420 than or equal to twenty million dollars, or (2) twenty thousand dollars
421 or more in districts where the grand list is greater than twenty million
422 dollars, in any one year shall be made by the board of directors, unless
423 the same is specially authorized by a vote of the district, nor shall the
424 directors borrow money without like authority. The clerk of the district
425 shall give written notice to the treasurer of the town in which the district
426 is located of any final decision of the board of directors to borrow
427 money, not later than thirty days after the date of such decision. The
428 district may adopt ordinances, with penalties to secure their
429 enforcement, for the purpose of regulating the carrying out of the
430 provisions of sections 7-324 to 7-329, inclusive, and defining the duties
431 and compensation of its officers and the manner in which their duties
432 shall be carried out.

433 Sec. 15. Section 22a-113p of the general statutes is repealed and the
434 following is substituted in lieu thereof (*Effective July 1, 2021*):

435 The commission may review and make recommendations, consistent
436 with the plan, on any proposal affecting the real property on, in or
437 contiguous to the harbor that is received by any zoning commission,
438 planning commission or combined planning and zoning commission,
439 zoning board of appeals, historic district commissions, flood
440 prevention, climate resilience and erosion control board, harbor
441 improvement agency, port authority, redevelopment agency, shellfish
442 commission, sewer commission, water pollution control authority or
443 special district with zoning or other land use authority. Such agencies
444 shall send a copy of any such proposal to the commission upon the

445 request of such commission. The commission shall be notified of any
446 such proposal at least thirty-five days prior to the commencement of the
447 hearing thereon or where no hearing is held, at least thirty-five days
448 prior to the taking of any final action on the proposal. The local agency
449 authorized to act on the proposal shall consider the recommendations
450 of the commission. A two-thirds vote of all the members of the local
451 agency having authority to act on the proposal shall be required to
452 approve a proposal which has not received a favorable recommendation
453 from the commission, provided that the provisions of this section shall
454 not be deemed to alter the authority of the agency having primary
455 jurisdiction over the proposal to deny, modify or condition the proposal.
456 Failure of the commission to submit a recommendation shall be deemed
457 to be approval of the proposal.

458 Sec. 16. Subdivision (2) of subsection (e) of section 22a-361 of the
459 general statutes is repealed and the following is substituted in lieu
460 thereof (*Effective July 1, 2021*):

461 (2) The commissioner may require that any person, firm or
462 corporation, public, municipal or private, who removes sand, gravel or
463 other material lying waterward of the mean high water mark of the
464 tidal, coastal or navigable waters shall make available such sand, gravel
465 or other material of appropriate grain size and composition to any
466 coastal municipality or to any district established pursuant to chapter
467 105 or by special act to plan, lay out, acquire, construct, reconstruct,
468 repair, maintain, supervise and manage a flood [or] prevention, climate
469 resilience and erosion control system. Such sand, gravel or other
470 material shall be offered for the purposes of an appropriately authorized
471 beach nourishment or habitat restoration project and shall be available
472 (A) to municipalities for the cost of transporting such sand, gravel or
473 other material, and (B) to districts for a reasonable fee.

474 Sec. 17. Section 25-76 of the general statutes is repealed and the
475 following is substituted in lieu thereof (*Effective July 1, 2021*):

476 The Commissioner of Energy and Environmental Protection is

477 authorized to negotiate, cooperate and enter into agreements with the
478 federal government and with any municipality through its flood
479 prevention, climate resilience and erosion control board for the purpose
480 of constructing small flood control systems or tidal and hurricane
481 protection and navigation projects including dams, dikes, flood walls,
482 reservoirs, river channel improvements and such other works as are
483 necessary to reduce or prevent damages due to floods, including
484 projects constructed under the provisions of Title 33, Chapter 15, Section
485 701s, of the United States Code, as amended. The commissioner is
486 authorized to use nonstructural measures of flood control, including but
487 not limited to, acquisition of real property which the commissioner
488 determines is reasonably necessary for use in connection with such
489 systems or projects, by purchase, lease or gift or by condemnation in the
490 manner provided by part I of chapter 835. The commissioner is
491 authorized to give assurances to the federal government that the state
492 will hold and save the United States free from damages due to the
493 construction works and that the state will pay cash contributions as may
494 be required as a local contribution for any flood control system or
495 project undertaken by the federal government or by the state, subject to
496 reimbursement as provided in sections 25-71 and 25-72, except that, for
497 tidal and hurricane protection and navigation projects, such
498 reimbursement shall be not less than fifty per cent.

499 Sec. 18. Subsection (c) of section 7-159d of the general statutes is
500 repealed and the following is substituted in lieu thereof (*Effective July 1,*
501 *2021*):

502 (c) The budget-making authority of such municipality may, from time
503 to time, direct the treasurer to invest a portion of such Climate Change
504 and Coastal Resiliency Reserve Fund as in the opinion of such authority
505 is advisable, provided: (1) Not more than forty per cent, or with respect
506 to such a reserve fund for which the budget-making authority has
507 adopted an asset allocation and investment policy, fifty per cent, of the
508 total amount of such reserve fund shall be invested in equity securities,
509 and (2) any portion of such reserve fund not invested pursuant to
510 subdivision (1) of this subsection may be invested in: (A) Bonds or

511 obligations of, or guaranteed by, the state or the United States, or
512 agencies or instrumentalities of the United States, (B) certificates of
513 deposit, commercial paper, savings accounts and bank acceptances, (C)
514 the obligations of any state of the United States or any political
515 subdivision thereof or the obligations of any instrumentality, authority
516 or agency of any state or political subdivision thereof, if, at the time of
517 investment, such obligations are rated in the top rating categories of any
518 nationally recognized rating service or of any rating service recognized
519 by the Banking Commissioner, and applicable to such obligations, (D)
520 the obligations of any regional school district in this state, of any
521 municipality in this state or any metropolitan district in this state, if, at
522 the time of investment, such obligations of such government entity are
523 rated in one of the top two rating categories of any nationally recognized
524 rating service or of any rating service recognized by the Banking
525 Commissioner, and applicable to such obligations, (E) in any fund in
526 which a trustee may invest pursuant to section 36a-353, (F) investment
527 agreements with financial institutions whose long-term obligations are
528 rated in the top two rating categories of any nationally recognized rating
529 service or of any rating service recognized by the Banking
530 Commissioner or whose short-term obligations are rated in the top
531 rating category of any nationally recognized rating service or of any
532 rating service recognized by the Banking Commissioner, or (G)
533 investment agreements fully secured by obligations of, or guaranteed
534 by, the United States or agencies or instrumentalities of the United
535 States.

536 Sec. 19. Subsections (a) to (d), inclusive, of section 16-245n of the
537 general statutes are repealed and the following is substituted in lieu
538 thereof (*Effective July 1, 2021*):

539 (a) For purposes of this section: [, "clean energy"]

540 (1) "Carbon offsets" means any activity that compensates for the
541 emission of carbon dioxide or other greenhouse gases by providing for
542 an emission reduction elsewhere;

543 (2) "Clean energy" means solar photovoltaic energy, solar thermal,
544 geothermal energy, wind, ocean thermal energy, wave or tidal energy,
545 fuel cells, landfill gas, hydropower that meets the low-impact standards
546 of the Low-Impact Hydropower Institute, hydrogen production and
547 hydrogen conversion technologies, low emission advanced biomass
548 conversion technologies, alternative fuels, used for electricity
549 generation including ethanol, biodiesel or other fuel produced in
550 Connecticut and derived from agricultural produce, food waste or
551 waste vegetable oil, provided the Commissioner of Energy and
552 Environmental Protection determines that such fuels provide net
553 reductions in greenhouse gas emissions and fossil fuel consumption,
554 usable electricity from combined heat and power systems with waste
555 heat recovery systems, thermal storage systems, other energy resources
556 and emerging technologies which have significant potential for
557 commercialization and which do not involve the combustion of coal,
558 petroleum or petroleum products, municipal solid waste or nuclear
559 fission, financing of energy efficiency projects, projects that seek to
560 deploy electric, electric hybrid, natural gas or alternative fuel vehicles
561 and associated infrastructure, any related storage, distribution,
562 manufacturing technologies or facilities and any Class I renewable
563 energy source, as defined in section 16-1; [.]

564 (3) "Ecosystem services" means benefits obtained from ecosystems,
565 including, but not limited to, (A) provisioning services such as food and
566 water, (B) regulating services such as regulation of floods, drought, land
567 degradation and disease, and (C) supporting services such as soil
568 formation and nutrient cycling; and

569 (4) "Environmental infrastructure" means structures, facilities,
570 systems, services and improvement projects related to (A) water, (B)
571 waste and recycling, (C) climate adaptation and resiliency, (D)
572 agriculture, (E) land conservation, (F) parks and recreation, and (G)
573 environmental markets, including, but not limited to, carbon offsets and
574 ecosystem services.

575 (b) On and after July 1, 2004, the Public Utilities Regulatory Authority

576 shall assess or cause to be assessed a charge of not less than one mill per
577 kilowatt hour charged to each end use customer of electric services in
578 this state which shall be deposited into the Clean Energy Fund
579 established under subsection (c) of this section.

580 (c) (1) There is hereby created a Clean Energy Fund which shall be
581 within the Connecticut Green Bank. The fund may receive any amount
582 required by law to be deposited into the fund and may receive any
583 federal funds as may become available to the state for clean energy
584 investments. Upon authorization of the Connecticut Green Bank
585 established pursuant to subsection (d) of this section, any amount in said
586 fund may be used for expenditures that promote investment in clean
587 energy in accordance with a comprehensive plan developed by it to
588 foster the growth, development and commercialization of clean energy
589 sources, related enterprises and stimulate demand for clean energy and
590 deployment of clean energy sources that serve end use customers in this
591 state and for the further purpose of supporting operational
592 demonstration projects for advanced technologies that reduce energy
593 use from traditional sources. Such expenditures may include, but not be
594 limited to, providing low-cost financing and credit enhancement
595 mechanisms for clean energy projects and technologies, reimbursement
596 of the operating expenses, including administrative expenses incurred
597 by the Connecticut Green Bank [and Connecticut Innovations,
598 Incorporated,] and capital costs incurred by the Connecticut Green Bank
599 in connection with the operation of the fund, the implementation of the
600 plan developed pursuant to subsection (d) of this section or the other
601 permitted activities of the Connecticut Green Bank, disbursements from
602 the fund to develop and carry out the plan developed pursuant to
603 subsection (d) of this section, grants, direct or equity investments,
604 contracts or other actions which support research, development,
605 manufacture, commercialization, deployment and installation of clean
606 energy technologies, and actions which expand the expertise of
607 individuals, businesses and lending institutions with regard to clean
608 energy technologies.

609 (2) (A) There is hereby created an Environmental Infrastructure Fund

610 which shall be within the Connecticut Green Bank. The fund may
611 receive any amount required by law to be deposited into the fund and
612 may receive any federal funds as may become available to the state for
613 environmental infrastructure investments, except that the fund shall not
614 receive: (i) Ratepayer or Regional Greenhouse Gas Initiative funds, (ii)
615 funds that have been deposited in, or are required to be deposited in, an
616 account of the Clean Water Fund pursuant to sections 22a-475 to 22a-
617 438f, inclusive, or (iii) funds collected from a water company, as defined
618 in section 25-32a.

619 (B) Upon authorization of the Connecticut Green Bank established
620 pursuant to subsection (d) of this section, any amount in said fund may
621 be used for expenditures that promote investment in environmental
622 infrastructure in accordance with a comprehensive plan developed by it
623 to foster the growth, development, commercialization and, where
624 applicable, preservation of environmental infrastructure and related
625 enterprises, except any project or purpose eligible for funding pursuant
626 to sections 22a-475 to 22a-483f, inclusive. Such expenditures may
627 include, but not be limited to, providing low-cost financing and credit
628 enhancement mechanisms for projects and technologies,
629 reimbursement of the operating expenses, including administrative
630 expenses incurred by the Connecticut Green Bank, and capital costs
631 incurred by the Connecticut Green Bank in connection with the
632 operation of the fund, the implementation of the plan developed
633 pursuant to subsection (d) of this section or the other permitted activities
634 of the Connecticut Green Bank, disbursements from the fund to develop
635 and carry out the plan developed pursuant to subsection (d) of this
636 section, grants, direct or equity investments, contracts or other actions
637 which support research, development, manufacture,
638 commercialization, deployment and installation of environmental
639 infrastructure and actions which expand the expertise of individuals,
640 businesses and lending institutions with regard to environmental
641 infrastructure.

642 (d) (1) (A) The Connecticut Green Bank is hereby established and
643 created as a body politic and corporate, constituting a public

644 instrumentality and political subdivision of the state of Connecticut
645 established and created for the performance of an essential public and
646 governmental function. The Connecticut Green Bank shall not be
647 construed to be a department, institution or agency of the state.

648 (B) The Connecticut Green Bank shall (i) develop separate programs
649 to finance and otherwise support clean energy and environmental
650 infrastructure investment in residential, municipal, small business and
651 larger commercial projects and such others as the Connecticut Green
652 Bank may determine; (ii) support financing or other expenditures that
653 promote investment in clean energy sources and environmental
654 infrastructure in accordance with a comprehensive plan developed by it
655 to foster the growth, development and commercialization of clean
656 energy sources, environmental infrastructure and related enterprises;
657 and (iii) stimulate demand for clean energy and the deployment of clean
658 energy sources within the state that serve end use customers in the state.

659 (C) The Clean Energy Finance and Investment Authority shall
660 constitute a successor agency to Connecticut Innovations, Incorporated,
661 for the purposes of administering the Clean Energy Fund in accordance
662 with section 4-38d. The Connecticut Green Bank shall constitute a
663 successor agency to the Clean Energy Finance and Investment Authority
664 for purposes of administering the Clean Energy Fund in accordance
665 with section 4-38d. The Connecticut Green Bank shall have all the
666 privileges, immunities, tax exemptions and other exemptions of
667 Connecticut Innovations, Incorporated, with respect to said fund. The
668 Connecticut Green Bank shall administer the Environmental
669 Infrastructure Fund. The Connecticut Green Bank shall be subject to suit
670 and liability solely from the assets, revenues and resources of said bank
671 and without recourse to the general funds, revenues, resources or other
672 assets of Connecticut Innovations, Incorporated. The Connecticut Green
673 Bank may provide financial assistance in the form of grants, loans, loan
674 guarantees or debt and equity investments, as approved in accordance
675 with written procedures adopted pursuant to section 1-121. The
676 Connecticut Green Bank may assume or take title to any real property,
677 convey or dispose of its assets and pledge its revenues to secure any

678 borrowing, convey or dispose of its assets and pledge its revenues to
679 secure any borrowing, for the purpose of developing, acquiring,
680 constructing, refinancing, rehabilitating or improving its assets or
681 supporting its programs, provided each such borrowing or mortgage,
682 unless otherwise provided by the board or said bank, shall be a special
683 obligation of said bank, which obligation may be in the form of bonds,
684 bond anticipation notes or other obligations which evidence an
685 indebtedness to the extent permitted under this chapter to fund,
686 refinance and refund the same and provide for the rights of holders
687 thereof, and to secure the same by pledge of revenues, notes and
688 mortgages of others, and which shall be payable solely from the assets,
689 revenues and other resources of said bank and such bonds may be
690 secured by a special capital reserve fund contributed to by the state,
691 provided that any bond secured by such special capital reserve fund
692 shall have a maturity not exceeding twenty-five years. The Connecticut
693 Green Bank shall have the purposes as provided by resolution of said
694 bank's board of directors, which purposes shall be consistent with this
695 section. No further action is required for the establishment of the
696 Connecticut Green Bank, except the adoption of a resolution for said
697 bank.

698 (D) In addition to, and not in limitation of, any other power of the
699 Connecticut Green Bank set forth in this section or any other provision
700 of the general statutes, said bank shall have and may exercise the
701 following powers in furtherance of or in carrying out its purposes:

702 (i) To have perpetual succession as a body corporate and to adopt
703 bylaws, policies and procedures for the regulation of its affairs and the
704 conduct of its business;

705 (ii) To make and enter into all contracts and agreements that are
706 necessary or incidental to the conduct of its business;

707 (iii) To invest in, acquire, lease, purchase, own, manage, hold, sell and
708 dispose of real or personal property or any interest therein;

709 (iv) To borrow money or guarantee a return to investors or lenders;

710 (v) To hold patents, copyrights, trademarks, marketing rights,
711 licenses or other rights in intellectual property;

712 (vi) To employ such assistants, agents and employees as may be
713 necessary or desirable, who shall be exempt from the classified service
714 and shall not be employees, as defined in subsection (b) of section 5-270;
715 establish all necessary or appropriate personnel practices and policies,
716 including those relating to hiring, promotion, compensation and
717 retirement, and said bank shall not be an employer, as defined in
718 subsection (a) of section 5-270; and engage consultants, attorneys,
719 financial advisers, appraisers and other professional advisers as may be
720 necessary or desirable;

721 (vii) To invest any funds not needed for immediate use or
722 disbursement pursuant to investment policies adopted by said bank's
723 board of directors;

724 (viii) To procure insurance against any loss or liability with respect to
725 its property or business of such types, in such amounts and from such
726 insurers as it deems desirable;

727 (ix) To enter into joint ventures and invest in, and participate with
728 any person, including, without limitation, government entities and
729 private corporations, in the formation, ownership, management and
730 operation of business entities, including stock and nonstock
731 corporations, limited liability companies and general or limited
732 partnerships, formed to advance the purposes of said bank, provided
733 members of the board of directors or officers or employees of said bank
734 may serve as directors, members or officers of any such business entity,
735 and such service shall be deemed to be in the discharge of the duties or
736 within the scope of the employment of any such director, officer or
737 employee, as the case may be, so long as such director, officer or
738 employee does not receive any compensation or financial benefit as a
739 result of serving in such role;

740 (x) To enter into a memorandum of understanding or other
741 arrangements with Connecticut Innovations, Incorporated, with respect

742 to the provision or sharing of space, office systems or staff
743 administrative support, on such terms as may be agreed to between said
744 bank and Connecticut Innovations, Incorporated; and

745 (xi) To do all other acts and things necessary or convenient to carry
746 out the purposes of said bank.

747 (E) (i) The Connecticut Green Bank may form one or more
748 subsidiaries to carry out the purposes of said bank, as described in
749 subparagraph (B) of subdivision (1) of this subsection, and may transfer
750 to any such subsidiary any moneys and real or personal property of any
751 kind or nature. Any subsidiary may be organized as a stock or nonstock
752 corporation or a limited liability company. Each such subsidiary shall
753 have and may exercise such powers of said bank, as set forth in the
754 resolution of the board of directors of said bank prescribing the
755 purposes for which such subsidiary is formed, and such other powers
756 provided to it by law.

757 (ii) No such subsidiary of said bank shall be deemed a quasi-public
758 agency for purposes of chapter 12. [and no such subsidiary shall] No
759 such subsidiary of said bank shall have all the privileges, immunities,
760 tax exemptions and other exemptions of said bank, unless such
761 subsidiary is a single member limited liability company that is
762 disregarded as an entity separate from its owner. In no event shall any
763 such subsidiary have the power to hire or otherwise retain employees.
764 The governing documents of any such subsidiary shall provide for the
765 dissolution of such subsidiary upon the completion of the purpose for
766 which such subsidiary was formed. Each such subsidiary may sue and
767 shall be subject to suit, provided its liability shall be limited solely to the
768 assets, revenues and resources of the subsidiary and without recourse
769 to the general funds, revenues, resources or any other assets of said
770 bank. Each such subsidiary is authorized to assume or take title to
771 property subject to any existing lien, encumbrance or mortgage and to
772 mortgage, convey or dispose of its assets and pledge its revenues to
773 secure any borrowing, provided each such borrowing or mortgage shall
774 be a special obligation of the subsidiary, which obligation may be in the

775 form of bonds, bond anticipation notes and other obligations, to fund
776 and refund the same and provide for the rights of the holders thereof,
777 and to secure the same by a pledge of revenues, notes and other assets
778 and which shall be payable solely from the revenues, assets and other
779 resources of the subsidiary. The Connecticut Green Bank may assign to
780 a subsidiary any rights, moneys or other assets it has under any
781 governmental program. No subsidiary of said bank shall borrow
782 without the approval of the board of directors of said bank.

783 (iii) Each such subsidiary shall act through its board of directors or
784 managing members, at least one-half of which shall be members of the
785 board of directors of said bank or their designees or officers or
786 employees of said bank.

787 (iv) The provisions of section 1-125 and this subsection shall apply to
788 any officer, director, designee or employee appointed as a member,
789 director or officer of any such subsidiary. Any such person so appointed
790 shall not be personally liable for the debts, obligations or liabilities of
791 any such subsidiary as provided in section 1-125. The subsidiary shall,
792 and said bank may, save harmless and indemnify such officer, director,
793 designee or employee as provided by section 1-125.

794 (v) The Connecticut Green Bank, or such subsidiary, may take such
795 actions as are necessary to comply with the provisions of the Internal
796 Revenue Code of 1986, or any subsequent corresponding internal
797 revenue code of the United States, as amended from time to time, to
798 qualify and maintain any such subsidiary as a corporation exempt from
799 taxation under said code.

800 (vi) The Connecticut Green Bank may make loans to each such
801 subsidiary from its assets and the proceeds of its bonds, notes and other
802 obligations, provided the source and security for the repayment of such
803 loans is derived from the assets, revenues and resources of the
804 subsidiary.

805 (2) (A) The Connecticut Green Bank may seek to qualify as a
806 Community Development Financial Institution under Section 4702 of

807 the United States Code. If approved as a Community Development
808 Financial Institution, said bank would be treated as a qualified
809 community development entity for purposes of Section 45D and Section
810 1400N(m) of the Internal Revenue Code.

811 (B) Before making any loan, loan guarantee, or such other form of
812 financing support or risk management for a clean energy or
813 environmental infrastructure project, the Connecticut Green Bank shall
814 develop standards to govern the administration of said bank through
815 rules, policies and procedures that specify borrower eligibility, terms
816 and conditions of support, and other relevant criteria, standards or
817 procedures.

818 (C) Funding sources specifically authorized include, but are not
819 limited to:

820 (i) Funds repurposed from existing programs providing financing
821 support for clean energy projects, provided any transfer of funds from
822 such existing programs shall be subject to approval by the General
823 Assembly and shall be used for expenses of financing, grants and loans;

824 (ii) Any federal funds that can be used for the purposes specified in
825 subsection (c) of this section, provided such funds are not required to be
826 deposited in the accounts of the Clean Water Fund pursuant to sections
827 22a-475 to 22a-483f, inclusive;

828 (iii) Charitable gifts, grants, contributions as well as loans from
829 individuals, corporations, university endowments and philanthropic
830 foundations;

831 (iv) Earnings and interest derived from financing support activities
832 for clean energy and environmental infrastructure projects backed by
833 the Connecticut Green Bank;

834 (v) If and to the extent that the Connecticut Green Bank qualifies as a
835 Community Development Financial Institution under Section 4702 of
836 the United States Code, funding from the Community Development

837 Financial Institution Fund administered by the United States
838 Department of Treasury, as well as loans from and investments by
839 depository institutions seeking to comply with their obligations under
840 the United States Community Reinvestment Act of 1977; and

841 (vi) The Connecticut Green Bank may enter into contracts with
842 private sources to raise capital. The average rate of return on such debt
843 or equity shall be set by the board of directors of said bank.

844 (D) The Connecticut Green Bank may provide financing support
845 under this subsection if said bank determines that the amount to be
846 financed by said bank and other nonequity financing sources do not
847 exceed [eighty] one hundred per cent of the cost to develop and deploy
848 a clean energy project or [up to one hundred per cent of the cost of
849 financing an energy efficiency] an environmental infrastructure project.

850 (E) The Connecticut Green Bank may assess reasonable fees on its
851 financing activities to cover its reasonable costs and expenses, as
852 determined by the board.

853 (F) The Connecticut Green Bank shall make information regarding
854 the rates, terms and conditions for all of its financing support
855 transactions available to the public for inspection, including formal
856 annual reviews by both a private auditor conducted pursuant to
857 subdivision (2) of subsection (f) of this section and the Comptroller, and
858 providing details to the public on the Internet, provided public
859 disclosure shall be restricted for patentable ideas, trade secrets,
860 proprietary or confidential commercial or financial information,
861 disclosure of which may cause commercial harm to a nongovernmental
862 recipient of such financing support and for other information exempt
863 from public records disclosure pursuant to section 1-210.

864 (G) The Connecticut Green Bank shall not apply, directly or through
865 a subsidiary, to be eligible for grants under (i) the Clean Water Act, 33
866 USC 1251 et seq., as amended from time to time, without the approval
867 of the State Treasurer and the Commissioner of Energy and
868 Environmental Protection, or (ii) the Safe Drinking Water Act, 42 USC

869 300f et seq., as amended from time to time, without the approval of the
870 State Treasurer and the Commissioner of Public Health.

871 (3) No director, officer, employee or agent of the Connecticut Green
872 Bank, while acting within the scope of his or her authority, shall be
873 subject to any personal liability resulting from exercising or carrying out
874 any of the Connecticut Green Bank's purposes or powers.

875 Sec. 20. Subsection (f) of section 16-245n of the general statutes is
876 repealed and the following is substituted in lieu thereof (*Effective July 1,*
877 *2021*):

878 (f) (1) The board shall issue annually a report to the Department of
879 Energy and Environmental Protection reviewing the activities of the
880 Connecticut Green Bank in detail and shall provide a copy of such
881 report, in accordance with the provisions of section 11-4a, to the joint
882 standing committees of the General Assembly having cognizance of
883 matters relating to energy, the environment, banking and commerce.
884 The report shall include a description of the programs and activities
885 undertaken during the reporting period jointly or in collaboration with
886 the Conservation and Load Management Plan established pursuant to
887 section 16-245m.

888 (2) The Clean Energy Fund and the Environmental Infrastructure
889 Fund shall be audited annually. Such audits shall be conducted with
890 generally accepted auditing standards by independent certified public
891 accountants certified by the State Board of Accountancy. Such
892 accountants may be the accountants for the Connecticut Green Bank.

893 (3) Any entity that receives financing for a clean energy or
894 environmental infrastructure project from the [fund] Clean Energy
895 Fund or the Environmental Infrastructure Fund shall provide the board
896 an annual statement, certified as correct by the chief financial officer of
897 the recipient of such financing, setting forth all sources and uses of funds
898 in such detail as may be required by the bank for such project. The
899 Connecticut Green Bank shall maintain any such audits for not less than
900 five years. Residential projects for buildings with one to four dwelling

901 units are exempt from this and any other annual auditing requirements,
902 except that residential projects may be required to grant their utility
903 companies' permission to release their usage data to the Connecticut
904 Green Bank.

905 Sec. 21. Subdivision (1) of subsection (e) of section 16-245n of the
906 general statutes is repealed and the following is substituted in lieu
907 thereof (*Effective July 1, 2021*):

908 (e) (1) The powers of the Connecticut Green Bank shall be vested in
909 and exercised by a board of directors, which shall consist of [eleven]
910 twelve voting members and [two] one nonvoting [members] member
911 each with knowledge and expertise in matters related to the purpose
912 and activities of said bank appointed as follows: The Treasurer or the
913 Treasurer's designee, the Commissioner of Energy and Environmental
914 Protection or the commissioner's designee, [and] the Commissioner of
915 Economic and Community Development or the commissioner's
916 designee, and the Secretary of the Office of Policy and Management or
917 the secretary's designee, each serving ex officio, one member who shall
918 represent a residential or low-income group appointed by the speaker
919 of the House of Representatives for a term of four years, one member
920 who shall have experience in investment fund management appointed
921 by the minority leader of the House of Representatives for a term of
922 three years, one member who shall represent an environmental
923 organization appointed by the president pro tempore of the Senate for
924 a term of four years, and one member who shall have experience in the
925 finance or deployment of renewable energy appointed by the minority
926 leader of the Senate for a term of four years. Thereafter, such members
927 of the General Assembly shall appoint members of the board to succeed
928 such appointees whose terms expire and each member so appointed
929 shall hold office for a period of four years from the first day of July in
930 the year of his or her appointment. The Governor shall appoint four
931 members to the board as follows: Two for two years who shall have
932 experience in the finance of renewable energy; one for four years who
933 shall be a representative of a labor organization; and one for four years
934 who shall have experience in research and development or

935 manufacturing of clean energy. Thereafter, the Governor shall appoint
936 members of the board to succeed such appointees whose terms expire
937 and each member so appointed shall hold office for a period of four
938 years from the first day of July in the year of his or her appointment. The
939 president of the Connecticut Green Bank shall be elected by the
940 members of the board. The president of the Connecticut Green Bank
941 shall serve on the board in an ex-officio, nonvoting capacity. The
942 Governor shall appoint the chairperson of the board. The board shall
943 elect from its members a vice chairperson and such other officers as it
944 deems necessary and shall adopt such bylaws and procedures it deems
945 necessary to carry out its functions. The board may establish committees
946 and subcommittees as necessary to conduct its business.

947 Sec. 22. Subsection (g) of section 16-245mm of the general statutes is
948 repealed and the following is substituted in lieu thereof (*Effective July 1,*
949 *2021*):

950 (g) Notwithstanding any other provision contained in this section,
951 the aggregate amount of bonds secured by such special capital reserve
952 fund authorized to be created and established by this section shall not
953 exceed [one hundred] two hundred fifty million dollars.

954 Sec. 23. Subsection (c) of section 16-245kk of the general statutes is
955 repealed and the following is substituted in lieu thereof (*Effective July 1,*
956 *2021*):

957 (c) The bonds may be issued as serial bonds or as term bonds, or the
958 Connecticut Green Bank, in its discretion, may issue bonds of both
959 types. The bonds shall be authorized by resolution of the members of
960 the board of directors of said bank and shall bear such date or dates,
961 mature at such time or times, not exceeding [twenty] twenty-five years
962 for bonds issued for clean energy and fifty years for bonds issued for
963 environmental infrastructure from their respective dates and in each
964 case not to exceed the expected useful life of the underlying project or
965 projects, bear interest at such rate or rates, be payable at such time or
966 times, be in such denominations, be in such form, either coupon or

967 registered, carry such registration privileges, be executed in such
 968 manner, be payable in lawful money of the United States at such place
 969 or places, and be subject to such terms of redemption, as such resolution
 970 or resolutions may provide. The bonds or notes may be sold at public or
 971 private sale for such price or prices as said bank shall determine. The
 972 power to fix the date of sale of bonds, to receive bids or proposals, to
 973 award and sell bonds, and to take all other necessary action to sell and
 974 deliver bonds may be delegated to the chairperson or vice-chairperson
 975 of the board, a subcommittee of the board or other officers of said bank
 976 by resolution of the board. The exercise of such delegated powers may
 977 be made subject to the approval of a majority of the members of the
 978 board which approval may be given in the manner provided in the
 979 bylaws of said bank. Pending preparation of the definitive bonds, said
 980 bank may issue interim receipts or certificates which shall be exchanged
 981 for such definitive bonds.

This act shall take effect as follows and shall amend the following sections:		
Section 1	<i>July 1, 2021</i>	22a-498
Sec. 2	<i>July 1, 2021</i>	22a-498a
Sec. 3	<i>July 1, 2021</i>	22a-498b
Sec. 4	<i>July 1, 2021</i>	25-84
Sec. 5	<i>July 1, 2021</i>	25-85
Sec. 6	<i>July 1, 2021</i>	25-86
Sec. 7	<i>July 1, 2021</i>	25-87
Sec. 8	<i>July 1, 2021</i>	25-92
Sec. 9	<i>July 1, 2021</i>	25-94
Sec. 10	<i>July 1, 2021</i>	25-95
Sec. 11	<i>July 1, 2021</i>	25-97
Sec. 12	<i>July 1, 2021</i>	25-98
Sec. 13	<i>July 1, 2021</i>	7-326
Sec. 14	<i>July 1, 2021</i>	7-328(a)
Sec. 15	<i>July 1, 2021</i>	22a-113p
Sec. 16	<i>July 1, 2021</i>	22a-361(e)(2)
Sec. 17	<i>July 1, 2021</i>	25-76
Sec. 18	<i>July 1, 2021</i>	7-159d(c)
Sec. 19	<i>July 1, 2021</i>	16-245n(a) to (d)

Sec. 20	<i>July 1, 2021</i>	16-245n(f)
Sec. 21	<i>July 1, 2021</i>	16-245n(e)(1)
Sec. 22	<i>July 1, 2021</i>	16-245mm(g)
Sec. 23	<i>July 1, 2021</i>	16-245kk(c)

The following Fiscal Impact Statement and Bill Analysis are prepared for the benefit of the members of the General Assembly, solely for purposes of information, summarization and explanation and do not represent the intent of the General Assembly or either chamber thereof for any purpose. In general, fiscal impacts are based upon a variety of informational sources, including the analyst's professional knowledge. Whenever applicable, agency data is consulted as part of the analysis, however final products do not necessarily reflect an assessment from any specific department.

OFA Fiscal Note

State Impact:

Agency Affected	Fund-Effect	FY 22 \$	FY 23 \$
Treasurer, Debt Serv.	GF - Cost	See Below	See Below
Various State Agencies	Various - Cost	Potential Minimal	Potential Minimal

Note: GF=General Fund; Various=Various

Municipal Impact:

Municipalities	Effect	FY 22 \$	FY 23 \$
Various Municipalities	Cost/Savings	See Below	See Below

Explanation

The bill allows any municipality to establish a stormwater authority. It also expand these authorities' ability to assess fees, and establish a process for municipalities to approve fees.

In municipalities that establish stormwater authorities, the bill potentially shifts the cost of certain stormwater management projects to stormwater authorities. This results in a savings to those municipalities to the extent that they would have otherwise financed those projects. The bill also results in a cost to the state and municipalities as it requires authorities to assess fees on all property within their jurisdiction. Any state or town owned property located in a stormwater authority's jurisdiction would be subject to such fees, which would vary based on the size of the property.

The bill also expands the scope and authority of municipal flood and erosion control boards. This has no fiscal impact as the bill does not provide any new funding source for these boards or mandate any new

responsibilities for any municipality.

The bill expands the Connecticut Green Bank's authority to include the financing of environmental infrastructure projects and makes several changes to the Green Banks's bonding authority.

The bill increases the Green Banks's special capital reserve fund (SCRF) bond authorization from \$100 million to \$250 million. To the extent that additional bonds are issued, there is a potential minimal impact to the state's debt service going forward through the life of any bonds issued. As of November 2020, the Green Bank had outstanding SCRF-backed debt of \$27.4 million.¹

In order to issue SCRF-backed bonds, the Green Bank must get approval from the State Treasurer. The State Treasurer is not expected to approve the issuance of SCRF-backed bonds unless the Green Bank can show that it will be able to generate sufficient revenue from its activities to pay the debt service on the bonds and that the useful lifespan of the projects meets or exceeds the bond repayment duration.

The bill increases the allowable maturity date of the Green Bank's SCRF-backed bonds from twenty to twenty-five years. It also increases allowable maturity for non-SCRF-backed bonds from twenty to twenty-five years for clean energy projects and from twenty to fifty years for environmental infrastructure projects. To the extent that bonds with a longer term are issued, there is the potential for increased borrowing cost to the Green Bank associated with extended maturity dates. See background for more information.

These sections also establish an Environmental Infrastructure Fund that may contain funding from existing funding sources that the Bank already utilizes, such as bond funding, charitable gifts, and interest from financing activities. The administrative costs related to these provisions do not result in a fiscal impact.

¹ Source: January 2021 General Obligation Bonds Official Statement

Background

SCRF-backed bonds. SCRF-backed bonds are a contingent liability of the state.² The SCRF provides a higher level of repayment security, which results in a lower rate of interest on the bond issuance than the relevant market rate. In the event that the SCRF is drawn down in part or completely, a draw on the General Fund is authorized and the SCRF is fully restored. The draw on the General Fund is deemed to be appropriated and is not subject to the constitutional or statutory appropriations cap. If draws on a SCRF continue, the annual draws on the General Fund required to refill it also continue until the fund is replenished by the bond issuer or the underlying debt is repaid.

Extended maturities. Bonds are typically issued with maturities and debt service payment durations that match the expected useful life of the capital project being financed through the bonds. The state has typically kept maturities at or below 20 years, even when the useful life of projects may exceed the 20-year timeframe.

While bonds issued for longer terms typically have lower annual payments than those bonds issued for shorter terms, the amount of interest paid increases due to slower pay down of the principal balance and because financial markets typically require higher interest rates for longer issuances. An extended use of longer repayment durations may have a deleterious impact on the credit rating of the bonds being issued and/or the organization issuing such bonds. The slower repayment of principal may lead to either less funding being available for projects in the future or increasing debt levels for the life of the bonds.

House "A" eliminates a provision from the underlying bill allowing towns to implement a local real estate conveyance tax. This eliminates a revenue gain to municipalities of approximately \$75.1 million annually.

The Out Years

² Contingent liabilities do not count against the state's statutory limits on General Obligation bonding.

The annualized ongoing fiscal impact identified above would continue into the future subject to the establishment of municipal stormwater authorities, their responsibilities, and the fees they assess.

OLR Bill Analysis**sHB 6441 (as amended by House "A")******AN ACT CONCERNING CLIMATE CHANGE ADAPTATION.*****SUMMARY**

This bill authorizes all municipalities, rather than just certain ones, to establish a municipal stormwater authority. It expands the authorities' powers to assess fees and specifies the process by which municipal legislative bodies approve the fees (§§ 1-3). The bill (1) caps the fees collected on certain hospital-owned properties at 15% of the total fees and allows for the properties to be fully exempt until FY 27; (2) restricts the fees for farm, forest, or open space land, or property owned by state or local governments and their agencies, to impervious surfaces that discharge to a municipal separate storm sewer system; and (3) requires a partial fee reduction for property owners who use certain stormwater best management practices.

The bill broadens the authority of municipal flood and erosion control boards to include flood prevention and climate resilience and allows municipalities to enter into agreements to form joint boards (§§ 4-17).

Thirdly, the bill expands the Connecticut Green Bank's duties to include developing separate programs to finance and otherwise support environmental infrastructure and establishes an Environmental Infrastructure Fund within the Green Bank for this purpose (§§ 19-23).

With respect to the Green Bank, the bill increases, from \$100 million to \$250 million, the amount of bonds the Green Bank may issue that are backed by a special capital reserve fund (SCRF). SCRF-backed bonds are contingent liabilities of the state; if a SCRF is exhausted, the General

Fund automatically replenishes it, regardless of the state spending cap (§ 22).

The bill also makes minor, technical, and conforming changes.

*House Amendment "A" (1) eliminates a provision establishing a municipal option conveyance fee on real property sales; (2) limits to impervious surfaces on farm, forest, and open space land areas that may be subject to the stormwater fee; and (3) adds the stormwater fee provisions for hospital-owned property, property owned by the state or local governments or their agencies, and property owners who use onsite stormwater best management practices.

EFFECTIVE DATE: July 1, 2021

§§ 1-3 — MUNICIPAL STORMWATER AUTHORITIES

Eligible Municipalities

This bill authorizes all municipalities to establish a municipal stormwater authority, rather than just the three municipalities (New Haven, New London, and Norwalk) that participated in the Department of Energy and Environmental Protection's (DEEP) municipal stormwater authority pilot program (authorized under PA 07-154).

The bill applies to any town, city, borough, consolidated town and city, or consolidated town or borough. It does not apply to local or regional school districts; municipal fire, sewer, fire and sewer, lighting, village, beach, improvement association, or other districts or associations wholly within a town that have the power to levy taxes; metropolitan districts; or other municipal corporations or authorities that may issue bonds, notes, or other obligations.

Fee Assessment

Under current law, stormwater authorities created under the pilot program must, among other things, recommend to the municipality's legislative body a levy on taxable real property in the stormwater district. The bill instead requires stormwater authorities to recommend a fee to be imposed on all real property in the district except as described

below. The bill explicitly requires, rather than authorizes, the authorities to use the revenue generated to carry out any of the district's powers. It makes conforming changes to an existing provision about a stormwater authority created under the DEEP pilot program and located in a distressed municipality with a population of 28,000 or fewer (i.e., New London).

Under the bill, each stormwater authority must present its budget annually to the municipality's legislative body for approval. The budget must include (1) the specific programs the authority proposes to undertake during the fiscal year, (2) its projected expenditures for the programs, and (3) the fee amount it proposes to levy to pay for the expenditures.

The total fees proposed for the fiscal year may not exceed the total projected expenditures. Under the bill, the legislative body may approve fee amounts that are less than the authority's proposed amounts. In setting fees, the bill requires, rather than allows, authorities to consider (1) the amount of impervious surface generating stormwater runoff, (2) land use types that result in higher concentrations of stormwater pollution, and (3) the property's grand list valuation. The bill additionally requires them to consider land use types that result in lower concentrations of stormwater pollution.

The bill also caps at 15% the amount of the total fees that may be generated from properties owned by hospitals that are parties to the settlement agreement approved by Special Act 19-1, December Special Session (see *Fee Limitations and Restrictions*, below).

Fee Limitations and Restrictions

Hospital-Owned Properties. The bill caps at 15% the amount of the total stormwater authority fees that may be generated from properties owned by hospitals that are parties to the settlement agreement approved by Special Act 19-1, December Special Session, concerning certain hospital fees and payments. The cap applies until FY 27 and a municipality's legislative body is responsible for ensuring that the

approved fees does not exceed the cap. The bill also enables a municipality to fully exempt the hospital properties from the fee until FY 27.

Under the bill, a municipal stormwater authority must, within 30 days after the end of each fiscal year, conduct a review to ensure that not more than 15% of the total collected fees were generated from real property of the covered hospitals in the municipality. If the fees exceed the cap, the bill requires the authority to rebate the excess fees proportionally to the hospitals. Regardless, the stormwater authority must provide the results of its review, in writing, to each hospital.

Farm, Forest, or Open Space Land and Government or Agency Properties. Current law authorizes the authorities to reduce or defer stormwater fees for land classified as, or consisting of, farm, forest, or open space. The bill reduces the area of these lands that may be subject to the fee by limiting it to areas with impervious surfaces from which stormwater discharges to a municipal separate storm sewer system.

The bill also applies this limitation to properties owned by the state or local governments, or their respective agencies.

On-site Stormwater Best Management Practices. The bill also requires a stormwater authority to offer a partial fee reduction, as a credit, for property owners in its district who have installed and are operating and maintaining current stormwater best management practices that the authority approves and reduce, retain, or treat stormwater onsite.

Delinquent Fees

Under the bill, fees that are not paid in full on or before 30 days after they are due are subject to the same interest rate as delinquent property taxes (i.e., 1.5% per month). Unpaid fees and interest are a lien on the property owner's real or personal property on which the fee was levied and may be recorded and released just like property tax liens.

Under the bill, someone aggrieved by an authority's action has the

same rights and remedies for appeal and relief as the law provides for property taxpayers aggrieved by an assessor's or a board of assessment appeal's action.

§§ 4-17 — FLOOD PREVENTION, CLIMATE RESILIENCE, AND EROSION CONTROL BOARDS

Scope of Authority

Current law authorizes municipalities to (1) establish a flood and erosion control board to prevent potential hazards from flooding, stream bank erosion, or beach erosion and (2) establish a separate taxing district for these purposes. These boards may plan, acquire, construct, repair, maintain, and manage a system, which may include such things as dikes, dams, piping, sea walls, jetties, tide-gates, water storage areas, or other structures or facilities.

The bill (1) increases the scope of these boards to include flood prevention and climate resilience; (2) allows them to also operate the systems; and (3) includes nonstructural and nature-based measures (e.g., altering or removing existing structures, maintaining open floodplain, and other less environmentally damaging alternatives) and open space for future accommodations or to establish wetlands or watercourses, as part of the system. It correspondingly renames these boards "flood prevention, climate resilience and erosion control boards."

The bill extends to the boards' broader scope of authority existing law's authorizations related to entering and taking property; issuing bonds; and taxing or assessing property owners, among other things.

The bill allows the boards to (1) apply for and use public or private grant funding; (2) draw upon a municipal Climate Change and Coastal Resilience Reserve Fund; and (3) additionally enter into contracts with municipalities to further the boards' purposes when related to navigation improvement projects, instead of only with the state and the federal government. The boards may also enter into agreements with the DEEP commissioner to construct projects or systems to prevent

climate change impacts, as the current boards may do for their purposes.

Joint Boards

The bill allows municipalities to enter into agreements to have joint boards, but they must be approved by concurrent votes of the municipalities' legislative bodies. A joint board has authority over each municipality that is a party to the agreement.

Biannual Report

The bill establishes a biannual reporting requirement for flood prevention, climate resilience, and erosion control boards. The report must be published on the website of each municipality that is subject to the board's authority. The report must include the following:

1. an inventory and description of the flood prevention, climate resilience, and erosion control system the board manages;
2. the extent and value of property, infrastructure, and natural resources the system protects;
3. an analysis of how the system prioritizes and protects vulnerable communities, which are populations that may be disproportionately affected by climate change; and
4. the board's revenue and expenses.

Other Provisions

The bill requires the boards to consider regional and municipal hazard mitigation plans, resilience plans, identified vulnerable communities, and municipal conservation and development plans when planning for and doing their work. It also allows the boards to consult with the Connecticut Institute for Resilience and Climate Adaption for this purpose.

§§ 19-23 — CONNECTICUT GREEN BANK

Environmental Infrastructure

Green Bank Authority. The Green Bank's current duties include

developing programs for, and promoting investment in, clean energy. The bill expands the Green Bank's duties to include (1) developing separate programs to finance and otherwise support environmental infrastructure and (2) promoting investment in the infrastructure.

By law, the Green Bank has standards governing its administration, including rules, policies, and procedures for such things as borrower eligibility, terms, and conditions. The law required these standards to be in place before the bank financially supported clean energy projects and the bill extends this requirement to environmental infrastructure projects. The bill applies existing requirements for clean energy funding to environmental infrastructure projects (e.g., fees, several funding sources).

Project Types. The bill expands the types of projects the Green Bank can promote investment in to include environmental infrastructure, which, under the bill, is structures, facilities, systems, services, and improvement projects related to water, waste and recycling, climate adaptation and resiliency, agriculture, land conservation, parks and recreation, and environmental markets such as carbon offsets and ecosystem services.

Under the bill, "carbon offsets" are an activity that compensates for greenhouse gas (GHG) emissions through an emission reduction. "Ecosystem services" are ecosystem benefits such as (1) provisioning services (e.g., food and water), (2) regulating services (e.g., regulating floods, drought, land degradation, and disease), and (3) supporting services (e.g., soil formation and nutrient cycling).

Environmental Infrastructure Fund Purpose. The bill requires the Green Bank's comprehensive plan to include growth, development, commercialization, and, where applicable, preservation of environmental infrastructure and related enterprises. Current law requires similar planning for clean energy purposes. The bill allows the bank to use the Environmental Infrastructure Fund to pay for expenses to promote environmental infrastructure investment, but not projects

eligible for Clean Water Fund funding.

The bill allows an environmental infrastructure project to receive financing support from the Green Bank if the bank determines that the amount it and other nonequity financing sources provide does not exceed 100% of the project's cost.

As it does under existing law for clean energy, the bill requires the Green Bank to (1) develop separate programs to finance and support environmental infrastructure investment in residential, municipal, small business, and larger commercial projects, and others the Green Bank determines and (2) support financing or other expenses that promote environmental infrastructure investment, which must be done according to its comprehensive plan.

The expenses may include costs related to such things as:

1. low-cost financing and credit enhancement mechanisms for projects and technologies;
2. grants;
3. contracts or other actions to support research, development, manufacture, commercialization, deployment, and installation of environmental infrastructure;
4. actions to expand the expertise of individuals, businesses, and lending institutions regarding environmental infrastructure;
5. direct or equity investments;
6. reimbursements of operating expenses; and
7. disbursements to develop and carry out the Green Bank's comprehensive plan.

Under the bill, operating expenses may include the Green Bank's (1) administrative expenses, (2) capital costs related to fund operation, (3)

plan implementation, and (4) other permitted activities.

Funding Sources. The bill's expansion of the Green Bank's duties enables the bank to use its existing bonding authority to provide financing for environmental infrastructure projects (see *Bonding*, below). As is available under existing law for clean energy projects, similar funding sources are available for financing environmental infrastructure, including such things as:

1. charitable gifts, grants, contributions, and loans from individuals, corporations, university endowments, and philanthropic foundations;
2. earnings and interest from financing support activities backed by the Green Bank; and
3. private sources, pursuant to contract.

The bill also allows the fund to receive any (1) amount required by law to be deposited into the fund and (2) federal funds that may become available to the state for environmental infrastructure investments. But it explicitly prohibits from being deposited into the fund: (1) ratepayer or Regional Greenhouse Gas Initiative funds that under existing law are used for clean energy projects, (2) funds in the state's Clean Water Fund account or that must be deposited into the account, and (3) funds collected from water companies.

The bill also prohibits the Green Bank from applying for federal clean water or safe drinking water grants without approval from the state treasurer and the DEEP or public health commissioners, respectively.

Audits and Certified Statements. The bill requires the Environmental Infrastructure Fund, like the existing Clean Energy Fund, to be annually audited. Entities receiving environmental infrastructure project funding, unless exempt under existing law (i.e., certain residential projects), must provide annual certified statements to the Green Bank's Board of Directors.

Other Provisions

Board Membership. The bill adds the Office of Policy and Management secretary, or her designee, as a voting member of the Green Bank's Board of Directors.

Bonding. The bill limits the term of bonds secured by the Green Bank's SCRF to 25 years. The bill generally (1) increases, from 20 to 25 years, the maximum term of bonds issued for clean energy projects and (2) sets the maximum term of bonds issued for environmental infrastructure projects at 50 years. But in neither case can the bond's maturity date exceed an underlying project's expected useful life.

Funding Qualification. The bill allows any eligible project, including environmental infrastructure projects (see above), to receive financing support from the Green Bank if the bank determines that the amount it and other nonequity financing sources provide does not exceed 100% of the project's cost. Current law restricts funding for clean energy projects to those for which the Green Bank and other nonequity sources provide no more than 80% of the cost.

Quasi-Public Subsidiaries. Current law prohibits Green Bank subsidiaries from being deemed quasi-public agencies with the bank's privileges, immunities, and tax and other exemptions. The bill creates an exception from this prohibition for single member limited liability companies (LLCs) that are disregarded as entities separate from their owner.

Reporting. The bill adds the Banking and Environment committees to the legislative committees to which the Green Bank's board must submit its annual activity report, instead of only the Energy and Technology and Commerce committees.

BACKGROUND

Related Bills

sSB 971 (File 559), favorably reported by the Planning and Development Committee, authorizes municipalities to invest their

Climate Change and Coastal Resiliency Reserve Funds in any trust fund administered, held, or invested by the state treasurer.

HB 6497 (File 205), favorably reported by the Environment Committee, also authorizes all municipalities to have a stormwater authority, but limits the available fee exemptions to pervious farm, forest, or open space land.

COMMITTEE ACTION

Environment Committee

Joint Favorable Substitute

Yea 21 Nay 11 (03/29/2021)



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