Energy Efficiency Board 2023 Programs and Operations Report

MARCH 1, 2024

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Narratives of Services and Incentives

Town of New Milford, Connecticut

Located in picturesque Litchfield County, the Town of New Milford recently implemented major energy efficiency upgrades to 12 community buildings. Multiple efficiency improvements were made at five schools, New Milford Town Hall, John Pettibone Community Center, Paul S. Richmond Citizen Center, and the Department of Public Safety. New Milford's participation in Energy Opportunities, an Energize Connecticut℠ program to help retrofit commercial and municipal buildings, resulted in the town saving about 1.25 million kilowatt-hours of power annually—the equivalent of nearly 900 metric tons of carbon dioxide or driving more than two million miles in a gas-powered car. High efficiency LED lighting and controls were installed, as well as updated ventilation, transformers, boilers, insulation, solar panels, and low-flow faucet aerators.

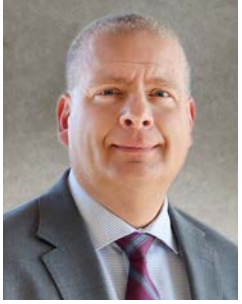
"We took a comprehensive approach with all of our town buildings," said ***New Milford Mayor Pete Bass.*** *"The upgrades that were done across our town breathe new life into these buildings, allowing them to operate more efficiently for years to come and providing us with significant savings."*

Orange Congregational Church, Orange, Connecticut

Since 1810, the simple white building of the Orange Congregational Church has served as the geographic center and heart of the community providing space for religious services, ministries, and community meetings. In June 2023, church leaders approved a project to make the building more energy efficient through the Small Business Energy Advantage program. Energy-saving improvements included the installation of smart thermostats and LED lighting and sensors. These measures provide brighter, more high efficiency lighting as well as a more comfortable environment for parishioners and staff. These improvements will save Orange Congregational Church more than $1,000 a year on its annual electric and natural gas bills.

"2023 has been a successful year for the Conservation and Load Management programs, with great levels of program demand experienced from both the residential and commercial and industrial sectors "

Chair Letter



On behalf of the Connecticut Energy Efficiency Board (the Board), we are honored to deliver the 2023 Programs and Operations Report to the Connecticut General Assembly. Our report reflects on this past year's achievements in equity, decarbonization, and energy affordability— the three priorities of the 2022-2024 Conservation and Load Management Plan (C&LM Plan). Our C&LM programs, delivered under the Energize Connecticut℠ initiative, remain the most cost-effective policy tool to protect the environment, promote economic development, and provide energy security.

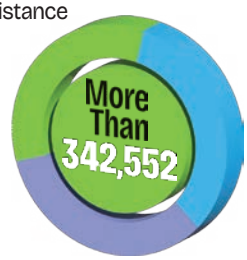
2023 has been a successful year for the C&LM programs, with great levels of program demand experienced from both the residential and commercial and industrial (C&I) sectors. Eversource and United Illuminating, Southern Connecticut Gas, and Connecticut Natural Gas, subsidiaries of AVANGRID, Inc. (the Companies) implemented emission-reduction strategies through the weatherization of 42,243 residences, construction of 1,954 energy-efficient homes, units, and buildings, installation of 18,604 heat pumps, and implementation of sustainable operations in 145 businesses in the Business & Energy Sustainability offerings.

Energy-saving programs generated

This success is due to the collaboration between the Companies, the Department of Energy and Environmental Protection (DEEP), the workforce, public and private stakeholders, and the Connecticut Green Bank (Green Bank). We specifically want to recognize and celebrate the significant contributions that the highly skilled workforce of 34,106 energy efficiency professionals have made to the Connecticut efficiency landscape.[1] We look forward to continuing our partnership in increasing efficiency and decreasing the state's carbon footprint.

As a result of the increased demand and deeper investment measures, the C&LM programs faced challenges in 2023 with limited budgets. Since 2013, the budget levels have generally been static. During that same time, project costs increased as measures shifted from a focus on lighting to heat pumps and weatherization, program participation increased, inflation reduced the impact of C&LM investments, and electricity sales decreased, resulting in reduced funding for the C&LM programs. We acknowledge the delicate balancing act needed to achieve the policy goals of decarbonization and reducing customers' energy bills. The Board will continue to work with the various parties to adapt the programs to overcome these challenges but notes that current funding levels are not enough to meet statutory energy savings goals or to keep pace with demand, which is impacting the state's energy workforce and customer access to incentives.

Over the past year, the Board has been coordinating with DEEP on several initiatives. DEEP secured an additional $19.7 million in one-time funding for the C&LM programs through increased Regional Greenhouse Gas Initiative funds and, in a joint effort with the Office of Consumer Counsel, secured the Public Utilities Regulatory Authority's approval to allocate a penalty payment associated with the Park City Wind contract termination. A notable advancement has been an effort to coordinate the Home Energy Solutions – Income Eligible program with the Connecticut Weatherization Assistance Program. The Board is working with DEEP to ensure the Inflation Reduction Act (IRA) rebates and tax credit requirements are in line with the C&LM program offerings to further customers' electrification efforts. Looking ahead to 2024, the Companies will explore leveraging funding and coordinating eligibility with the Connecticut Weatherization Assistance Program and providing support for IRA tax credits and the roll out of IRA rebates.



instances of participation

The Board continued to work with its diversity, equity, and inclusion (DEI) consultant to ensure fair and equitable access to energy efficiency and decarbonization. The DEI consultant guided the enhancement of performance management incentives related to equity but requires additional data before updated metrics can be identified. Therefore, the Companies will make enhancements to their databases to allow for the tracking of appropriate equity indicators. That work will inform other initiatives throughout the state related to environmental justice and equity and lead to updated C&LM equity metrics for 2025 and beyond.

Heading into 2024, the Board will work with its DEI consultant to develop an equity framework. In addition, the Board will continue to incorporate equitable and transparent meeting and feedback processes by working with DEEP, stakeholders, vendors, and the public as we adopt best practices.

These savings eliminated the need for a

In 2023, we welcomed one new Board member, who brought fresh perspectives to our decision-making process and elected a new chair. Our purpose and information on our Board members are detailed on the back cover. We appreciated the insightful public input at Board meetings and technical sessions and look forward to continued discourse in 2024 as we develop the 2025-2027 three-year plan.

As you read this report, the Board has already started to work on carrying our momentum forward into 2024. Our climate-forward framework will promote energy affordability, equity, and decarbonization.

Anthony Kosior
Chairperson
Yale University
2 Whitney Avenue
New Haven, CT 06510

John Viglione
Vice Chairperson
State of Connecticut
Ten Franklin Square
New Britain, CT 06051

1 The 2022 CT Clean Industry Energy Report reflects 2021 data.

Executive Summary

For more than two decades, Connecticut has been a leader in advancing energy efficiency and addressing climate change. The state's C&LM programs are the most cost-effective policy tool to lower energy costs for consumers, provide energy security and reliability, and reduce greenhouse gas emissions and air pollutants, resulting in improved public health and protecting the environment.

Energy Affordability

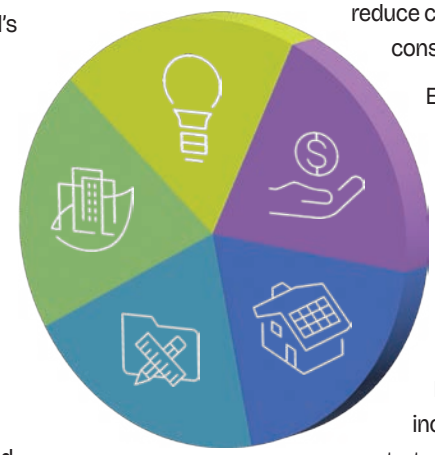
Inflation and rising energy costs are major economic concerns for the state's residents, businesses, and municipalities. Energy efficiency helps lower energy bills, reduce maintenance costs, and improve business productivity. In 2023, the Board and Companies focused on prioritizing deep energy-saving measures, such as high efficiency heating and cooling systems, building controls, insulation, air sealing, duct sealing, and energy-efficient commercial kitchen and lab equipment.

An indication of energy affordability is a household's energy burden—the percentage of household income spent on energy bills. The Department of Energy's (DOE) Low-Income Energy Affordability Data (LEAD) Tool estimates the average energy burden in Connecticut is three percent with some counties as high as four percent.[1] As energy burden is disproportionately higher for low-income households, the Companies target outreach to residential customers in arrears and/or enrolled in hardship programs.

Officially launched in 2023, DEEP's Residential Energy Preparation Services program, administered by the International Center for Appropriate and Sustainable Technology, addresses low-income households with barriers to weatherization, such as mold, asbestos, and knob-and-tube wiring. These health and safety barriers prevent the weatherization of low-income residents' homes—a longstanding issue. The program remediated and referred 23 units to Home Energy Solutions—Income Eligible and 16 units to Connecticut Weatherization Assistance Program.[2] An additional 84 projects were in progress at the end of 2023.

selected for Round 2 of the Community Partnership Initiative

Addressing barriered homes allows customers to participate in C&LM programs and save energy, which will help meet the state's goal of weatherizing 80 percent of its housing stock by 2030.



The C&LM programs also prioritize making energy affordable for businesses and municipalities across the state. In 2023, to increase small and microbusiness participation in the C&LM programs, the Community Partnership Initiative supported several outreach campaigns to small businesses across the state, including in Branford and New Haven. Businesses received no-cost energy assessments to determine energy-saving opportunities that would help them save money.

energy efficiency workers supported by clean energy investment[3]

Decarbonization

Fossil fuel combustion in residential and commercial buildings accounts for 30 percent of Connecticut's economy-wide carbon emissions.[4] Building decarbonization is the concept to design new construction and retrofit existing buildings so they significantly reduce carbon emissions in their operations and construction materials.

Energy efficiency is critical to the decarbonization of buildings. Key decarbonization strategies include making efficiency improvements in buildings, appliances, and equipment, use of clean electricity supply resources, integrated demand side management and flexibility, and the substitution of fossil-fuel-reliant equipment with renewable thermal technologies.

In 2023, the C&LM programs experienced an increase in customer demand for decarbonization strategies driven by a robust design for heat pumps and rebates, the build out of the Energize CT Heat Pump Installer Network, customer-facing tools, and heat pump training programs for contractors. These strategies will help meet the Global Warming Solutions Act's target emission reduction goals, requiring Connecticut to reduce the level of economy-wide greenhouse gas emissions 80 percent below 2001 levels by 2050.

Equity

A clean and efficient energy future must be delivered in an equitable and inclusive manner. High energy burdens and the negative impacts of climate change and air pollution disproportionately affect Connecticut's most vulnerable communities.

Throughout 2023, the Board continued to work with its DEI consultant to define equity outcomes and priority populations using community and geographic-level identifiers (distressed municipalities, communities of color, and environmental justice communities) and individual-level identifiers (low-income households, renters, small and microbusinesses, multi-unit dwellings). These efforts are critical in prioritizing equity in energy efficiency.

1 DOE Tool. Data available at: https://www.energy.gov/scep/slsc/ lead-tool

2 December 2023 Residential Energy Preparation Services update to Board. Data available at: https://energizect.com/eeb-meetings

3 The 2022 Clean Energy Industry Report reflects 2021 data.

4 DEEP, 1990-2021 Connecticut Greenhouse Gas Emissions Report

through Energize CT loans and financing programs[1]

Through the Community Partnership Initiative, program resources were directed to local groups, municipalities, and nonprofits to increase participation in residential and small business programs. Round 2 of the Community Partnership Initiative resulted in the selection of 18 approved outreach projects located in communities across our state. Many of these projects will get underway in 2024 and the Board looks forward to the results of this community engagement.

National Recognition

In March 2023, the Companies were recognized with the Environmental Protection Agency's (EPA) 2023 ENERGY STAR® Partner of the Year Sustained Excellence Award for using ENERGY STAR Portfolio Manager® to identify energy-saving opportunities for commercial customers in 16 Retro-commissioning program projects, introducing a final DOE Home Energy Score™ to customers who complete efficiency upgrades, and installing 210 air source heat pumps through a pilot program.

The award also recognized the 500+ ENERGY STAR certified homes and apartments across the state and the increase in the number of trained energy rating professionals. The EPA also recognized the Companies for helping their commercial customers save energy through incentives offered for ENERGY STAR certified commercial food service equipment and lab grade refrigerators and freezers.

Financing

Connecticut's efficiency financing solutions empower customers to invest in energy-saving improvements. The Board continued to work closely with the Green Bank and other financial institutions to promote efficiency financing programs, including C-PACE (Commercial Property-Assessed Clean Energy) and Smart-E loans.

new construction homes and apartments across Connecticut

1 This total reflects the number of energy efficiency projects funded through the following loans/financing programs: Micro Loan Home Energy Solutions, Heating Loan, Small Business and Municipal Loan, C&I Third-Party Financing, Smart-E Loan, and C-PACE.

Community Outreach and K-12 Education[1]

2023 HIGHLIGHTS

K-12 Education

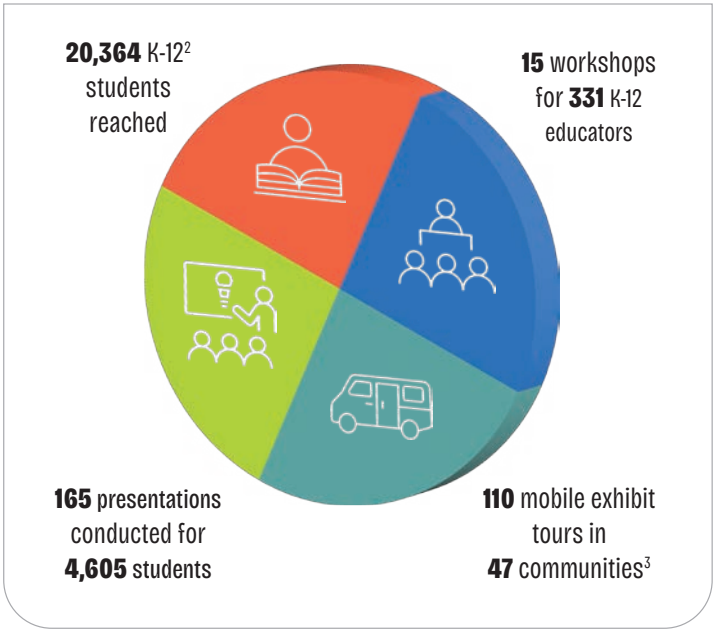
In 2023, the Companies provided K-12 students and educators with engaging curriculum, presentations, and professional development workshops. The Green Sustainable Technical Education Program (Green STEP) expanded its program certification trainings to include technical and non-technical Connecticut high schools with Virtual After-School and Summer trainings.

In July, the Companies launched the Green STEP Summer Energy Training Program, a first-of-its-kind three-week pilot, at New Haven's High School in the Community. Over 60 students representing 26 high schools earned industry certifications and connected with employers.

Students received certifications in:

- Building Performance Institute (BPI) Building Science Principles (32 students)
- Green Professional Organization (GPRO) Fundamentals of Building Green (22 students)
- BPI Healthy Housing Principles (15 students)
- BPI Infiltration & Duct Leakage (7 students)
- US Green Building Council Leadership in Energy Efficient Design (LEED) Green Associate (4 students)

Students also attended work-ready courses regarding OSHA-10, heat pumps, and resume and interviewing skills. The plan is to expand this successful program in 2024 to reach more students and communities.



The Energy In Action interactive mobile exhibit traveled to 110 schools and community-based events, focusing its outreach in distressed municipalities and environmental justice communities.

Community Outreach

The Community Partnership Initiative leverages the trusted relationships and knowledge of local groups, municipalities, and nonprofits to further efficiency adoption and educate residents and businesses on energy programs.

In 2023, nearly 18 municipalities, nonprofits, chambers of commerce, and school districts were selected to run outreach campaigns in environmental justice communities across Connecticut. These groups are conducting outreach to increase the number of homes participating in the Home Energy Solutions-Income Eligible program, encouraging the adoption of heat pumps among income-eligible customers, promoting Small Business Energy Advantage program participation, and increasing the deployment of energy efficiency programs to rental properties and multi-unit dwellings.

1 All the reporting for the K-12 Education programs are for the 2023 calendar year, except for Green STEP which is from September 1, 2022 to August 31, 2023.

2 Includes mobile exhibit tours, in-school presentations, Green STEP, and student contests.

3 Reaching 6,619 students and 320 adults at school events and 3,319 students and 1,060 adults at community events.

Residential Programs

Connecticut's efficiency programs offer a suite of services, incentives, and tools to help residential customers across the state reduce energy consumption, increase home comfort, and lower energy bills. Incentives are offered to customers to replace their existing heating, cooling, and water heating with high efficiency systems, participate in demand response strategies, install smart thermostats, build all-electric sustainable new construction, and to upgrade electrical appliances to ENERGY STAR certified models. The Home Energy Solutions℠ and Home Energy Solutions-Income Eligible programs offer energy assessment and in-home weatherization services for single-family (1-to-4 units) and multifamily (5+ units) properties to improve the efficiency of building envelopes and systems, including insulation, air and duct sealing, and windows.

In 2023, the Board, DEEP, and the Companies began exploring ways to integrate other funding sources to reach legislative MMBtu and greenhouse gas emissions reduction targets, including federal funding from IRA and the Connecticut Weatherization Assistance Program. As the DOE issues new guidance regarding IRA, the focus will continue to be on braiding funding as effectively as possible to meet the high demand for C&LM programs.

CASE STUDY—Housing Authority Achieves High Efficiency Performance

The World War II-era built Farnam Courts, which is owned by the New Haven Housing Authority, was previously known for the complex's rapidly deteriorating, inefficient residences that needed constant maintenance. Today, the site is the location of 205 high efficiency new construction residences for mixed incomes (low income and market rate), including renters and some owners. The multifamily complex includes 20 market-rate units and 185 subsidized units with one-, two-, three- and four-bedroom options, as well as 5,900 sq. ft. of retail space in two of the complex's mid-rise, mixed-use buildings. The project participated in the Residential New Construction program, which uses the Home Energy Rating System (HERS) Index to measure the efficiency of new construction projects and to assign incentives. Farnam Courts achieved Tier 1 High Performance Certification for its multifamily and mixed-use buildings with a 55 HERS score. Due to the efficiency measures installed, the complex is expected to save 3,020,329 kWh and 2,140 metric tons of carbon dioxide over the lifetime of the installed efficiency measures.

This Is How We Saved* Energy in 2023

$17.6 million in equivalent energy savings through residential programs

42,243 homes weatherized (market-rate and low-income single and multifamily homes)

14,792 upgrades to existing multifamily units (market-rate and low-income multifamily homes)

6,283 low-income households served (single-family homes–included in total above)**

33,069 heating and cooling systems installed

2,716 hot water systems installed

79,987 non-lighting products sold (retail and online marketplace)

492 single-family, energy-efficient homes built

1,376 new construction multifamily energy-efficient units built

* Based on annual savings expected in Connecticut

** Low-income households' energy burdens are typically 6% or more, according to Fisher, Sheehan, and Colton's Home Energy Affordability Gap Analysis

Residential Highlights

All-Electric New Construction

On July 1, 2023, Connecticut became one of the first states in the country to transition to an all-electric Residential New Construction program to help meet the state's decarbonization goals. An all-electric home couples a high-performance thermal envelope with efficient electric technologies for space conditioning and domestic hot water, as well as provides readiness capabilities for photovoltaic systems, demand response, battery storage, and electric vehicle charging.

Addressing Barriers to Weatherization

Weatherization is a general term used to refer to the installation of energy-efficient measures to optimize the building environment to minimize energy use. In 2023, DEEP's Residential Energy Preparation Services program began to address low-income households with health and safety barriers that prevent weatherization.[6] The program's services are designed to help improve the health of residents, reduce utility bills due to the efficiency upgrades installed after barrier remediation (such as removal of asbestos or vermiculite), and protect vulnerable individuals including children, people with asthma, the elderly, and the immunocompromised.

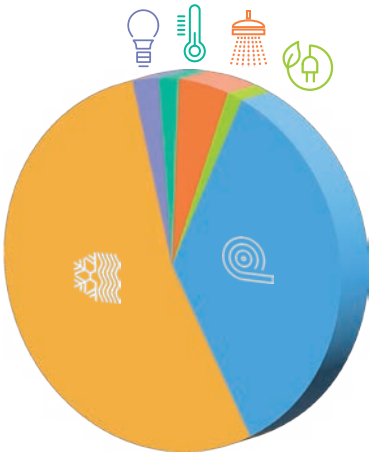
Expanding Income Qualifications

To reach more households across the state, the Companies reviewed the Home Energy Solutions-Income Eligible program's income qualifications to determine how to better align the offering with IRA and other low-income federal guidelines. As a result of the review, the Companies are preparing to modify the program's income qualifications to allow more households to qualify for enhanced low-income weatherization services. This change will require the Companies to make significant process and application updates, as well as enhance their income qualification screening capabilities and increase contractor education.

Insulation Boot Camp

As demand for weatherization services increases, the need for qualified insulation contractors also grows. In 2023, the Energize CT Insulation Boot Camp, a four-day course focused on training insulation installer field staff on the proper installation of high efficiency insulation in single-family homes, was successfully launched. From April to December 2023, approximately 270 insulation-installing individuals participated in the Insulation Boot Camp, which will be repeated in 2024 and 2025.

Here is how energy was saved in residential[1] homes:



- **54.0%** from Heating and Cooling[2]
- **35.6%** from Insulation/Building Envelope[3]
- **4.6%** from Refrigeration/Other[4]
- **2.5%** from Lighting
- **2.1%** from Hot Water[5]
- **1.2%** from Plug Load

1 Includes 42,243 single and multifamily homes served

2 Includes 33,069 heating and cooling systems installed (including 18,291 heat pumps)

3 Includes 5,118 insulation rebates

4 Includes 30,424 refrigerator and freezer rebates

5 Includes 2,716 water heating units installed

6 Information regarding the REPS program is available at: https://portal.ct.gov/DEEP/Energy/Conservation-and-Load-Management/Weatherization-Barrier-Mitigation

CASE STUDY— Investing in Decarbonization

As new homeowners in New Milford, Elizabeth and James Holton realized their 20-year-old, two-story colonial home needed some efficiency improvements to maintain a consistent temperature throughout the entire house and reduce its heat-loss. During each of the winter months, the Holtons used around 150 gallons of oil and spent approximately $300-to-$400 per month on energy bills. After some research and crunching numbers, the budget-conscious couple decided to work with an Eversource-approved contractor in the Heat Pump Installer Network to replace their oil burning furnace with a high efficiency ground source heat pump. Over its 25-year lifespan, the geothermal system is expected to reduce carbon dioxide emissions by 528 metric tons, the equivalent of removing 17 gas-powered cars from the road.

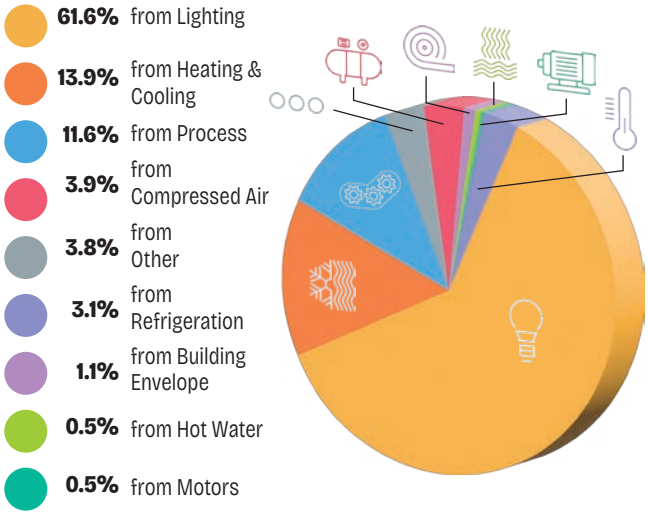
Commercial & Industrial Programs

Connecticut offers a suite of C&I energy solutions to serve each market segment, including new construction, retrofit and renovation, strategic energy management, and demand response. These solutions optimize the energy use of businesses of all sizes, including industrial customers, municipal and state facilities, colleges and universities, hospitals, houses of worship, and nonprofits. Efficiency solutions help C&I customers reduce their energy costs, meet corporate and sustainability goals, reduce peak demand, and decrease greenhouse gas emissions.

In 2023, there was an increase in the number of heat pump technologies installed for heating, cooling, and hot water needs and a growing demand for building energy management systems and high efficiency new construction and renovation projects. The Companies introduced fuel optimization recognizing the common path to boiler and furnace replacements is to replace what system already exists in a building—like for like. With fuel optimization, customers are able to install heat pumps and reduce their energy usage leading to cleaner fuel choice with a positive environmental impact.

Additionally, the Board's DEI consultant guided a collaborative group in the development of performance management incentives related to equity. These metrics measure C&I program participation in Department of Economic and Community Development (DECD)-designated distressed municipalities. This equity-driven approach will help more C&I customers access efficiency solutions.

Here is how energy was saved* in C&I and municipal buildings:



* Based on annual savings expected in Connecticut

CASE STUDY: University of Connecticut, Storrs, Connecticut

From the classroom to the court, the UConn Huskies are champions. So, when the need arose for a state-of-the-art science center on UConn's Storrs campus, university administrators turned to Eversource and CNG, a subsidiary of Avangrid, Inc., to help them design and build a sustainable building. The new construction project includes Whole Building Performance with monitoring-controlled ventilation, energy recovery, improved envelope performance, high efficiency lighting and lighting controls, and chilled beam systems. These measures are expected to save UConn 2.1 million ccf and 112 million kWh over the lifetime of the measures. As a result of the project, UConn is estimated to save $3.6 million in energy costs over the next 15+ years, getting the university back in the win column.

"UConn has a NextGenCT program, where we want to expand the campus to engage more students in STEM education. That involved building new construction and redeveloping older buildings. Our partnership with Eversource and CNG allows us to reach our sustainability goals." ***Stanley Nolan, Interim Associate Vice President-Facilities Operations, UConn***

2023 C&I Highlights

Helping Small and Microbusinesses

Small businesses are the backbone of Connecticut's economy. The Small Business Energy Advantage program is designed to help nonprofits, restaurants, retail stores, and other small and microbusinesses who do not have the financial resources, in-house expertise, or time necessary to analyze and reduce their energy consumption. A utility-authorized contractor performs a no-cost energy audit, provides an installation proposal with costs, and then installs energy-saving measures. This turnkey program, combined with incentives and zero-interest financing, minimizes how much effort the customer needs to make to invest in energy efficiency.

Manufacturing

Several C&I programs are designed specifically to help manufacturers save energy and optimize their industrial processes. The Process Reengineering for Improved Manufacturing Efficiency (PRIME) initiative offers lean manufacturing trainings to help manufacturers improve business operations, optimize energy use, and to identify process inefficiencies. In 2023, UI's virtual Retro-commissioning and Strategic Energy Management programs provided customers with Advanced Metering Infrastructure (AMI) meters custom evaluations of their facility usage and ongoing educational support. Eversource saw increased demand for the newly launched Small Manufacturer pilot and other Strategic Energy Management projects.

Leveraging C&LM Funds

The Southern New England Industrial Assessment Center (SNE-IAC) is an example of cost-sharing using C&LM funds leveraged with DOE federal funding. SNE-IAC provides comprehensive assessments, free-of-charge, to small and medium-sized manufacturers for saving energy and water, minimizing industrial waste, reducing carbon footprints, and improving productivity. The Companies support SNE-IAC in educating UConn students on our offerings and work with customers to implement recommendations made by the SNE-IAC auditor. Since July 2022, SNE-IAC has facilitated 18 facility assessments in Connecticut, including 7 facilities located in distressed municipalities. A total of 142 recommendations, such as compressed air, HVAC, motors and drives, and process heating and cooling, totaling $3.3 million in savings have been proposed.

This Is How We Saved* Energy in 2023

$44 million in efficient energy savings through C&I programs

5,906 C&I projects

280 C&I projects in distressed municipalities (included in total above)

920 Small Business Energy Advantage projects**

2,257 municipal and state projects

1,747 Energy Conscious Blueprint (new construction/new equipment for business) projects completed

313 heat pump technologies installed

145 projects that developed sustainable processes through the Business & Energy Sustainability program

786 high efficiency heating and cooling systems installed (does not include heat pumps)

* Based on annual savings expected in Connecticut

**Small businesses participate in other incentive programs

CASE STUDY: Petriello's Barbershop, Stratford, Connecticut

Since 1957, Petriello's Barbershop has provided quality men's haircuts and hot lather shaves to local Stratford, CT residents. The barbershop serves as a community hub for people to gather and share stories while waiting for their turn in the barber chair. In April 2023, Tony Salerno became the new owner and decided the shop needed an efficiency makeover. In August and September 2023, UI, a subsidiary of Avangrid, Inc., and a Small Business Energy Advantage contractor worked with Mr. Salerno to identify energy-saving opportunities. The contractor installed high efficiency LED strip lighting and screw-in LED bulbs, improving the aesthetics of the store, and helping highlight the skills and craftwork of the barbers. Over the lifetime of the efficiency measures, the project is expected to save 9,982 kWh and the payback period for Mr. Salerno's investment is less than two years, making this project a cut above the rest.

Activities in 2023 Produced Substantial Economic and Environmental Benefits for Residents, Businesses, and Municipalities

Workforce Development

Connecticut's C&LM programs support a robust workforce of 34,106 energy efficiency professionals and workers from across the state and local region.[1] The workforce's earnings are reinvested in their local communities, making it an economic win for Connecticut residents, businesses, and municipalities.

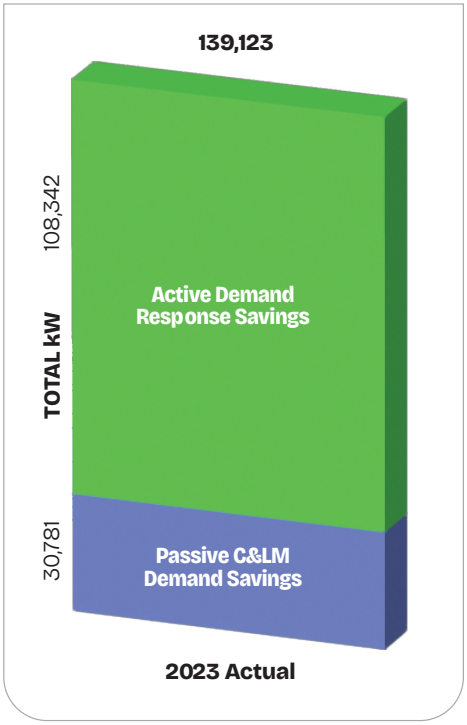
Based on research studies, the Companies developed their 2023-2027 Workforce Development strategy to foster partnerships with state and local agencies, expand and enhance the contractor technician base on efficiency and decarbonization skillsets, and develop course offerings covering the breadth and depth of key topics that meet the needs of the current and future efficiency workforce.

In 2023, the Business Partner Career Center, an online platform for job, apprenticeship, and internship seekers, was successfully launched to expand access into Connecticut's efficiency workforce.[2] This platform is designed to facilitate connections between new recruits and efficiency employment opportunities.

Demand Management

With increased clean energy deployments across the state, there is a need for integrated demand management. Energy efficiency (passive demand) and demand management programs (active demand) decrease overall energy consumption and reduce peak demand on the grid, providing environmental and financial benefits to Connecticut residents, businesses, and municipalities.

Customers who participate in active demand response programs are required to make discrete actions that they would not have otherwise taken to reduce their electrical load for a specified period, such as allowing their smart thermostats to be remotely adjusted a few degrees. Connecticut's demand management offerings incentivize those brief reductions in customer load during targeted periods of high system demand.



In 2023, more than 56,979 units were enrolled in the Companies' residential and C&I active demand response programs, achieving 108.3 MW savings. These units were enrolled in smart thermostat and load curtailment (C&I only).

	Estimated Annual Savings 2023 (Tons)[3]			Estimated Lifetime Savings 2023 (Tons)[3]		
Air Emissions	Electric	Natural Gas	Fuel Oil and Propane	Electric	Natural Gas	Fuel Oil and Propane
Sulfur oxides (SO_X)	3	0.1	0.4	22	1	7
Nitrous oxides (NO_X)	10	15	25	82	220	471
Carbon dioxide (CO_2)	63,863	20,348	30,547	533,478	297,187	565,162

1 The 2022 Clean Energy Industry Report reflects 2021 data.

2 See energizect.careerwebsite.com

3 CO_2 emissions are in short tons.

Protect the Environment

A primary objective of the C&LM programs is to protect the environment and reduce the negative impacts of climate change and air pollution. When fossil fuels are burned at traditional power plants or on-site at a home or business, they release carbon dioxide and other air pollutants. Energy efficiency programs reduce these harmful emissions and air pollutants, such as carbon dioxide, nitrous oxides, sulfur oxides, and chlorofluorocarbons (from refrigerants).

Approximately 30 percent of Connecticut's economy-wide carbon emissions are a result of fossil fuel combustion in residential and commercial buildings, with delivered fuels such as propane and heating oil accounting for 61 percent of residential sector emissions.[1] Efficiency programs are instrumental in achieving cost-effective decarbonization and making homes and buildings "make ready" or better equipped to use clean energy sources. This protects the environment and public health, as people living, working, and residing in marginalized communities are more likely to have health conditions exacerbated by air pollution.

	ANNUAL	LIFETIME			
	Annual Savings (Millions)	Lifetime Savings (Millions)	Number of Projects & Rebates[2]	Annual CO_2 Emissions[3] Reduced (Tons)	Annual MMBtus Reduced (Thousands)
Home Energy Solutions (including insulation and windows)	$ 5.68	$ 111.47	35,360	13,386	172,114
Home Energy Solutions – Income Eligible	$ 3.63	$ 58.61	20,125	8,800	116,985
Retail Products	$ 2.10	$ 20.77	87,440	2,660	23,935
HVAC and Water Heating Equipment	$ 3.63	$ 61.80	64,629	14,321	204,469
Residential New Construction	$ 2.04	$ 45.40	2,638	3,507	42,825
Residential Behavior	$ 0.49	$ 0.98	69,884	1,615	24,515
Small Business	$ 4.80	$ 40.51	920	6,191	56,716
Business & Energy Sustainability	$ 2.37	$ 15.07	145	5,889	74,842
Existing Buildings (mid- and large-sized businesses)	$ 31.36	$ 236.76	2,703	48,080	448,721
Energy Conscious Blueprint (new construction/new equipment for business)	$ 5.49	$ 77.64	1,747	10,309	112,624
Total	$ 61.59	$ 669.01	342,552	114,758	1,277,887

1 DEEP, 1990-2021 Connecticut Greenhouse Gas Emissions Report.

2 Additionally, there are 36,621 customers who participated in active demand response programs by enrolling 56,979 units.

3 Annual CO_2 emissions are in short tons.

Demonstrating Economic Benefits Throughout Connecticut

This list includes energy efficiency and conservation benefits provided to residential, commercial, municipal, and industrial customers of Eversource, UI, CNG, and SCG.

Town	Energy Incentives	Annual MMBtu	Lifetime MMBtu	Peak Demand kW	Annual Dollars Saved	Lifetime Dollars Saved	Annual CO_2 (Tons) Saved
Andover	$ 101,240	706	12,030	7	$ 24,570	$ 374,634	56
Ansonia	$ 564,098	2,913	52,151	28	$ 60,047	$ 797,178	201
Ashford	$ 172,737	996	13,842	31	$ 51,086	$ 561,833	92
Avon	$ 852,275	5,717	102,187	77	$ 162,070	$ 2,326,427	425
Barkhamsted	$ 275,762	1,390	21,026	32	$ 73,253	$ 916,170	131
Beacon Falls	$ 360,397	3,608	78,202	40	$ 116,832	$ 2,231,770	271
Berlin	$ 1,440,599	11,599	123,691	555	$ 762,468	$ 6,609,992	1,189
Bethany	$ 416,100	2,139	39,068	36	$ 81,147	$ 1,368,083	182
Bethel	$ 737,522	4,711	62,116	123	$ 222,527	$ 2,267,974	416
Bethlehem	$ 293,141	1,489	26,422	13	$ 43,273	$ 650,226	111
Bloomfield	$ 2,640,687	17,003	176,360	689	$ 1,203,874	$ 10,965,316	1,805
Bolton	$ 179,593	1,035	15,994	23	$ 42,647	$ 495,434	88
Branford	$ 1,373,281	9,358	116,100	342	$ 524,552	$ 5,601,095	881
Bridgeport	$ 3,158,938	29,357	372,452	743	$ 1,498,334	$ 14,023,132	2,682
Bridgewater	$ 102,662	581	11,546	6	$ 16,638	$ 307,140	46
Bristol	$ 3,115,434	20,893	275,259	763	$ 1,128,651	$ 11,603,535	1,923
Brookfield	$ 995,249	8,226	112,734	152	$ 451,520	$ 4,977,745	781
Brooklyn	$ 303,791	1,613	25,598	26	$ 71,562	$ 928,679	144
Burlington	$ 498,226	2,722	50,789	24	$ 85,171	$ 1,423,121	210
Canaan	$ 144,668	1,008	13,151	8	$ 40,749	$ 448,520	88
Canterbury	$ 204,638	716	11,129	18	$ 36,550	$ 472,446	67
Canton	$ 645,371	3,486	52,886	76	$ 160,584	$ 1,931,297	306
Chaplin	$ 67,411	386	5,461	12	$ 23,886	$ 300,864	38
Cheshire	$ 3,739,485	23,374	312,690	769	$ 1,400,385	$ 15,869,624	2,284
Chester	$ 245,059	1,885	26,702	45	$ 106,763	$ 1,330,552	181
Clinton	$ 652,349	4,089	66,653	67	$ 156,466	$ 2,104,284	337
Colchester	$ 670,074	3,944	58,957	89	$ 186,461	$ 2,298,529	354
Colebrook	$ 39,443	239	4,812	2	$ 6,158	$ 126,826	18
Columbia	$ 190,414	1,122	20,018	17	$ 41,783	$ 651,989	91
Cornwall	$ 91,479	451	7,956	4	$ 15,547	$ 260,903	37
Coventry	$ 385,161	2,531	48,392	39	$ 110,589	$ 1,962,761	217
Cromwell	$ 462,818	3,367	51,332	79	$ 165,357	$ 2,047,771	293
Danbury	$ 3,118,836	22,489	266,326	501	$ 1,241,487	$ 11,444,131	2,115
Darien	$ 1,180,839	8,943	168,797	157	$ 303,361	$ 4,905,417	706
Deep River	$ 239,919	1,317	21,152	24	$ 54,706	$ 740,471	114
Derby	$ 674,791	5,715	56,549	201	$ 344,394	$ 2,442,169	563
Durham	$ 426,863	2,504	39,708	49	$ 101,324	$ 1,291,960	206
East Granby	$ 877,374	6,956	68,024	226	$ 400,809	$ 3,544,220	666

CASE STUDY: The Foote School, New Haven, Connecticut

Established in 1916, The Foote School is a nationally recognized K-9 independent school in New Haven, CT. The school's architecture and curriculum emphasize a connection to the outdoors and natural environment. Over a three-year period, the school, in partnership with UI and SCG, subsidiaries of Avangrid, Inc., completed several phases of deep energy retrofit projects at the multi-building complex, including water conservation, environmental controls, upgraded insulation, spectrally selective window tints, heat destratification systems for the gymnasiums, a new building management system, envelope sealing and weatherization, air handlers to improve indoor air quality, and indoor and outdoor lighting and lighting controls. The school's curriculum showcases these measures through a project-based learning program. The project's energy savings will save the school 3.3 million kWh and 96,000 ccf over the next 15+ years.

Town	Energy Incentives	Annual MMBtu	Lifetime MMBtu	Peak Demand kW	Annual Dollars Saved	Lifetime Dollars Saved	Annual CO_2 (Tons) Saved
East Haddam	$ 420,807	2,622	37,226	58	$ 127,547	$ 1,500,892	236
East Hampton	$ 638,180	4,426	68,151	105	$ 205,076	$ 2,333,148	396
East Hartford	$ 3,643,906	29,854	287,686	1,436	$ 1,910,616	$ 15,647,431	3,000
East Haven	$ 543,974	2,940	44,299	31	$ 99,077	$ 856,863	233
East Lyme	$ 1,069,570	5,948	98,798	110	$ 262,753	$ 3,883,247	515
East Windsor	$ 516,837	3,686	48,712	96	$ 174,428	$ 1,781,190	325
Eastford	$ 44,553	236	2,737	8	$ 16,164	$ 162,199	25
Easton	$ 296,673	751	14,866	0	$ 20,459	$ 406,047	57
Ellington	$ 798,508	4,876	70,766	114	$ 261,177	$ 3,250,557	450
Enfield	$ 2,063,165	14,013	177,647	486	$ 774,834	$ 7,633,704	1,323
Essex	$ 397,916	2,564	40,140	48	$ 98,853	$ 1,277,668	217
Fairfield	$ 1,571,112	7,862	102,624	347	$ 329,283	$ 2,848,074	668
Farmington	$ 1,380,183	9,536	143,806	240	$ 467,751	$ 5,837,489	856
Franklin	$ 109,428	905	11,840	38	$ 57,878	$ 659,373	91
Glastonbury	$ 1,539,026	10,309	151,391	269	$ 446,600	$ 4,872,313	880
Goshen	$ 216,029	854	15,954	11	$ 30,624	$ 571,510	67
Granby	$ 535,092	3,877	55,838	79	$ 181,269	$ 2,105,601	341
Greenwich	$ 1,516,213	10,675	162,771	271	$ 422,764	$ 4,486,804	864
Griswold	$ 267,911	1,508	25,502	22	$ 58,667	$ 894,876	127
Groton	$ 153,107	3,210	50,942	2	$ 42,690	$ 683,885	202
Guilford	$ 1,426,910	9,318	142,852	213	$ 450,696	$ 5,764,093	852
Haddam	$ 389,331	3,108	44,414	74	$ 148,407	$ 1,670,244	284
Hamden	$ 2,010,861	13,547	157,450	249	$ 595,561	$ 4,278,256	1,172
Hampton	$ 82,720	513	9,488	7	$ 19,668	$ 346,382	42
Hartford	$ 3,939,518	35,470	437,554	946	$ 1,977,486	$ 21,244,815	3,363
Hartland	$ 74,087	236	4,470	5	$ 9,162	$ 163,491	19
Harwinton	$ 238,452	1,366	22,210	20	$ 53,591	$ 732,125	114
Hebron	$ 299,436	1,869	32,583	38	$ 66,612	$ 1,013,269	152
Kent	$ 196,892	895	16,521	17	$ 32,226	$ 551,141	73
Killingly	$ 831,538	6,681	85,220	208	$ 437,520	$ 4,934,131	688
Killingworth	$ 337,618	1,861	33,850	26	$ 65,153	$ 1,078,187	150
Lebanon	$ 210,103	1,447	20,987	33	$ 69,635	$ 798,658	129
Ledyard	$ 535,607	5,885	60,997	176	$ 273,168	$ 2,322,295	521
Lisbon	$ 97,704	655	8,783	17	$ 35,640	$ 375,378	63
Litchfield	$ 481,360	2,846	50,829	46	$ 106,964	$ 1,769,730	225
Lyme	$ 185,933	1,187	22,665	9	$ 31,674	$ 610,465	92
Madison	$ 1,142,459	6,436	107,867	114	$ 225,426	$ 3,191,197	515
Manchester	$ 2,264,247	11,658	154,812	385	$ 578,373	$ 5,456,266	1,068
Mansfield	$ 1,903,911	21,060	314,832	314	$ 846,100	$ 10,761,292	1,748
Marlborough	$ 324,557	1,711	32,329	15	$ 51,445	$ 905,561	134
Meriden	$ 2,666,120	18,093	253,112	416	$ 813,189	$ 8,640,686	1,520
Middlebury	$ 477,505	2,951	46,273	58	$ 128,196	$ 1,606,043	256

Manchester Board of Education, Manchester, Connecticut

The Town of Manchester recently completed an ambitious sustainability project to transform three 1950s-era elementary schools—Buckley, Bowers, and Keeney—into net zero energy buildings. Buckley became the first renovate-as-new net zero energy public school in Connecticut. Eversource provided technical assistance in conducting energy models to determine the optimal efficiency needed to reach each school's energy use intensity (EUI) goals. Installed efficiency measures include ground source heat pumps, water source heat pumps on geothermal loops, domestic hot water heat pumps, a high efficiency building envelope including spray foam insulation, LED lighting, variable speed fan controls, and demand control ventilation. The projects have reduced the town's annual greenhouse gas emissions by 1,620 short tons, and the energy savings will be reinvested back into education.

"We are proud that these net zero school projects showcase the ambitious and immediate action we're taking as a community to transition our schools away from fossil fuels and towards a renewable energy future." ***Chris Till, Facilities Manager for the Town of Manchester***

Town	Energy Incentives	Annual MMBtu	Lifetime MMBtu	Peak Demand kW	Annual Dollars Saved	Lifetime Dollars Saved	Annual CO_2 (Tons) Saved
Middlefield	$ 265,723	1,514	25,976	34	$ 62,425	$ 906,123	130
Middletown	$ 4,086,679	42,561	556,541	569	$ 1,404,170	$ 14,936,400	3,291
Milford	$ 1,828,574	12,648	59,932	286	$ 674,392	$ 3,103,575	1,181
Monroe	$ 876,990	5,764	82,046	189	$ 290,444	$ 3,232,183	517
Montville	$ 916,236	6,160	90,952	141	$ 290,238	$ 3,467,456	553
Morris	$ 94,428	482	8,017	12	$ 21,471	$ 324,596	41
Naugatuck	$ 2,254,593	12,171	176,890	314	$ 589,158	$ 7,028,924	1,080
New Britain	$ 2,501,292	17,754	214,419	719	$ 1,145,951	$ 11,863,861	1,807
New Canaan	$ 1,007,373	7,493	139,881	112	$ 232,413	$ 3,459,830	570
New Fairfield	$ 493,838	3,416	55,712	59	$ 145,661	$ 1,835,733	300
New Hartford	$ 417,677	2,400	49,940	34	$ 119,509	$ 2,624,305	217
New Haven	$ 3,836,422	45,765	474,591	721	$ 1,853,979	$ 18,954,327	3,814
New London	$ 2,345,163	17,721	249,740	267	$ 776,685	$ 8,399,386	1,461
New Milford	$ 1,475,016	7,713	109,722	182	$ 315,647	$ 3,999,068	650
Newington	$ 1,337,280	9,220	116,041	284	$ 547,613	$ 5,461,386	904
Newtown	$ 1,470,233	9,774	175,397	146	$ 362,359	$ 5,511,427	794
Norfolk	$ 128,565	414	7,170	7	$ 15,579	$ 242,017	35
North Branford	$ 354,104	2,162	34,516	30	$ 44,717	$ 230,275	151
North Canaan	$ 218,246	1,784	20,127	80	$ 125,983	$ 1,272,115	190
North Haven	$ 2,113,964	16,886	24,222	473	$ 1,043,863	$ 4,380,864	1,697
North Stonington	$ 169,915	930	16,431	15	$ 40,462	$ 624,946	78
Norwalk	$ 2,475,526	17,785	269,900	271	$ 717,447	$ 9,133,492	1,470
Norwich	$ 385	8	135	0	$ 128	$ 2,204	0
Old Lyme	$ 628,377	3,109	56,769	33	$ 111,816	$ 1,924,066	255
Old Saybrook	$ 606,477	4,059	61,811	86	$ 179,667	$ 2,237,170	353
Orange	$ 442,769	3,000	32,035	72	$ 168,842	$ 1,208,592	289
Oxford	$ 579,049	4,860	91,513	109	$ 161,541	$ 2,253,950	379
Plainfield	$ 864,592	5,779	67,996	197	$ 344,540	$ 3,667,683	565
Plainville	$ 1,129,966	9,482	131,370	436	$ 532,382	$ 5,879,742	875
Plymouth	$ 550,282	3,020	48,777	42	$ 106,019	$ 1,479,249	237
Pomfret	$ 273,354	2,534	23,465	107	$ 181,916	$ 1,465,356	271
Portland	$ 463,584	3,080	47,681	60	$ 128,588	$ 1,469,445	267
Preston	$ 176,403	1,262	15,337	67	$ 78,636	$ 797,762	128
Prospect	$ 592,575	2,938	51,175	54	$ 112,609	$ 1,742,667	245
Putnam	$ 381,942	2,525	32,110	70	$ 139,110	$ 1,458,231	239
Redding	$ 645,716	7,413	101,788	152	$ 284,400	$ 3,502,904	628
Ridgefield	$ 1,361,081	10,914	174,314	139	$ 335,875	$ 4,543,561	854
Rocky Hill	$ 819,205	9,567	87,442	184	$ 366,378	$ 3,184,820	780
Roxbury	$ 127,847	861	16,710	8	$ 26,406	$ 499,355	64
Salem	$ 167,300	797	14,038	12	$ 28,909	$ 420,491	66
Salisbury	$ 273,335	1,396	20,550	49	$ 74,812	$ 927,679	131
Scotland	$ 53,616	222	3,600	13	$ 11,723	$ 168,884	21
Seymour	$ 1,369,311	6,134	96,818	100	$ 293,642	$ 4,080,440	545
Sharon	$ 169,932	668	11,827	8	$ 25,444	$ 401,862	56
Shelton	$ 1,226,234	10,106	153,921	243	$ 407,393	$ 3,947,032	859

CASE STUDY: Bridgeport Public Schools, Bridgeport, Connecticut

In 2023, the DOE's Office of State and Community Energy Programs selected Bridgeport Public Schools and UConn's School of Engineering as recipients of a $3.6 million Renew America's Schools grant. The project was one of only 24 selected nationwide. The grant funds deep energy retrofits at two Bridgeport schools and the installation of building management systems and controls, condensing boilers, heat pump water heaters, variable frequency drives, high efficiency lighting with controls, and retro commissioning of heating and cooling systems. UI, a subsidiary of Avangrid, Inc., is a partner in the grant and will administer C&LM incentives and rebates to support the projects. The projects are expected to save 1,000 MWh and 32,000 ccf per year, resulting in $200,000 annual savings. The grant also funds apprenticeships and internships for CT Technical Education & Career System, Housatonic Community College, and UConn students.

Town	Energy Incentives	Annual MMBtu	Lifetime MMBtu	Peak Demand kW	Annual Dollars Saved	Lifetime Dollars Saved	Annual CO_2 (Tons) Saved
Sherman	$ 207,113	1,179	22,282	15	$ 40,409	$ 765,077	95
Simsbury	$ 965,334	5,623	94,151	117	$ 204,376	$ 2,853,427	458
Somers	$ 434,268	2,151	36,996	35	$ 82,892	$ 1,178,822	182
South Windsor	$ 1,977,550	13,896	189,090	414	$ 643,646	$ 7,249,323	1,184
Southbury	$ 1,436,689	7,691	124,554	177	$ 387,509	$ 5,517,625	675
Southington	$ 3,849,130	19,723	312,366	416	$ 820,578	$ 10,347,752	1,579
Sprague	$ 95,125	735	9,855	15	$ 39,228	$ 401,867	70
Stafford	$ 1,093,828	7,350	76,160	201	$ 527,414	$ 4,782,918	791
Stamford	$ 5,141,294	50,952	649,967	1,284	$ 2,325,432	$ 25,742,084	4,383
Sterling	$ 151,965	733	10,653	18	$ 39,005	$ 493,604	70
Stonington	$ 1,730,851	11,289	173,404	365	$ 671,310	$ 9,480,904	1,108
Stratford	$ 2,241,835	16,947	206,410	523	$ 1,008,381	$ 9,848,077	1,661
Suffield	$ 468,526	3,886	56,783	95	$ 177,308	$ 1,841,356	339
Thomaston	$ 568,341	3,184	41,227	97	$ 170,365	$ 1,679,269	289
Thompson	$ 272,571	1,477	25,781	23	$ 65,652	$ 1,007,312	130
Tolland	$ 707,445	4,123	65,692	76	$ 172,117	$ 2,195,065	359
Torrington	$ 2,959,274	16,843	223,032	434	$ 897,253	$ 9,881,630	1,552
Trumbull	$ 500,073	3,506	55,357	58	$ 98,214	$ 859,476	265
Union	$ 32,484	175	3,046	3	$ 6,581	$ 101,140	14
Vernon	$ 943,372	6,610	96,199	128	$ 298,591	$ 3,084,914	574
Voluntown	$ 63,872	254	4,296	4	$ 10,439	$ 165,211	22
Wallingford	$ 215,177	6,826	89,363	2	$ 87,172	$ 1,132,621	423
Warren	$ 112,949	393	7,506	5	$ 12,578	$ 229,108	31
Washington	$ 239,446	1,467	21,163	45	$ 69,626	$ 852,622	130
Waterbury	$ 6,269,260	34,427	456,659	902	$ 1,767,165	$ 18,474,639	3,151
Waterford	$ 1,027,227	5,735	89,367	112	$ 261,655	$ 3,403,545	508
Watertown	$ 2,030,170	11,242	140,904	352	$ 599,309	$ 5,943,127	1,031
West Hartford	$ 2,420,639	16,221	230,093	364	$ 677,565	$ 6,715,770	1,363
West Haven	$ 856,205	6,375	74,221	135	$ 342,339	$ 2,496,423	598
Westbrook	$ 422,631	2,416	33,554	76	$ 126,315	$ 1,402,947	220
Weston	$ 601,323	3,941	75,780	40	$ 100,562	$ 1,824,026	297
Westport	$ 1,125,635	7,079	122,441	113	$ 243,387	$ 3,317,902	571
Wethersfield	$ 851,212	5,075	69,515	158	$ 245,204	$ 2,388,650	450
Willington	$ 170,683	931	17,915	11	$ 38,055	$ 708,719	79
Wilton	$ 1,146,744	6,571	116,505	152	$ 233,463	$ 3,651,572	537
Winchester	$ 736,735	5,066	79,625	95	$ 216,086	$ 2,306,968	421
Windham	$ 1,348,860	8,942	107,820	262	$ 468,077	$ 4,166,085	820
Windsor	$ 2,451,324	20,169	241,628	615	$ 1,263,868	$ 12,741,674	2,000
Windsor Locks	$ 2,874,939	37,947	437,354	439	$ 1,843,396	$ 19,735,422	3,360
Wolcott	$ 1,013,426	3,959	66,465	65	$ 157,575	$ 2,290,255	329
Woodbridge	$ 467,844	1,548	15,555	74	$ 55,676	$ 33,702	128
Woodbury	$ 569,394	2,718	47,140	49	$ 109,316	$ 1,703,748	231
Woodstock	$ 255,332	1,529	23,348	38	$ 75,773	$ 914,391	140

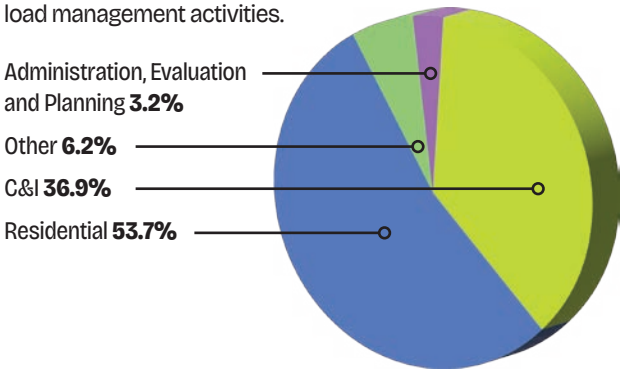
CASE STUDY: Small Business Energy Efficiency Campaign, New Haven, Connecticut

In 2023, participation in the Community Partnership Initiative doubled with nearly 18 partner groups receiving funding across Connecticut. One of these partner groups, the City of New Haven Small Business Resource Center and the Office of Climate and Sustainability, launched the New Haven Small Business Energy Efficiency Campaign. In September, the partner groups worked with UI and SCG, subsidiaries of Avangrid, Inc., to hold two webinars and distribute postcards to promote the upcoming campaign, kick-off event, and the Small Business Energy Advantage (SBEA) program and its no-cost energy efficiency assessments. The partner groups held the campaign's kick-off event at two New Haven small businesses, Mae Flower and Gift Shop and Dope N Delicious, LLC, where a SBEA program vendor completed on-the-spot assessments. Following the successful event, the partner groups received 31 leads and approved SBEA vendors conducted a week-long canvassing campaign to reach additional New Haven small businesses.

2023 Actual Spending / 2024 Budget

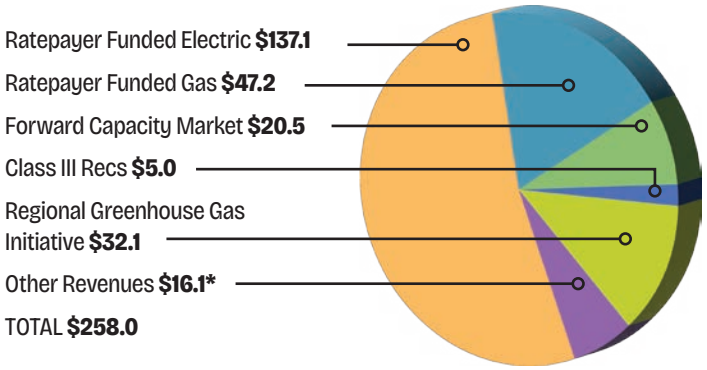
2023 EFFICIENCY PROGRAM SPENDING

Energy efficiency programs are administered to maximize the cost effectiveness and impacts of energy efficiency and load management activities.



2023 EFFICIENCY PROGRAM FUNDING

Funding for energy efficiency programs comes from many sources. Funding reflects 2023 revenues received in millions.



2023 Energy Efficiency Programs	2023 Actuals Electric	2024 Plan Electric	2023 Actuals Natural Gas	2024 Plan Natural Gas
RESIDENTIAL				
Residential Retail Products	$ 4,349,644	$ 4,231,564	$ —	$ —
Residential New Construction	4,647,882	4,049,756	1,562,241	511,843
Home Energy Solutions – Core Services	31,373,205	26,832,165	10,937,734	9.781,611
Home Energy Solutions – HVAC, Water Heaters	29,886,744	15,795,571	2,118,004	4,914,094
Home Energy Solutions – Income Eligible	28,572,400	20,766,204	11,027,911	13,645,141
Residential Behavior	106,464	209,405	254,753	363,314
Subtotal Residential	**$ 98,936,340**	**$ 71,884,665**	**$ 25,900,643**	**$ 29,216,003**
COMMERCIAL & INDUSTRIAL				
Energy Conscious Blueprint	$ 16,472,731	$ 17,373,663	$ 4,605,144	$ 7,786,022
Energy Opportunities	44,504,654	37,829,439	4,575,293	5,921,059
Business & Energy Sustainability (O&M, RCx, and PRIME)	3,185,200	4,283,365	1,105,744	1,752,902
Small Business	11,601,407	15,937,952	661,540	1,503,899
Subtotal C&I	**$ 75,763,993**	**$ 75,424,418**	**$ 10,947,721**	**$ 16,963,882**
EDUCATION, ENGAGEMENT & FINANCING				
Energy Education	$ 1,059,592	$ 480,000	$ 210,033	$ 169,999
Workforce Development	1,154,748	1,180,000	304,802	295,000
Community Outreach	1,057,411	992,000	388,434	248,000
Customer Engagement Initiative	521,314	998,400	105,456	240,000
Residential Loan Program (Includes ECLF and OBR)	1,296,123	2,146,738	98,522	239,774
C&I Financing Support	2,000,000	1,585,000	2,761	184,572
Research, Development & Demonstration	52,225	313,477	4,868	150,000
Subtotal Education, Engagement & Financing	**$ 7,141,415**	**$ 7,695,615**	**$ 1,114,876**	**$ 1,527,345**
LOAD MANAGEMENT				
Residential Demand Response	$ 5,610,420	$ 4,057,388	$ 756,303	$ 1,102,593
C&I Demand Response	3,036,893	5,368,063	140,634	539,953
Subtotal Load Management	**$ 8,647,313**	**$ 9,425,451**	**$ 896,937**	**$ 1,642,547**
ADMINISTRATIVE & PLANNING				
Administration	$ 1,141,849	$ 1,083,271	$ 545,142	$ 523,332
Marketing Plan	534,345	551,780	102,111	120,300
Planning	1,156,487	897,213	278,838	264,808
Evaluation Measurement and Verification	3,600,000	4,620,000	900,000	1,155,000
Evaluation Administrator	393,546	424,925	95,046	106,230
Information Technology	1,860,872	2,356,472	778,068	712,021
Energy Efficiency Board Consultants	625,288	698,038	161,610	174,509
Audits — Financial and Operational	70,000	84,000	20,000	30,000
Performance Management Incentive (PMI)	10,589,458	8,696,945	1,668,275	2,606,261
Admin/Planning Expenditures	**$ 19,971,845**	**$ 19,412,644**	**$ 4,549,089**	**$ 5,692,462**
TOTAL ENERGY EFFICIENCY BUDGET	**$ 210,460,906**	**$ 183,842,793**	**$ $43,409,267**	**$ 55,042,239**

* This includes Park City Wind termination fees and additional Regional Greenhouse Gas Initiative funding. DEEP secured this additional funding to help cover C&LM program demand and limit impacts on contractors and customers.

2023 Savings

The Board and Companies acknowledge the delicate balancing act needed to achieve the policy goals of decarbonization, equity, and reducing customers' energy bills. Over the past few years, a marketplace transformation has occurred with a shift away from an electric savings focus to a climate-forward framework that prioritizes greenhouse gas emission reductions and all fuel energy savings (MMBtus).

In 2023, the Companies made enhancements to their dashboards to allow for increased visibility regarding C&LM program performance. Based on feedback from the Board and DEEP, the Companies will continue to provide improved reporting in 2024.[1]

Savings	Customers Served	CO_2 Emissions Reduced	ENERGY SAVINGS			
			MMBtus	kWh = Electricity	ccf = Natural Gas	Gallons = Fuel Oil & Propane
2023 RESIDENTIAL PROGRAM SAVINGS						
Annual: **$17.6 Million**	**336,646**	Annual: **44,289 Tons**	Annual: **584,844**	Annual: **10.3 Million**	Annual: **1,762.0 Thousand**	Annual: **2,824.0 Thousand**
Lifetime: **$299.0 Million**		Lifetime: **782,004 Tons**	Lifetime: **10,446,412**	Lifetime: **97.0 Million**	Lifetime: **30,556.0 Thousand**	Lifetime: **53,557.0 Thousand**
2023 COMMERCIAL & INDUSTRIAL PROGRAM SAVINGS						
Annual: **$44.0 Million**	**5,906**	Annual: **70,469 Tons**	Annual: **693,043**	Annual: **154.2 Million**	Annual: **1,443.0 Thousand**	Annual: **147.0 Thousand**
Lifetime: **$370.0 Million**		Lifetime: **613,822 Tons**	Lifetime: **6,222,455**	Lifetime: **1,277.0 Million**	Lifetime: **16,253.0 Thousand**	Lifetime: **1,607.0 Thousand**
2023 COMBINED RESIDENTIAL AND COMMERCIAL & INDUSTRIAL SAVINGS						
Annual: **$61.6 Million**	**342,552**	Annual: **114,758 Tons**	Annual: **1,277,887**	Annual: **164.5 Million**	Annual: **3,205.0 Thousand**	Annual: **2,971.0 Thousand**
Lifetime: **$699.0 Million**		Lifetime: **1,395,826 Tons**	Lifetime: **16,668,867**	Lifetime: **1,374.0 Million**	Lifetime: **46,809.0 Thousand**	Lifetime: **55,164.0 Thousand**

1 Energize CT Dashboard: https://www.ctenergydashboard.com/Login.aspx

2023 Key Benefits

At an average of $15/MMBtu it is less expensive to save energy through Connecticut's existing, award-winning efficiency programs than it is to generate it through any other means.

Together, the Board, DEEP, Eversource, UI, CNG, SCG, and the Green Bank make Connecticut a better place to live and work. As a result, all customers will benefit in the long term from lower total energy costs.

Every $1.00 collected results in an additional $4.20 of clean energy investment

This investment by residential, commercial, industrial, and municipal energy customers improves the quality of life in Connecticut.

43,028 jobs

Clean energy investment supports 43,028 Connecticut jobs in HVAC, electrical, manufacturing, insulation, weatherization, and solar industries. (Includes 34,106 efficiency jobs).[1]

$6.8 Billion increase to the gross state product

Generated by the Conservation and Load Management Plan (Eversource, UI, CNG, and SCG) and the Comprehensive Plan (Green Bank). [2]

Energy savings equivalent to a 44 MW power plant

This is enough energy to power approximately 24,153 homes for a year.

112,963 tons of carbon dioxide emissions avoided, plus $1 Million in public health costs saved

Supporting our state's drive towards carbon neutrality.[3]

$81.4 Million in Connecticut tax revenues

Generated from energy efficiency, renewable, and financing measures supported by the Conservation and Load Management Plan (Eversource, UI, CNG, and SCG) and the Comprehensive Plan (Green Bank). [4]

The numbers presented are from the implementation of the 2022-2024 Conservation & Load Management Plan administered by Eversource, UI, CNG, and SCG and the 2023 Comprehensive Plan administered by the Green Bank. These numbers reflect 2023 annual savings and benefits calculated from C&LM and Green Bank reporting.

1 The 2022 Clean Industry Energy Report reflects 2021 data.

2 The 2020 Environment Northeast (ENE) (Based on updated formula data).

3 EPA Avoided Emissions and Generation Tool (AVERT) and EPA Co-Benefits Risk Assessment Model.

4 Based on the 2019 Navigant Study.

Board Members, Designees, and Company Representatives

Anthony Kosior
Chairperson
Yale University
2 Whitney Avenue
New Haven, CT 06510
Elected Chair in September 2023

Energy Efficiency Board

Promoting Economic Development, Environmental Benefits, And Energy Security Through The Efficient Use of Energy.

Energy efficiency programs and services are marketed under the statewide brand, Energize Connecticut, and provided by Eversource, UI, CNG, and SCG. The Board's members are drawn from private and public entities and represent a cross section of energy consumers including residents, businesses, nonprofits, communities, and municipalities. The Board is assisted by consultants who are experts in their respective fields. The Board assists and advises the Companies throughout the year via participation in various committees and as a whole. The Board also collaborates and cooperates with the energy efficiency programs of the Connecticut Municipal Electric Energy Cooperative and the Wallingford Electric Division.

Ronald J. Araujo
Eversource (Gas)
PO Box 270
Hartford, CT 06141

Kathy Fay
Neighborhood Housing Services of New Haven
333 Sherman Ave,
New Haven, CT 06511

Walter Szymanski
Courtesy Attendee Representing Connecticut Municipal Electric Energy Cooperative
30 Stott Avenue
Norwich, CT 06360

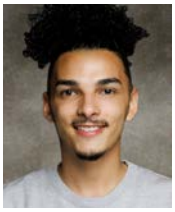
Neil W. Beup
Linde
10 Riverview Road
Danbury, CT 06810
Served as Chair until September 2023

Anne-Marie Knight
Black Business Alliance
1201 Boston Post Road
Milford, CT 06460

Jack Traver
Traver IDC
151 Homer Street
Waterbury, CT 06704

Stephen J. Bruno
Eversource (Electric)
PO Box 270
Hartford, CT 06141

Melissa Kops
City of New Haven
200 Orange Street, Suite 503
New Haven, CT 06510



Jayson Velazquez
Acadia Center
22 Oak St., Suite 202
Hartford, CT 06106
Joined the Board in September 2023

Hammad Chaudhry
United Illuminating
60 Marsh Hill Road
Orange, CT 06477

Donald L. Mauritz
Courtesy Attendee Representing Wallingford Electric Division
100 John Street
Wallingford, CT 06492

John Viglione
Vice-Chair
Economist
State of Connecticut
Ten Franklin Square
New Britain, CT 06051

Katie Dykes
Commissioner, Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106

Karraine Moody
Designee, Residential Consumer Representative
Habitat for Humanity North Central CT
Served until October 2023

John Wright
Designee, Office of The Attorney General
165 Capitol Avenue
Hartford, CT 06106

Amanda Fargo-Johnson
CT RC&D / CT Farm Energy Program
1066 Saybrook Road
PO Box 70
Haddam, CT 06438

Larry Rush
Avangrid (Southern Connecticut Gas & Connecticut Natural Gas)
60 Marsh Hill Road
Orange, CT 06477

At the conclusion of 2023, there were only 15 Board members. We are still waiting for DEEP to appoint the 16th and 17th members.