

Energy Efficiency Board 2022 Programs and Operations Report

MARCH 1, 2023



Empowering you to make
smart energy choices



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Chair Letter



National Leader in Energy Efficiency

On behalf of the Connecticut Energy Efficiency Board (the Board), we are honored to deliver the 2022 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 Energy Efficiency Plan (Plan). Our conservation and load management (C&LM) programs, delivered under the Energize ConnecticutSM initiative, remain the most cost-effective policy tool to protect the environment, promote economic development, and provide energy security.



More than
494,138
instances of
participation



Energy-saving
programs
generated **\$79.6**
million in savings

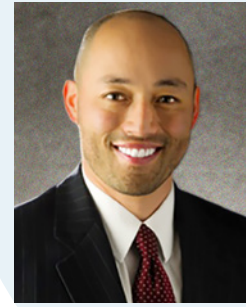


These savings
eliminated the need
for a **59** megawatt
(MW) plant

On both the residential and commercial fronts, we implemented emissions-reduction strategies to help customers construct energy-efficient buildings, weatherize properties, install high efficiency appliances and heating and cooling equipment, and implement sustainable operations. These offerings were coupled with financing options from the Companies (Eversource, United Illuminating, Southern Connecticut Gas, and Connecticut Natural Gas, subsidiaries of AVANGRID, Inc.) and the Connecticut Green Bank.

As part of the Department of Energy & Environmental Protection's (DEEP) review of the Plan, we responded to 25 conditions of approval related to the C&LM programs and modified programs as directed. Two notable advancements include our plan to transition the Residential New Construction program to an all electric offering by July 2023, and the launch of a commercial and industrial pilot to create a pathway for customers to provide verification of savings for projects rather than relying upon traditional evaluation methods.

DEEP launched its Residential Energy Preparation Services program to break down the silos across state programs and address low-income households previously barred from weatherization. This effort should increase the number of participants in the Home Energy Solutions - Income Eligible program and help the state meet its goal of 80 percent of homes weatherized by 2030.



The Board hired a diversity, equity, and inclusion (DEI) consultant to analyze and ensure fair and equitable access to energy efficiency. The consultant evaluated how the C&LM programs align with DEEP's Equitable Energy Efficiency (E3) initiative and the Board will use their findings to develop equity-based metrics.

In 2022, we welcomed four new Board members who brought fresh perspectives to our decision-making process. Our purpose and Board member information 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 2023.

We explored leveraging federal funding from the *American Rescue Plan Act*, the *Infrastructure Investment and Jobs Act*, and the *Inflation Reduction Act* to further the goals of the C&LM programs. The Board submitted eight guiding principles for DEEP to consider as they evaluate the braiding of federal funds with C&LM programs to achieve the state's energy, weatherization, and decarbonization goals. This is an issue upon which we will continue to focus so as to ensure maximization of any and all available funding for energy efficiency.

Our successes can only be achieved with the state's highly skilled workforce of 34,106 energy efficiency professionals who we supported through trainings and certifications.

As you read this report, the Board has already started to work on carrying our momentum forward into 2023. Our climate-forward framework will promote energy affordability, equity, and decarbonization.

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Executive Summary

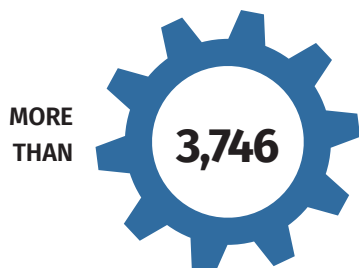
Efficiency programs help mitigate climate change by reducing greenhouse gas emissions and harmful air pollutants, resulting in improved public health, and protecting the environment. Improving building efficiency lowers energy bills, reduces operating costs, and drives demand for a highly skilled efficiency workforce, all of which make positive contributions to Connecticut's economy.

Decarbonization

A quarter of Connecticut's economy-wide carbon emissions are a result of fossil fuel combustion in residential and commercial buildings. Building decarbonization is the concept to design new construction and retrofit existing buildings so they contribute zero or near zero carbon emissions in their operations and construction materials. Key decarbonization strategies include making efficiency improvements in buildings and appliances, use of clean electricity supply resources and demand flexibility, and the substitution of renewable thermal technologies for fossil-fuel-reliant equipment.



Efficiency is the key to building decarbonization. The Companies promoted sustainable construction and retrofit programs, encouraging customers to install emissions-reduction measures. Calculation tools, incentives, and increased contractor trainings were deployed to facilitate more weatherization, heat pump installations, and demand management projects. 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.



MORE THAN

3,746

PROJECTS FUNDED THROUGH ENERGIZE CT LOANS AND FINANCING PROGRAMS¹

Equity

The Companies consider social justice and equity critical initiatives. The Board prioritized inclusivity and reaching historically under-resourced communities who are the most affected by climate change, poor air quality, and high energy burdens. Program resources were directed through the Community Partnership Initiative (Partnership) to increase participation in the Companies' residential and small business programs with additional funding to outreach projects located in Connecticut's distressed municipalities. In 2022, Round 1 of the Partnership funded 9 community-based projects to increase participation in residential and small business programs. Round 2 launched in December 2022, with a call for outreach projects planned for the coming year in distressed municipalities and communities with environmental justice census blocks.



The Board's newly hired DEI consultant conducted a preliminary assessment to gain a deeper understanding for the 'state of equity' within efficiency and to align C&LM programs with the E3 proceeding. The Board will work with the consultant to create an Equity Metrics Framework, identify stakeholders who should be engaged, identify priority communities, define and measure success and stay on track, and make stakeholders accountable to achieving meaningful outcomes.



COMMUNITY PARTNERSHIP INITIATIVE PROJECTS CONDUCTED IN 8 COMMUNITIES

The *Inflation Reduction Act of 2022* (IRA) is offering funding, programs, and incentives to accelerate the transition to a clean energy economy. IRA supports the Justice40 Initiative (Justice40), an effort to deliver at least 40 percent of the overall benefits from federal investments in climate and clean energy to disadvantaged communities. The Board is working to align its equity analyses of the state's programs with Justice40 principles.

¹ This number reflects number of energy efficiency projects funded through the following loans/financing programs: Micro Loan (HES), Heating Loan, Small Business and Municipal Loan, Smart-E Loan, and C-PACE.



Energy Affordability

Inflation and rising energy costs are major economic concerns for Connecticut residents, businesses, and municipalities. Efficiency is the most cost-effective policy tool to lower energy bills, reduce maintenance costs, and in the long term, decrease utility rates.



In 2022, the Companies and Board worked with DEEP to remove health and safety barriers to weatherization (through the Residential Energy Preparation Services program), partnered and funded community-based organizations to promote C&LM programs, and prioritized deep saving measures, such as insulation, air sealing, duct sealing, and high efficiency heating and cooling systems. Customers are encouraged to install efficient heating and cooling equipment, weatherization measures, and high efficiency 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 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 burdens are disproportionately higher for low-income households, the Companies conducted targeted outreach to disadvantaged neighborhoods, as well as residential customers in arrears.

National Recognition

The American Council for an Energy-Efficient Economy's 2022 State Energy Efficiency Scorecard ranked Connecticut ninth in the nation for efficiency programs and policies.

In April 2022, the Companies were recognized with the Environmental Protection Agency's 2022 ENERGY STAR® Partner of the Year Sustained Excellence Award for the development of a pilot to convert customers using oil or propane heat to air source heat pumps, maximizing home performance measures with little to no cost for low-income customers. The award also recognized the 500 ENERGY STAR



certified homes and apartments across the state, and the additional incentives offered for ENERGY STAR certified lab grade refrigerators and freezers and ultra-low temperature freezers to help 200+ healthcare research institutions in vaccine distribution and storage efforts.



Financing

Connecticut's efficiency financing solutions empower customers to invest in energy-saving improvements. The popular Small Business Energy Advantage loan was expanded to include financing for electric vehicle chargers. The Board continued to work closely with the CT Green Bank and other financial institutions to promote financing programs for efficiency, including C-PACE (Commercial Property-Assessed Clean Energy) and Smart-E loans.



The Board and the CT Green Bank's Board of Directors also collaborated on the 2022 Connecticut Clean Energy Industry Report.²

Evaluation

Independent evaluation, measurement, and verification are integral to the efficacy and cost effectiveness of Connecticut's efficiency programs. 2022 evaluations verified program savings, identified ways to improve program delivery and results, and helped expand the reach of programs by identifying barriers to participation. Evaluations verify program savings, identify ways to improve program delivery and results, and help expand the reach of programs by identifying barriers to participation. Studies included the evaluation of heat pump technologies, commercial and industrial program processes, appliance recycling, and code compliance.



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

² The 2022 CT Clean Industry Energy Report reflects 2021 data. This in-depth analysis of the state's clean energy workforce shows the economic benefits of efficiency programs.

Community Outreach and K-12 Education

2022 HIGHLIGHTS



Energize CT Energy in Action Mobile Exhibit

In March 2022, the Energy in Action Mobile exhibit “hit the road” to engage children, educators, and families in how to save energy and money, and mitigate climate change. The entertainment-based experience highlights decarbonization, weatherization, energy-efficient technologies, and clean energy careers. Thoughtfully designed presentations feature hands-on lessons to facilitate understanding of the benefits of energy efficiency. Priority is given during exhibit bookings to host sites located in under-resourced communities. This ensures the benefits of energy efficiency are shared with those who stand to benefit the most from the programs. In 2022, the Energy in Action exhibit traveled to 106 schools and community-based events, of which approximately 60 percent of the events were in distressed municipalities or environmental justice communities.



and certifications with the Connecticut Technical Education & Career System (CTECS) to prepare more students for the efficiency workforce. In the spring, 161 CTECS seniors passed their Green Professional Building Skills Training examination, 54 CTECS juniors and seniors earned their Building Science Principles certificate, 6 students earned their Healthy Homes Principles certificate from the Building Performance Institute, and more than 1,250 CTECS students attended four networking fairs to explore career opportunities.



K-12 Education

In 2022, the Companies provided engaging curriculum, presentations, and professional development workshops empowering K-12 students and educators to be agents of change in their communities. The annual **eemarks** Student Contest was held asking K-12 students to answer grade-level prompts about saving energy and climate change. Entries included persuasive speeches, posters, book reviews, and community based projects.



Community Partnership Initiative

In 2022, the Partnership funded nine projects in eight Connecticut communities including Bethel, Branford, Hamden, New London, Middletown, Waterbury, West Hartford, and Wilton. The initiative leverages the experience, trusted relationships, and knowledge of local groups, municipalities and nonprofits to further efficiency adoption and educate residents and businesses on available solutions.

The Town of Branford and the Branford Clean Energy Committee championed the Small Business Energy Advantage program through the “Branford Business Energy Efficiency” campaign. As a result of their outreach and educational efforts, nearly 60 small businesses in Branford either completed or ended the year with an energy efficiency project underway. The “Energy Smart New London” campaign, championed by the City of New London, focused on increasing participation in the Home Energy Solutions-Income Eligible program. The campaign drove the highest rate of assessments in the city in more than six years.

“City residents are struggling with rising gas and food prices. Helping residents minimize expenses couldn’t have come at a better time.”
City of Middletown Mayor Ben Florsheim

The Green Sustainable Technical Education Program (Green STEP) expanded its technical trainings



32,795 K-12 students reached*



24 workshops for **252** K-12 educators



106 mobile exhibit tours in **59** communities**



103 presentations conducted for **10,439** students



105 entries in 2022 **eemarks** Student Contest (**25** winners)

* Includes mobile exhibit tours, in-school presentations, and student contests.

** Reaching 11,727 students in schools and 4,549 adults and 10,524 students at community events.

Residential Energy Solutions



In 2022, Connecticut's efficiency solutions helped residential customers lower utility bills, reduce energy consumption, and increase home comfort. Households benefit from efficiency improvements made to building envelopes and systems, such as air and duct sealing, insulation, and windows. Customers receive incentives to upgrade electrical appliances to ENERGY STAR certified models, replace existing heating, cooling, and water heating with high efficiency systems, to install smart thermostats, for sustainable new construction, appliance recycling, and for participating in behavioral and demand response strategies.

In Connecticut, energy assessments and in-home weatherization services are offered to single-family and multifamily (5+ units) properties (no program fee for income-qualified customers). The Home Energy SolutionsSM and Home Energy Solutions-Income Eligible programs address building inefficiencies and offer holistic energy solutions. Program technicians install efficiency measures and educate customers regarding additional energy-saving opportunities at the programs' signature kitchen table wrap-up.



Decarbonization

As momentum grows to reduce on-site fossil fuel combustion, like furnaces and boilers, many homeowners are exploring heat pumps as an energy-saving solution. To encourage the adoption of heat pumps, the Heat Pump Installer Network was developed to give heat pump installers access to sales tools including customer brochures, continued learning and training resources, and rebates and financing information. Additional efforts included the development of a digital concierge service and efforts to create a Qualified Insulation Installer Network by establishing best practices and training for contractors.



When Martin and Ruth Spence purchased their 2,440 sq. ft. home in Bethel, their \$400 monthly energy bills convinced them to make immediate energy improvements to stay within their retirement budget. To save energy, they installed a single loop geothermal heat pump to work in conjunction with a recently installed solar photovoltaic system.

After considering the energy generated from their solar photovoltaic system, the new geothermal system reduced their heating and cooling costs to just \$10-20 per month.



Recently, **Remington Street Apartments, an 18-unit building in Bridgeport,** participated in the Multifamily Initiative, a customized solution for multifamily buildings or complexes with 5+ units. An energy assessment of the building identified numerous opportunities to make the building more efficient and comfortable including the installation

of 18 cold climate ductless heat pumps, 30 ENERGY STAR triple-pane windows, and ENERGY STAR LEDs in dwelling units and common areas. Over the lifetime of the efficiency measures, they will have reduced the building's energy consumption by approximately 1.24 million kWh, equivalent to the carbon sequestration of 14,532 tree seedlings grown for 10 years.



\$30.8 Million in equivalent energy savings through Residential Energy Solutions*



41,040 homes weatherized (market-rate and low-income single and multifamily homes)



13,220 upgrades to existing multifamily units (market-rate and low-income multifamily homes)



6,452 low-income households served (single-family homes —included in total above)**



25,786 heating and cooling systems installed



3,913 hot water systems installed



78,773 non-lighting products sold (Retail and Online Marketplace)



662 single-family, energy-efficient homes built



1,616 new multifamily energy-efficient units built



1,116,272 LED bulbs sold

* 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

2022 Residential Highlights



Weatherization programs help save energy and reduce residential customers' bills. However, there are health and safety barriers, such as mold and asbestos, which can prevent homes from receiving weatherization services until they are rectified. The cost to mitigate these issues can be a significant burden for low-income households. To address this issue, the Governor, DEEP, Board, Companies, Department of Social Services, and other stakeholders designed the innovative **Residential Energy Preparation Services (REPS) program**.⁶ In 2022, DEEP hired a REPS program contractor, the International Center for Appropriate and Sustainable Technology (ICAST), who worked with the Companies to create customer collateral and implement processes to engage low-income customers. Addressing these barriered homes allows them to participate in C&LM programs and save energy, which will help meet the state's goal of 80 percent of homes weatherized by 2030.

In the Northeastern United States, there is a regulatory and policy movement toward all-electric new construction. Effective July 2023, the Residential New Construction program will transition to an all-electric offering to help meet the state's decarbonization goals. These goals require residential buildings to be built with advanced efficient electric technologies, as well as provide **readiness capabilities for photovoltaic systems, demand response, battery storage, and electric vehicle charging**. The Companies continued to promote contractor readiness through technical trainings held in collaboration with the CT Passive House Alliance and other trade ally partnerships.

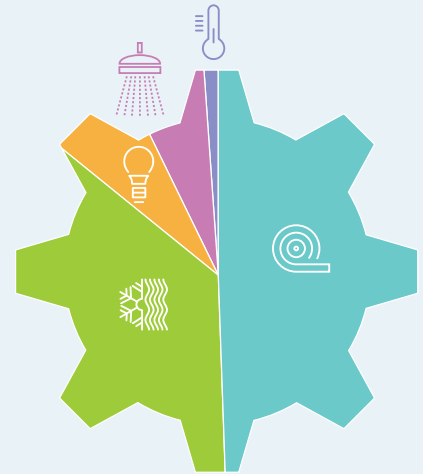
Currently, customer demand for Connecticut's energy efficiency programs exceeds the level of C&LM funding available. The Board, DEEP, and the Companies are exploring how to braid IRA funds into the C&LM programs and how the C&LM programs will interact with the Weatherization Assistance Program (WAP) now that it has more federal funding.

Susan Weretelnik, Waterbury

HOME ENERGY SOLUTIONS-INCOME ELIGIBLE

Budgeting for home repairs on a senior fixed income can be stressful. After years of spending money on do-it-yourself solutions for her 1,024 sq. ft. condominium, Ms. Weretelnik received a direct mail piece about Home Energy Solutions-Income Eligible and applied. She qualified for the program. After an energy assessment, technicians patched a hole in her basement and added 1,000 sq. ft. of insulation to her attic floor and basement ceiling. Her 15-year-old inefficient electric water heater was replaced with a high efficiency heat pump water heater and triple-pane windows and sliding glass doors were installed. With the home's comfort improved, Ms. Weretelnik no longer must wear her winter coat inside to stay warm. She is projected to save \$23,012 and 73,072 kWh over the lifetime of the measures (savings lifetime is the length of time that one or more efficiency measures save energy).

Here is how energy was saved in residential¹ homes:



- 49% from Insulation/Building Envelope²
- 36% from Heating and Cooling³
- 8% from Lighting
- 6% from Hot Water⁵
- 1% Refrigeration/Other⁴

¹ Includes 41,040 single and multifamily homes served, plus rebates and retail products

² Includes 2,016 insulation rebates

³ Includes 25,786 heating and cooling systems installed (including 12,950 heat pumps)

⁴ Includes 19,236 refrigerator and freezer rebates

⁵ Includes 3,913 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>

"I am so ecstatic! There is no way I would have been able to afford any of this on my own. I would've bought the less efficient, cheaper products on the market and even that would've been a financial burden."

Susan Weretelnik

Commercial & Industrial Energy Solutions



Connecticut's commercial and industrial (C&I) energy efficiency solutions serve businesses of all sizes, including municipal and state facilities, industrial customers, colleges and universities, nonprofits, churches, and hospitals. This diverse range requires flexibility in the efficiency solutions offered to each market segment, including retrofit and renovation, new construction, strategic energy management (SEM), and demand response.

In 2022, a collaborative group made up of the Board, the Companies, Board consultants, and C&I customers developed an alternative pathway for large energy use customers to provide verification of savings for projects rather than relying upon traditional evaluation methods. This new approach allows customers to take on more responsibility with respect to calculating, measuring, and verifying savings for large C&I custom projects.

Manufacturing

Several C&I solutions help manufacturers realize energy savings and productivity gains. Through the Process Reengineering for Improved Manufacturing Efficiency (PRIME) initiative, manufacturers receive training in lean manufacturing techniques to optimize energy use, identify inefficiencies in their manufacturing processes, and to improve business operations. These benefits can then be reinvested in research and development, new product lines, and hiring additional workers. Through the new Small Manufacturer pilot, these solutions are now available to manufacturers with under 150 kW peak demand.

Strategic Energy Management

SEM is a multi-year customer engagement approach to align sustainability and efficiency with business practices to achieve increased profitability, improved operations, greater resiliency, and long-term benefits. Rather than a one-by-one project approach, SEM gives businesses the tools to take a more strategic approach to implementing continuous efficiency processes and systems by equipping staff with the resources to impact energy consumption through behavioral and operational changes.

Founded in 1920, the University of New Haven has steadily grown to become a top-tier comprehensive world-class university. The University moved to its current West Haven campus in 1960 and over the past decade has expanded significantly while maintaining a flat growth in its building's energy consumption and greenhouse gas emissions. This was accomplished largely through larger scale efficiency projects incorporated in new facilities and equipment as part of the University's expansion. In 2022, the University worked with United Illuminating (UI) and a SEM program vendor to find unseen energy opportunities including the optimization of temperature setpoints on HVAC systems throughout the campus, repairing sensors and other malfunctioning equipment, and reviewing Building Automation System setpoints and making adjustments to improve overall efficiency. These small modifications will help the University save 348,000 kWh a year or \$37,000 annually on energy costs.



\$48.8 Million in equivalent energy savings through Commercial & Industrial Energy Solutions*



1,051 small business projects



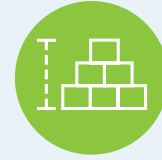
224 microbusiness projects in distressed municipalities (included in total above)



2,468 municipal and state projects



268 heat pump technologies installed



729 new construction projects completed



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



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

** Based on annual savings expected in Connecticut*

2022 C&I Highlights



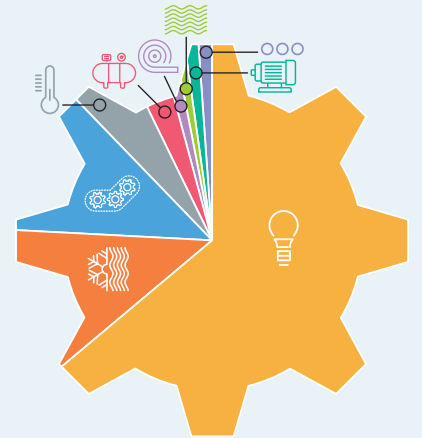
Retrofit

C&I lifetime energy savings were driven primarily by retrofit programs—Energy Opportunities and Small Business Energy Advantage. These retrofit solutions incentivize the installation of deep and comprehensive efficiency projects, such as upgrading heating, cooling, lighting, and energy management systems. Multiple measure projects drive additional savings and energy-efficient incentives are tiered to encourage comprehensiveness. The retrofit solutions also supported more weatherization projects in the C&I sector through calculation tools and incentives.

Brook + Whittle, Guilford

As a leading North American manufacturer of premium label solutions, **Brook + Whittle's** traditional printing processes depended on energy-intensive UV lights and high-wattage mercury vapor lamps. To reduce their Guilford facility's carbon footprint, they upgraded exhaust fans, converted mercury vapor lamps to LEDs, and updated three printing line presses. This reduced emissions by 4,775 tons (CO₂), 5,531 pounds (SO_x), and 6,519 pounds (NO_x). The new LED printing line system reduced energy consumption by 50 percent and increased the lamp life from 2,500 hours to 25,000 hours. Brook + Whittle's savings on energy, material, and maintenance costs were reinvested into other facility improvements, including adding four new printing presses in their Connecticut plants, creating over 30 jobs. The LED UV printing technology increased production pace, cutting project turnaround times in half while maintaining consistent quality.

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



- 64% from Lighting
- 12% from Heating and Cooling
- 12% from Process
- 5% from Refrigeration
- 3% from Compressed Air
- 1% from Building Envelope
- 1% from Hot Water
- 1% from Motors
- 1% from Other

* Based on annual savings expected in Connecticut

Net Zero Energy Buildings

A Net Zero Energy Building designation means the amount of energy produced by on-site renewable energy sources is intended to meet or exceed the amount of energy used by the facility when averaged over one year. The Energy Conscious Blueprint program is designed to move the commercial new construction marketplace toward net zero energy buildings with low energy use intensity (EUI) ratings. EUI is expressed as the amount of energy a building consumes per square foot over a one-year period and can be thought of as a miles per gallon rating of a building. If a building's EUI is low, then it signifies energy efficiency.

The long vacant Pirelli Building on New Haven's Long Wharf has transformed into the **Hotel Marcel, a Net Zero Energy and Leadership in Energy and Environmental Design (LEED) Platinum certified design hotel**. Becker + Becker, the developer of the country's first known electric powered full-service hotel, installed an electric variable refrigerant flow (VRF) heat pump system, all induction commercial cooking equipment, an advanced energy recovery ventilation system, self-shading windows, ozone laundry system, robust thermal insulation throughout the building envelope, and interior lighting controlled and powered by ethernet wired fixtures. The Hotel Marcel installed several photovoltaic systems to generate all the energy needed to power the building. The efficiency measures are expected to reduce the hotel's operational energy usage by 809,482 kWh per year. After one year of operations, UI engineers will review the building's performance and determine if the actual energy use is consistent with the projections made by the building energy model simulation. Validating the hotel's efficiency will provide the owners with an additional post-occupancy incentive and ensures that the building performs to its low EUI design standards.



Activities in 2022 Produced Substantial Economic and Environmental Benefits for Residents, Businesses, and Municipalities

Demand Management

Energy efficiency and demand management programs reduce overall energy consumption and reduce peak demand on the grid, providing environmental and financial benefits to Connecticut residents and businesses. Active demand response programs require customers 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 or to have their electric vehicle charging shifted to off-peak times. Connecticut’s demand management offerings incentivize these brief reductions in customer load during targeted periods of high system demand.



In 2022, more than 42,492 units were enrolled in the Companies’ residential and C&I active demand response programs, achieving 92.9 MW savings. These units were enrolled in the smart thermostat, electric vehicle charger, battery storage, and load curtailment (C&I only) offerings. Eversource and UI coordinated the delivery of energy storage and electric vehicle charger offerings with the Public Utilities Regulatory Authority’s grid modernization dockets.

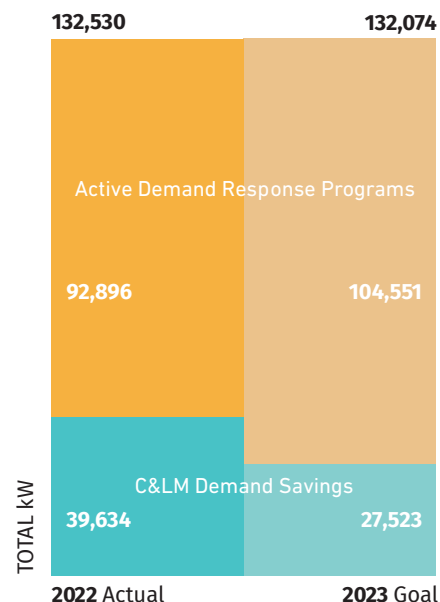
Workforce Development

Connecticut’s C&LM programs support a robust workforce of 34,106 energy efficiency professionals’ and workers are then reinvested in local communities, making it an economic win for all residents, businesses, and municipalities.



The Board and Companies continued to make progress on the workforce deliverables outlined in the Plan, including growing the efficiency workforce and in recruiting/training workers from underrepresented communities. The Companies added extra weighting for certified minority/women/veteran-owned businesses when evaluating and scoring competitive vendor proposals.

In 2022, the Companies began a partnership with a local supplier diversity organization to reach more diverse suppliers. Their partner, a local nonprofit, provided workforce development including technical training, soft skills training, and wrap around support. The Companies provided funding for the technical training. To help facilitate connections between new recruits and efficiency employment opportunities, the Companies began to develop an online job board associated with EnergizeCT.com. Research studies are ongoing to better understand the training needs of Connecticut’s workforce and to help develop a strategic workforce development plan.



Air Emissions	Estimated Annual Savings 2022 (Tons) ²			Estimated Lifetime Savings 2022 (Tons) ²		
	Electric	Natural Gas	Fuel Oil and Propane	Electric	Natural Gas	Fuel Oil and Propane
Sulfur oxides (SO _x)	3	—	—	26	2	7
Nitrous oxides (NO _x)	15	23	22	143	377	456
Carbon dioxide (CO ₂)	95,382	31,430	26,808	918,599	508,718	550,201

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

² CO₂ emissions are in short tons.

Protect the Environment



A primary objective of the Board is to protect the environment, reduce air pollution, and protect public health. Energy efficiency programs are essential in supporting these objectives. When fossil fuels are burned at traditional power plants or on-site at a home or business, they release greenhouse gases and contribute to air pollution. Efficiency programs reduce carbon dioxide and other greenhouse gas emissions, such as chlorofluorocarbons (from refrigerants), nitrous oxides, and sulfur oxides.

Approximately 25 percent of Connecticut’s economy-wide carbon emissions are a result of fossil fuel combustion in residential and commercial buildings¹. 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 Savings (Millions)	Lifetime Savings (Millions)	Number of Projects & Rebates ²	Annual CO ₂ ³ Emissions Reduced (Tons)	Annual MMBtus Reduced (Thousands)
Home Energy Solutions (including insulation and windows)	\$ 11.00	\$ 227.90	36,155	25,951	334,791
Home Energy Solutions – Income Eligible	\$ 5.67	\$ 102.42	21,138	13,713	179,158
Retail Products	\$ 5.12	\$ 23.64	238,241	7,736	69,913
HVAC and Water Heating Equipment	\$ 6.39	\$ 106.20	104,091	15,153	199,392
Residential New Construction	\$ 1.92	\$ 43.61	2,403	3,920	49,187
Residential Behavior	\$ 0.69	\$ 1.37	44,713	1,741	23,312
Small Business	\$ 4.04	\$ 36.08	1,051	6,586	60,726
Business and Energy Sustainability	\$ 1.59	\$ 9.20	147	5,436	76,022
Existing Buildings (Mid- and Large-Sized Businesses)	\$ 36.65	\$ 303.99	2,978	61,223	582,544
New Construction/Equipment (Business)	\$ 6.53	\$ 91.43	729	12,160	126,676
Total	\$ 79.59	\$ 945.83	494,138	153,620	1,701,721

¹ The 2018 Connecticut Greenhouse Gas Emissions Inventory Report and DEEP website.

² Additionally, there are 24,649 customers who participated in active demand response programs by enrolling 42,492 units.

³ Annual CO₂ 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 kWh Saved	Lifetime kWh Saved	Peak Demand kW Saved	Annual ccf Saved	Lifetime ccf Saved	Annual Gallons (Oil & Propane) Saved	Lifetime Gallons (Oil & Propane) Saved	Annual Dollars Saved	Lifetime Dollars Saved	Annual CO ₂ (Tons) Saved
Andover	\$ 125,559	63,085	626,656	22	34	511	5,395	110,197	\$ 39,072	\$ 637,832	76
Ansonia	\$ 972,220	606,938	6,112,208	113	40,187	831,500	5,090	114,149	\$ 225,823	\$ 3,207,638	542
Ashford	\$ 351,023	269,835	4,445,067	27	9	128	2,482	48,640	\$ 77,338	\$ 1,314,204	129
Avon	\$ 771,422	597,583	5,704,718	125	7,994	132,819	23,097	463,398	\$ 262,475	\$ 3,708,423	525
Barkhamsted	\$ 86,343	61,208	646,860	12	236	3,534	2,758	57,225	\$ 27,431	\$ 414,592	52
Beacon Falls	\$ 403,616	503,608	4,268,742	142	20,502	483,876	8,767	170,865	\$ 189,921	\$ 2,498,162	411
Berlin	\$ 2,499,793	6,691,291	48,614,723	1,067	24,620	525,986	21,083	455,105	\$ 1,760,612	\$ 14,593,453	2,889
Bethany	\$ 277,250	159,581	1,359,769	27	—	—	12,424	268,366	\$ 95,336	\$ 1,549,034	191
Bethel	\$ 1,000,258	1,112,545	11,223,568	199	14,460	239,995	16,529	335,694	\$ 367,566	\$ 4,638,986	694
Bethlehem	\$ 167,106	103,466	1,686,119	16	—	—	5,963	123,795	\$ 51,482	\$ 957,848	97
Bloomfield	\$ 2,168,821	3,881,825	30,033,945	639	37,690	813,000	23,307	503,057	\$ 1,108,357	\$ 10,850,233	1,971
Bolton	\$ 271,315	158,026	1,696,330	29	—	—	6,625	131,398	\$ 68,464	\$ 1,008,648	128
Bozrah	\$ 920	—	—	—	104	1,956	—	—	\$ 139	\$ 2,778	1
Branford	\$ 1,821,686	2,699,201	23,988,791	425	39,112	816,542	13,549	262,659	\$ 775,280	\$ 8,258,419	1,421
Bridgeport	\$ 4,085,341	6,799,755	68,703,062	961	145,132	2,706,246	20,668	443,037	\$ 1,955,621	\$ 22,787,795	3,741
Bridgewater	\$ 92,068	28,475	494,616	4	—	—	2,023	39,027	\$ 16,262	\$ 301,131	33
Bristol	\$ 3,173,810	2,454,923	23,319,886	430	56,437	1,109,040	69,705	1,436,978	\$ 992,781	\$ 13,814,658	2,027
Brookfield	\$ 811,692	1,325,991	11,890,255	221	5,183	84,361	16,638	344,918	\$ 406,943	\$ 4,599,927	712
Brooklyn	\$ 233,744	220,631	2,053,797	34	1,635	30,342	6,152	119,201	\$ 84,171	\$ 1,091,326	159
Burlington	\$ 458,701	218,853	2,547,483	45	7,582	168,193	18,017	377,751	\$ 141,375	\$ 2,489,210	299
Canaan	\$ 91,221	113,454	1,320,094	19	—	—	1,927	41,001	\$ 36,532	\$ 510,430	64
Canterbury	\$ 141,673	90,814	1,022,853	16	—	—	5,150	86,981	\$ 45,765	\$ 649,049	90
Canton	\$ 403,211	488,952	4,802,364	107	2,161	43,221	15,955	325,499	\$ 193,525	\$ 2,686,042	360
Chaplin	\$ 76,212	34,490	475,015	7	—	—	2,307	49,506	\$ 19,095	\$ 345,857	38
Cheshire	\$ 1,687,983	1,523,658	14,977,081	286	24,988	363,277	46,860	954,835	\$ 618,552	\$ 8,520,668	1,229
Chester	\$ 179,994	230,363	1,933,007	39	—	—	5,053	108,095	\$ 78,098	\$ 936,219	134
Clinton	\$ 616,801	584,793	6,440,744	93	7,969	82,686	19,659	410,554	\$ 240,012	\$ 3,496,401	463
Colchester	\$ 678,309	623,712	5,484,273	112	117	2,596	20,336	406,850	\$ 242,598	\$ 3,147,331	438
Colebrook	\$ 94,584	37,984	428,774	8	37	558	3,824	83,328	\$ 26,672	\$ 483,745	55
Columbia	\$ 159,757	133,888	1,557,550	28	—	—	5,496	108,605	\$ 57,691	\$ 876,728	109
Cornwall	\$ 93,770	48,901	667,260	8	—	—	2,909	54,595	\$ 25,009	\$ 408,616	48
Coventry	\$ 363,033	156,948	2,347,299	26	70	1,468	15,515	327,281	\$ 107,113	\$ 2,023,410	214
Cromwell	\$ 556,717	794,567	8,075,096	145	9,925	190,540	18,217	407,244	\$ 283,749	\$ 3,940,007	520
Danbury	\$ 3,924,404	3,580,427	35,267,694	564	305,029	4,097,417	40,376	817,318	\$ 1,469,180	\$ 18,215,507	3,730
Darien	\$ 520,011	273,686	2,670,865	66	10,838	203,210	19,593	388,717	\$ 170,309	\$ 2,708,552	379
Deep River	\$ 121,290	129,515	1,304,677	20	—	—	5,621	124,093	\$ 57,134	\$ 883,100	108
Derby	\$ 495,641	796,211	8,423,014	93	35,156	416,042	5,656	124,992	\$ 266,956	\$ 3,209,009	582
Durham	\$ 266,157	331,852	3,923,341	71	17	654	7,753	152,158	\$ 116,221	\$ 1,651,795	207
East Granby	\$ 257,096	281,767	2,280,138	54	1,238	21,621	6,486	129,091	\$ 99,201	\$ 1,157,030	179



CASE STUDY

Jessica and Dana Albrycht, Simsbury: As new homeowners, Jessica and Dana Albrycht were shocked at their Simsbury home's high monthly heating bills and quickly investigated high efficiency heating system replacements. Through the Home Energy Solutions program, technicians sealed drafty areas, installed light-emitting diodes (LEDs), and upgraded the attic's insulation. They received a \$3,000 rebate for installing an air source heat pump and an additional \$3,000 in LED lighting and insulation rebates. They are expected to save 8,886 kWh in energy and 57 gallons of oil annually.

Town	Energy Incentives	Annual kWh Saved	Lifetime kWh Saved	Peak Demand kW Saved	Annual ccf Saved	Lifetime ccf Saved	Annual Gallons (Oil & Propane) Saved	Lifetime Gallons (Oil & Propane) Saved	Annual Dollars Saved	Lifetime Dollars Saved	Annual CO ₂ (Tons) Saved
East Haddam	\$ 352,300	426,599	3,921,625	81	—	—	10,426	206,874	\$ 150,087	\$ 1,871,425	263
East Hampton	\$ 521,970	418,393	4,690,572	67	1,351	27,265	16,292	328,940	\$ 177,013	\$ 2,660,369	333
East Hartford	\$ 3,397,487	4,189,428	33,513,013	746	140,295	1,768,999	31,827	648,891	\$ 1,360,263	\$ 13,737,166	2,833
East Haven	\$ 1,410,869	2,022,575	21,267,295	345	36,931	643,290	11,170	238,516	\$ 595,837	\$ 7,229,643	1,125
East Lyme	\$ 1,156,827	1,292,144	22,565,962	145	5,865	71,678	19,297	400,993	\$ 410,336	\$ 7,437,847	724
East Windsor	\$ 713,524	922,161	7,315,765	187	19,801	372,786	11,764	246,731	\$ 304,936	\$ 3,432,260	597
Eastford	\$ 35,044	63,740	532,414	15	—	—	1,120	23,136	\$ 20,358	\$ 227,846	34
Easton	\$ 224,965	155,648	1,588,068	39	1,934	39,339	9,452	198,299	\$ 83,994	\$ 1,353,504	173
Ellington	\$ 902,475	696,801	8,049,039	123	9,852	154,889	20,682	432,571	\$ 276,160	\$ 4,125,607	538
Enfield	\$ 2,407,834	3,278,299	29,368,991	549	52,459	1,063,904	38,294	795,893	\$ 1,047,837	\$ 12,363,824	1,991
Essex	\$ 309,684	284,929	3,058,436	42	6,899	167,925	7,863	160,264	\$ 114,647	\$ 1,718,555	235
Fairfield	\$ 2,045,179	3,280,889	35,967,445	480	46,184	981,663	18,567	392,799	\$ 951,097	\$ 12,049,961	1,747
Farmington	\$ 1,341,576	1,992,290	16,975,726	330	46,114	477,833	21,185	423,234	\$ 644,856	\$ 6,748,306	1,270
Franklin	\$ 60,517	123,017	952,115	22	186	2,790	1,311	26,407	\$ 36,373	\$ 359,399	62
Glastonbury	\$ 1,179,895	1,427,130	11,059,636	258	17,144	348,112	25,440	498,957	\$ 486,523	\$ 5,448,441	913
Goshen	\$ 127,058	67,060	938,208	12	—	—	3,173	59,839	\$ 30,235	\$ 489,932	56
Granby	\$ 581,020	544,177	9,831,877	58	—	—	15,692	312,268	\$ 203,836	\$ 3,824,322	369
Greenwich	\$ 2,956,409	3,527,426	37,380,799	790	57,382	997,359	20,171	361,736	\$ 1,031,852	\$ 12,239,627	1,918
Griswold	\$ 152,134	105,959	1,306,818	15	—	—	4,649	88,087	\$ 46,766	\$ 717,376	88
Groton	\$ 267,380	91,607	1,177,208	12	23,698	257,571	1,547	33,746	\$ 61,152	\$ 807,389	202
Guilford	\$ 1,746,246	1,631,313	21,169,821	291	11,726	204,810	36,909	763,142	\$ 579,857	\$ 8,897,386	1,069
Haddam	\$ 326,575	194,358	2,167,980	40	—	—	8,496	164,504	\$ 85,744	\$ 1,272,882	161
Hamden	\$ 3,500,291	5,026,228	54,935,145	730	68,861	1,125,681	23,572	505,784	\$ 1,431,629	\$ 17,428,633	2,608
Hampton	\$ 82,728	41,419	596,763	7	—	—	1,426	28,320	\$ 16,610	\$ 275,944	31
Hartford	\$ 7,567,130	10,103,463	85,229,789	1,752	272,475	4,508,784	17,087	335,891	\$ 2,918,637	\$ 28,913,691	5,768
Hartland	\$ 57,169	16,783	303,299	2	25	372	2,210	45,773	\$ 14,391	\$ 287,489	31
Harwinton	\$ 548,304	920,520	13,439,500	87	777	11,945	8,294	165,816	\$ 263,612	\$ 4,060,933	440
Hebron	\$ 316,814	243,740	2,569,339	34	34	870	10,762	232,283	\$ 106,652	\$ 1,642,230	196
Kent	\$ 100,436	45,685	704,425	7	—	—	3,180	65,091	\$ 25,170	\$ 459,463	48
Killingly	\$ 1,140,259	2,044,165	21,342,001	234	14,655	156,567	14,514	306,433	\$ 586,729	\$ 6,875,888	1,028
Killingworth	\$ 363,641	537,323	4,298,061	120	12	186	8,722	175,662	\$ 170,682	\$ 1,845,361	294
Lebanon	\$ 285,886	548,825	6,181,012	22	—	—	5,512	107,125	\$ 158,554	\$ 1,987,796	262
Ledyard	\$ 1,789,201	6,735,745	46,985,543	735	1,481	22,894	15,730	328,685	\$ 1,724,099	\$ 13,093,815	2,746
Lisbon	\$ 195,329	418,757	4,651,944	65	—	—	4,763	95,780	\$ 124,318	\$ 1,582,532	211
Litchfield	\$ 432,384	255,901	2,890,138	60	1,041	17,032	13,592	269,443	\$ 124,712	\$ 1,932,553	242
Lyme	\$ 96,950	65,398	817,097	11	—	—	1,826	32,919	\$ 24,143	\$ 348,113	43
Madison	\$ 1,117,365	1,002,466	10,354,597	119	3,778	69,998	23,160	479,528	\$ 355,525	\$ 4,820,903	649
Manchester	\$ 5,020,299	7,342,906	57,668,395	1,289	129,257	2,427,332	31,986	648,891	\$ 2,118,787	\$ 20,616,426	3,967
Mansfield	\$ 1,087,734	1,642,886	16,635,089	273	10,083	84,702	10,316	207,408	\$ 461,819	\$ 5,133,982	794
Marlborough	\$ 157,134	79,951	940,024	17	—	—	7,698	157,625	\$ 53,169	\$ 917,140	104
Meriden	\$ 4,105,614	6,387,971	60,025,065	1,007	76,692	1,489,544	43,997	906,452	\$ 1,869,841	\$ 21,049,052	3,401
Middlebury	\$ 475,341	460,871	4,554,187	79	4,973	74,021	15,404	332,144	\$ 187,540	\$ 2,689,250	359
Middlefield	\$ 186,281	170,382	2,215,270	25	621	9,995	6,675	141,389	\$ 72,606	\$ 1,195,286	138



CASE STUDY

City of Bridgeport Board of Education: In 2022, the City of Bridgeport Board of Education (BBOE) and UI entered a three-year Energy Management plan to reduce energy consumption across the distressed municipality's 42-school system, focusing on LED lighting retrofits. This year, 10 BBOE schools updated their lighting systems to high efficiency LEDs, saving 1.2 million kWh annually. The BBOE received \$471,000 in energy-efficient incentives and received a zero-percent interest loan of \$550,000 to cover the remaining project costs. The BBOE participates in planning and progress meetings and has identified an Energy Champion who helps implement the benefits of the three-year Energy Management plan.

Town	Energy Incentives	Annual kWh Saved	Lifetime kWh Saved	Peak Demand kW Saved	Annual ccf Saved	Lifetime ccf Saved	Annual Gallons (Oil & Propane) Saved	Lifetime Gallons (Oil & Propane) Saved	Annual Dollars Saved	Lifetime Dollars Saved	Annual CO ₂ (Tons) Saved
Middletown	\$ 2,661,930	3,485,920	29,091,474	516	96,424	1,511,750	32,937	671,338	\$ 1,132,550	\$ 12,353,769	2,289
Milford	\$ 2,266,687	4,101,857	45,719,573	487	56,999	1,009,300	19,813	431,299	\$ 1,173,096	\$ 14,678,533	2,146
Monroe	\$ 1,336,655	1,802,394	15,392,449	292	19,403	395,050	23,536	488,177	\$ 572,354	\$ 6,520,071	1,048
Montville	\$ 961,194	1,589,899	14,063,852	304	5,258	93,834	14,859	315,996	\$ 462,700	\$ 4,996,418	789
Morris	\$ 114,392	48,884	630,842	7	—	—	5,092	96,139	\$ 35,125	\$ 591,930	73
Naugatuck	\$ 1,767,271	1,641,294	19,019,905	260	31,963	576,895	27,446	559,772	\$ 570,414	\$ 8,058,204	1,124
New Britain	\$ 3,281,145	3,877,550	35,016,721	578	107,962	1,905,911	17,290	350,507	\$ 1,173,430	\$ 12,919,313	2,349
New Canaan	\$ 1,253,650	995,410	8,646,409	191	27,969	554,723	23,587	487,008	\$ 389,596	\$ 5,154,595	813
New Fairfield	\$ 647,936	152,715	2,113,223	39	8	191	18,761	356,990	\$ 122,561	\$ 2,135,587	256
New Hartford	\$ 456,647	989,825	7,733,020	172	682	10,230	9,355	188,307	\$ 285,106	\$ 2,757,403	476
New Haven	\$ 5,696,945	11,507,987	116,279,954	1,234	403,054	4,381,053	17,842	394,271	\$ 3,441,047	\$ 36,635,391	7,142
New London	\$ 1,076,537	1,037,861	9,177,618	190	42,153	590,252	12,335	245,983	\$ 367,567	\$ 4,231,907	798
New Milford	\$ 1,627,691	2,709,739	24,924,118	437	20,709	348,607	24,200	503,459	\$ 800,634	\$ 8,894,130	1,416
Newington	\$ 1,507,902	2,199,512	19,382,623	343	27,526	557,590	18,074	350,636	\$ 658,459	\$ 7,169,175	1,208
Newtown	\$ 1,063,992	762,058	8,006,718	144	19,928	381,347	36,441	760,331	\$ 374,835	\$ 5,874,184	780
Norfolk	\$ 51,597	24,938	292,451	7	73	1,457	2,919	51,806	\$ 19,024	\$ 300,350	38
North Branford	\$ 583,964	1,057,303	11,953,301	164	3,474	64,128	8,364	175,053	\$ 301,694	\$ 3,827,255	514
North Canaan	\$ 55,958	64,585	675,622	9	—	—	1,798	35,608	\$ 23,851	\$ 324,723	43
North Haven	\$ 1,143,675	2,125,506	25,691,443	309	16,088	321,651	19,903	435,323	\$ 632,055	\$ 8,739,807	1,120
North Stonington	\$ 186,734	284,287	3,860,833	38	675	10,869	3,956	76,949	\$ 88,608	\$ 1,317,328	155
Norwalk	\$ 4,957,144	5,872,057	66,638,403	866	164,696	2,984,601	38,090	776,337	\$ 1,832,250	\$ 24,164,373	3,688
Old Lyme	\$ 491,806	367,537	4,923,650	314	—	—	12,044	243,605	\$ 143,815	\$ 2,299,974	262
Old Saybrook	\$ 587,912	626,429	6,714,004	104	1,030	21,120	12,119	250,714	\$ 208,065	\$ 2,781,159	363
Orange	\$ 2,437,072	2,903,033	33,237,213	324	163,876	2,564,749	184,393	2,874,893	\$ 1,761,215	\$ 24,785,888	4,059
Oxford	\$ 745,193	466,395	4,814,190	114	30,088	702,596	18,951	379,821	\$ 239,450	\$ 3,880,080	563
Plainfield	\$ 641,010	890,856	9,385,009	437	2,582	49,931	9,967	195,723	\$ 266,861	\$ 3,268,540	461
Plainville	\$ 1,634,821	2,838,029	36,575,619	981	21,165	424,008	12,058	244,789	\$ 776,210	\$ 10,662,056	1,332
Plymouth	\$ 565,740	498,486	4,799,523	97	5,842	110,987	12,245	245,596	\$ 183,684	\$ 2,414,985	346
Pomfret	\$ 221,297	487,946	4,153,580	88	397	5,952	3,825	73,612	\$ 136,976	\$ 1,356,246	226
Portland	\$ 402,727	375,587	3,356,649	73	656	4,577	9,640	198,473	\$ 136,887	\$ 1,738,479	250
Preston	\$ 155,857	151,241	2,339,108	14	79	1,584	5,090	99,930	\$ 60,286	\$ 1,033,157	112
Prospect	\$ 651,687	339,711	2,839,863	60	2,357	38,577	21,314	440,335	\$ 180,594	\$ 2,693,350	355
Putnam	\$ 552,193	727,084	5,853,301	104	28,735	247,485	7,407	156,162	\$ 250,062	\$ 2,497,440	537
Redding	\$ 773,021	1,215,434	10,014,041	197	2,023	31,342	16,967	359,414	\$ 377,084	\$ 4,129,740	653
Ridgefield	\$ 895,913	866,135	7,388,942	198	7,894	115,637	28,865	593,214	\$ 353,131	\$ 4,661,585	681
Rocky Hill	\$ 1,009,753	1,842,614	17,649,759	306	20,288	414,496	6,548	120,405	\$ 508,395	\$ 5,479,200	901
Roxbury	\$ 73,271	23,603	404,514	5	—	—	3,360	73,417	\$ 21,171	\$ 436,593	45
Salem	\$ 183,884	82,671	905,958	12	—	—	5,199	109,641	\$ 43,835	\$ 722,526	86
Salisbury	\$ 114,385	75,516	988,689	15	—	—	7,614	168,617	\$ 50,845	\$ 956,551	97
Scotland	\$ 87,865	102,479	899,604	12	—	—	1,758	34,263	\$ 32,912	\$ 374,138	57
Seymour	\$ 734,898	264,598	2,743,876	64	73,400	1,037,851	19,624	406,458	\$ 252,465	\$ 4,001,983	776
Sharon	\$ 110,415	113,401	1,474,889	17	—	—	4,634	101,674	\$ 46,869	\$ 778,801	81
Shelton	\$ 2,424,957	4,228,069	51,061,060	536	100,010	2,204,249	25,446	551,008	\$ 1,285,030	\$ 18,185,513	2,515



CASE STUDY

Park Street Library at the Lyric, Hartford: Since 1928, the Park Street Library has served as a community resource. Once the smallest Hartford Public Library branch, Park Street is now housed in a 13,000 square-foot facility constructed at the site of the historic Lyric Theatre. Working in partnership with Eversource, the design team prioritized efficiency in the building's design, installing interior LED lighting with controls, exterior LED lighting, and high-efficiency cooling and heat recovery equipment. These measures will save 47,171 kWh annually, totaling more than 704,000 kWh saved over the lifetime of the equipment. These are tangible annual savings of over \$7,000, equivalent to purchasing 350 books or six months of story time programming.

Town	Energy Incentives	Annual kWh Saved	Lifetime kWh Saved	Peak Demand kW Saved	Annual ccf Saved	Lifetime ccf Saved	Annual Gallons (Oil & Propane) Saved	Lifetime Gallons (Oil & Propane) Saved	Annual Dollars Saved	Lifetime Dollars Saved	Annual CO ₂ (Tons) Saved
Sherman	\$ 145,344	55,475	913,096	10	—	—	5,028	102,663	\$ 36,413	\$ 691,135	74
Simsbury	\$ 1,401,525	1,081,308	13,611,492	264	28,801	613,907	27,291	569,713	\$ 428,265	\$ 6,827,497	888
Somers	\$ 308,275	220,648	2,112,633	41	8,931	94,699	11,502	231,298	\$ 117,044	\$ 1,679,900	256
South Windsor	\$ 1,529,885	1,648,581	13,265,937	267	49,504	877,907	18,421	370,921	\$ 554,636	\$ 6,214,625	1,142
Southbury	\$ 1,069,065	936,746	11,103,838	126	4,953	82,296	23,851	475,602	\$ 343,777	\$ 4,991,854	637
Southington	\$ 2,237,912	1,924,349	18,613,632	324	76,382	1,572,725	39,711	784,815	\$ 749,756	\$ 10,297,076	1,615
Sprague	\$ 28,896	14,589	190,567	2	99	1,488	1,200	22,251	\$ 9,110	\$ 150,088	19
Stafford	\$ 329,222	267,460	2,669,957	46	—	—	11,663	235,160	\$ 117,804	\$ 1,712,353	221
Stamford	\$ 4,307,235	4,875,617	45,538,442	741	172,125	3,261,027	51,955	1,051,628	\$ 1,661,373	\$ 20,626,328	3,504
Sterling	\$ 188,305	149,027	1,344,208	33	—	—	3,396	68,616	\$ 51,892	\$ 642,828	92
Stonington	\$ 1,802,196	2,559,170	28,524,623	383	22,218	486,597	58,277	1,329,439	\$ 898,498	\$ 13,180,207	1,605
Stratford	\$ 3,260,150	5,356,742	63,085,214	958	75,828	1,530,604	16,593	363,470	\$ 1,490,625	\$ 19,371,639	2,707
Suffield	\$ 3,708,251	1,392,475	15,749,711	273	33,517	386,773	18,189	385,466	\$ 467,834	\$ 6,154,899	932
Thomaston	\$ 486,340	449,973	5,214,628	70	5,800	103,198	11,147	226,563	\$ 168,177	\$ 2,446,697	324
Thompson	\$ 273,641	275,597	3,273,738	42	—	—	7,779	160,373	\$ 102,455	\$ 1,524,870	185
Tolland	\$ 488,525	261,820	2,765,507	48	3,962	66,451	16,802	333,871	\$ 145,746	\$ 2,292,256	303
Torrington	\$ 2,084,073	1,888,052	16,915,920	273	31,874	634,086	31,369	632,317	\$ 646,018	\$ 7,889,902	1,245
Trumbull	\$ 1,507,093	1,748,530	19,250,678	291	27,621	693,242	27,334	597,529	\$ 590,794	\$ 8,460,516	1,138
Union	\$ 51,451	17,436	259,988	2	872	21,800	786	15,881	\$ 9,042	\$ 168,022	21
Vernon	\$ 1,593,577	840,700	7,223,037	121	34,726	623,608	20,034	409,639	\$ 344,209	\$ 4,540,222	757
Voluntown	\$ 93,103	40,531	731,736	8	—	—	2,832	57,794	\$ 22,619	\$ 438,676	44
Wallingford	\$ 390,643	342,574	6,169,942	34	44,139	647,790	28	417	\$ 143,134	\$ 2,439,158	411
Warren	\$ 76,301	35,083	627,886	7	—	—	2,241	45,427	\$ 18,601	\$ 357,291	36
Washington	\$ 185,662	107,961	1,311,906	21	—	—	6,894	138,149	\$ 57,197	\$ 938,203	111
Waterbury	\$ 7,550,998	4,535,022	45,080,591	652	199,175	3,553,892	79,658	1,544,777	\$ 1,742,299	\$ 23,211,146	3,852
Waterford	\$ 2,132,603	3,431,823	28,205,357	530	7,782	130,585	24,717	510,745	\$ 962,886	\$ 9,434,269	1,616
Watertown	\$ 2,003,168	2,150,887	19,635,247	309	46,211	625,965	27,739	538,904	\$ 713,611	\$ 8,137,748	1,400
West Hartford	\$ 3,523,791	2,826,726	28,572,189	537	136,710	2,662,318	38,193	787,437	\$ 1,047,164	\$ 14,342,159	2,339
West Haven	\$ 2,248,694	2,898,387	31,273,466	362	39,925	771,120	21,060	456,059	\$ 860,309	\$ 10,882,843	1,588
Westbrook	\$ 392,657	541,409	4,856,236	94	2,174	43,930	6,785	135,516	\$ 166,014	\$ 1,866,151	290
Weston	\$ 353,953	114,843	2,077,542	38	1,669	33,451	17,575	370,206	\$ 110,113	\$ 2,240,522	240
Westport	\$ 907,689	464,206	5,243,256	122	26,057	416,624	29,996	608,000	\$ 284,243	\$ 4,633,078	656
Wethersfield	\$ 1,088,078	1,216,637	9,358,398	200	35,008	740,540	14,178	283,249	\$ 409,181	\$ 4,637,250	835
Willington	\$ 360,064	372,876	4,311,500	58	—	—	4,738	95,899	\$ 112,760	\$ 1,494,007	192
Wilton	\$ 781,426	615,113	6,097,854	155	4,429	72,453	31,152	666,525	\$ 299,391	\$ 4,662,404	599
Winchester	\$ 432,049	301,961	3,048,564	59	9,218	186,247	10,636	221,939	\$ 134,534	\$ 2,023,075	286
Windham	\$ 1,401,001	2,570,637	20,091,017	327	39,873	707,313	12,176	251,340	\$ 738,015	\$ 7,079,165	1,360
Windsor	\$ 3,738,468	6,606,969	81,983,691	1,241	34,392	686,054	30,739	620,448	\$ 1,805,406	\$ 23,980,988	3,069
Windsor Locks	\$ 1,674,505	4,683,396	40,878,977	519	22,809	426,066	12,528	258,826	\$ 1,235,686	\$ 11,854,276	2,068
Wolcott	\$ 1,171,945	512,142	5,554,686	69	5,061	86,141	34,269	690,176	\$ 285,869	\$ 4,577,463	578
Woodbridge	\$ 347,943	229,349	2,250,365	54	1,054	24,089	13,896	300,941	\$ 121,901	\$ 1,980,795	248
Woodbury	\$ 442,447	287,854	3,504,032	47	3,181	58,669	12,437	249,859	\$ 130,544	\$ 2,064,997	257
Woodstock	\$ 237,295	307,926	2,627,699	44	—	—	7,393	150,205	\$ 108,976	\$ 1,331,061	195

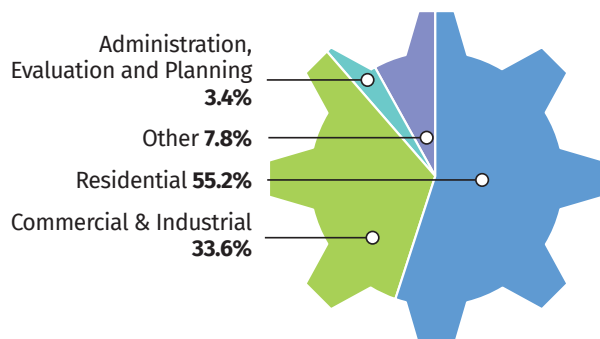


University of New Haven, Laura Miller, Director of Energy and Sustainability: *“As the University of New Haven’s Director of Energy and Sustainability, I am tasked with developing a road map for our sustainability initiatives. I have found that utilizing strategic energy management not only helps in the facilities and operations area, it also enables us to reach greenhouse gas reduction goals as we improve efficiencies and explore alternative ways of producing and using energy.”*

2022 Actual Spending / 2023 Budget

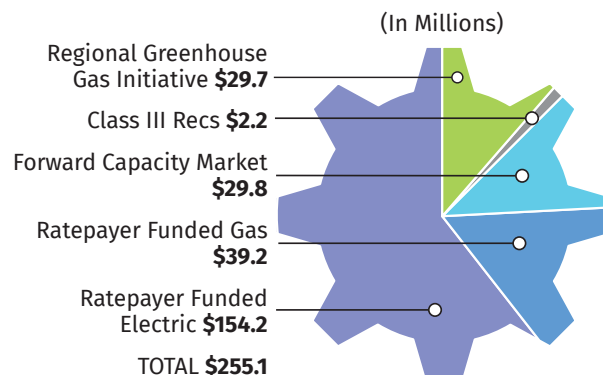
2022 EFFICIENCY PROGRAM SPENDING

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



2022 EFFICIENCY PROGRAM FUNDING

Funding for energy efficiency programs comes from many sources. Funding reflects 2022 revenues received.



2022 Energy Efficiency Programs	2022 Actuals Electric	2023 Plan Electric	2022 Actuals Natural Gas	2023 Plan Natural Gas
RESIDENTIAL				
Residential Retail Products	\$ 5,665,000	\$ 4,559,887	\$ —	\$ —
Residential New Construction	3,681,560	4,067,474	1,155,674	936,939
Home Energy Solutions – Core Services	36,993,177	24,563,110	10,470,859	9,601,858
Home Energy Solutions – HVAC, Water Heaters	21,735,096	16,097,604	7,024,888	5,278,695
Home Energy Solutions – Income Eligible	31,030,440	20,313,846	13,114,308	13,660,475
Residential Behavior	231,362	289,044	269,258	379,875
Subtotal Residential	\$ 99,336,636	\$ 69,890,965	\$ 32,034,986	\$ 29,857,843
COMMERCIAL & INDUSTRIAL				
Energy Conscious Blueprint	\$ 12,840,744	\$ 15,414,873	\$ 3,906,352	\$ 7,762,711
Energy Opportunities	44,938,449	40,370,466	3,964,472	6,050,521
Business & Energy Sustainability	2,277,869	4,106,877	852,595	1,799,106
Small Business	9,175,453	15,485,610	600,038	1,505,385
Subtotal C&I	\$ 69,232,514	\$ 75,377,827	\$ 9,323,456	\$ 17,117,723
OTHER—EDUCATION, ENGAGEMENT & FINANCING				
Customer Engagement	\$ 207,473	\$ 480,000	\$ 14,678	\$ 170,000
Educate the Public	228,222	960,000	102,685	240,000
Educate the Students	706,007	920,000	120,105	230,000
Educate the Workforce	418,112	992,000	46,948	248,000
Residential Loan Program	2,498,266	2,146,738	218,710	257,107
C&I Financing Support	1,519,211	1,085,000	2,091	188,905
Research, Development & Demonstration	159,114	313,477	133,586	150,000
Subtotal Education, Engagement & Financing	\$ 5,736,406	\$ 6,897,215	\$ 638,803	\$ 1,484,013
OTHER—LOAD MANAGEMENT				
Residential Demand Response	\$ 4,022,032	\$ 3,769,094	\$ 87,331	\$ 357,537
C&I Demand Response	4,172,399	4,804,719	195,283	387,645
Subtotal Load Management	\$ 8,194,430	\$ 8,573,813	\$ 282,614	\$ 745,181
OTHER—ADMINISTRATIVE & PLANNING				
Administration	\$ 1,462,488	\$ 1,087,612	\$ 436,190	\$ 526,951
Marketing Plan	544,569	551,780	136,068	120,300
Planning	1,262,175	897,213	399,989	264,808
Evaluation Measurement and Verification	3,600,156	3,600,000	910,680	900,000
Evaluation Administrator	421,926	355,289	112,134	88,821
Information Technology	2,887,919	2,564,472	1,226,637	758,021
Energy Efficiency Board Consultants	707,254	640,001	168,954	159,999
Audits - Financial and Operational	84,000	84,000	30,000	30,000
Performance Management Incentive	11,527,127	8,472,045	2,717,351	2,588,742
Admin/Planning Expenditures	\$ 22,497,614	\$ 18,252,412	\$ 6,138,003	\$ 5,437,642
TOTAL ENERGY EFFICIENCY BUDGET	\$ 204,997,600	\$ 178,992,233	\$ 48,417,862	\$ 54,642,401

2022 Savings



2022 RESIDENTIAL PROGRAM SAVINGS



Savings:
Annual:
\$30.8 Million
Lifetime:
\$505.1 Million



Projects and Rebates:
488,867



CO₂ Emissions Reduced*:
Annual:
68,215 Tons
Lifetime:
1,190,507 Tons



Energy Savings

kWh = Electricity
Annual:
56 Million
Lifetime:
671 Million

ccf = Natural Gas
Annual:
3,188 Thousand
Lifetime:
60,837 Thousand

Gallons = Fuel Oil and Propane
Annual:
2,582 Thousand
Lifetime:
53,048 Thousand

2022 COMMERCIAL & INDUSTRIAL PROGRAM SAVINGS



Savings:
Annual:
\$48.8 Million
Lifetime:
\$440.7 Million



Projects and Rebates:
5,271



CO₂ Emissions Reduced*:
Annual:
85,405 Tons
Lifetime:
787,010 Tons



Energy Savings

kWh = Electricity
Annual:
194 Million
Lifetime:
1,739 Million

ccf = Natural Gas
Annual:
1,762 Thousand
Lifetime:
19,290 Thousand

Gallons = Fuel Oil and Propane
Annual:
11 Thousand
Lifetime:
159 Thousand

2022 COMBINED RESIDENTIAL AND COMMERCIAL & INDUSTRIAL SAVINGS



Savings:
Annual:
\$79.6 Million
Lifetime:
\$945.8 Million



Projects and Rebates:
494,138



CO₂ Emissions Reduced*:
Annual:
153,620 Tons
Lifetime:
1,977,517 Tons



Energy Savings

kWh = Electricity
Annual:
250 Million
Lifetime:
2,410 Million

ccf = Natural Gas
Annual:
4,950 Thousand
Lifetime:
80,127 Thousand

Gallons = Fuel Oil and Propane
Annual:
2,593 Thousand
Lifetime:
53,207 Thousand

* CO₂ emissions are in short tons

2022 Key Benefits

Energy Efficiency Is The Lowest Cost Energy Resource



At an average of 7 cents/kWh, 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 CT 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 \$4.71 of clean energy investment

This investment by residential, business, 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



\$6.6 Billion increase to the gross state product

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



Energy savings equivalent to a 59MW power plant

This is enough energy to power approximately 33,402 homes for a year.



150,544 tons of CO₂ emissions avoided, plus \$3.8 Million in public health costs saved

Supporting our state’s drive towards carbon neutrality.³



\$82.8 Million in Connecticut tax revenues

Generated from energy efficiency, renewable, and financing measures supported by the Conservation and Load Management Plan (Eversource, CNG, SCG, UI) and the Comprehensive Plan (CT 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 2022 Comprehensive Plan administered by the CT Green Bank. These numbers reflect 2022 annual savings and benefits calculated from C&LM and CT 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

Neil W. Beup
Chairperson
Linde
10 Riverview Road
Danbury, CT 06810



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.



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Designee, Residential
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Representative
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At the conclusion of 2022, there were only 16 Board members. We are still waiting for DEEP to appoint the 17th member.

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