

# Energy Efficiency Board 2021 Programs and Operations Report

MARCH 1, 2022



Empowering you to make  
smart energy choices

**ENERGY**  
**EFFICIENCY**  
**GREEN BUILDING SUCCESS**  
**LED** RESIDENTIAL **SAVING** HEATING **COMMERCIAL** COOLING **RESIDENTIAL** **LED** SUPPLY HOME  
INDUSTRIAL **MISSION** **CLIMATE** **RENEWABLE** **UTILITY** **JOBS**  
CONNECTICUT **DIVERSITY** POWER  
**COST-EFFECTIVE** INVESTMENT  
**NET ZERO ENERGY SUPPORT**  
HOME ENERGY SOLUTIONS  
**HEATING AND COOLING** **DEEP** **COMMUNITIES** **STRATEGIES** **CUSTOMERS**  
EQUITABLE ACCESS  
**SUSTAINABLE**  
**WEATHERIZATION**  
**CONSERVATION**  
2021

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# 2021 Letter from the Chairs



**We are honored to deliver the 2021 Programs and Operations Report of the Connecticut Energy Efficiency Board (the Board) to the Connecticut**

**General Assembly. This annual report gives us time to reflect on the positive impacts of energy efficiency programs and our future efforts. Energy efficiency is the quickest and most cost-effective policy tool to lower utility bills, create jobs, promote economic development, and reduce greenhouse gas emissions. Our programs, developed under the Energize Connecticut<sup>SM</sup> initiative, offer incentives to customers who construct net zero energy buildings, weatherize residential and commercial properties, install high-efficiency appliances and heating and cooling equipment, and implement sustainable operations.**

We entered 2021 facing the challenges of the COVID-19 pandemic and the subsequent recession. To aid economic recovery, we offered higher incentives and rebates, bundled measures to drive comprehensive projects, promoted financing options, offered virtual pre-assessments for residential and small business customers, and expanded customer outreach efforts.

Our successes can only be achieved with the state's highly-skilled workforce of 41,487 clean energy professionals.<sup>1</sup> Eversource and AVANGRID subsidiaries Connecticut Natural Gas, Southern Connecticut Gas, and United Illuminating (the Companies) continued to collaborate with the Board, Department of Energy and Environmental Protection (DEEP), and other organizations to offer trainings and certifications to hundreds of professionals.

To address systemic inequities in access to energy efficiency, the Board and DEEP worked to identify market segments and communities with historically low participation rates and barriers to program participation. The findings of these efforts demonstrated the need to ensure consideration of diversity and inclusion in our programs as well as our energy workforce. As a result, the Board issued a competitive solicitation for a diversity, equity, and inclusion consultant who will help ensure fair and equitable access to energy efficiency.

<sup>1</sup> 2021 CT Clean Industry Energy Report reflects 2020 data.

The Governor, Board, DEEP, the Companies, the Department of Social Services, and other stakeholders worked to design an innovative Weatherization Barrier Remediation Program to tackle barriers to weatherization for the most vulnerable households across state programs. This collaboration will increase efficiency, especially in low-income households, and help to meet the state's goal of 80 percent of homes weatherized by 2030.

The General Assembly's passage of S.B. 856, An Act Increasing Representation on the Energy Conservation Management Board, added two Board members representing municipal and low-income residential customers. They bring fresh perspectives and we welcome their voices, as well as those from all of the stakeholders who have participated in monthly Board meetings, public input sessions, and DEEP's technical hearings regarding the 2022-2024 Energy Efficiency Plan. We appreciate the tremendous public response and look forward to continued interest.

To reduce the state's greenhouse gas emissions, we worked collaboratively with others in the public and private sectors. In 2021, the Governor's Council on Climate Change released its Phase I Report on near-term actions to address climate change. In support, we increased our decarbonization strategies to demonstrate how energy efficiency programs can help us all, promoting heat pumps, weatherization, and zero net energy buildings. These emissions-reduction strategies demonstrate how energy efficiency programs can help us all meet the state's target climate goals. Additionally, we expanded our active demand response programs and worked with the Companies to coordinate the current energy storage and electric vehicle charger offerings with the Public Utilities Regulatory Authority's grid modernization dockets. We also collaborated with the Connecticut Green Bank (Green Bank) to promote renewables and financing.

As you read this report, we are diligently implementing the 2022-2024 Plan to maintain the state's leadership in energy efficiency. Our climate-forward framework will promote equity, decarbonization, and energy affordability.

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

**Amy McLean**  
Vice Chairperson  
Acadia Center  
21 Oak Street, Suite 202  
Hartford, CT 06106



More than 994,368 instances of participation



Energy-saving programs generated \$62.1 million in savings



These savings eliminated the need for a 114 MW Plant

# Executive Summary

Energy efficiency benefits all customers and is the most cost-effective, reliable resource for energy policymakers and stakeholders. Efficiency makes energy more affordable for residents and businesses still feeling the economic stresses caused by the pandemic and decreases demand on power plants and the grid resulting in lower costs to deliver and supply energy. This also reduces greenhouse gas and air pollutant emissions, improving public health, mitigating climate change, and protecting vulnerable communities.

## Economy

The pandemic affected some Connecticut residents and businesses more severely. From shuttered businesses, lost jobs and wages, limited affordable housing, and most classrooms online, economic growth was stunted and many customers struggled to pay their utility bills. These issues did not disappear in 2021, so a number of strategies were deployed to engage residents and businesses in energy efficiency, particularly those in distressed municipalities and environmental justice communities.

## Climate Change

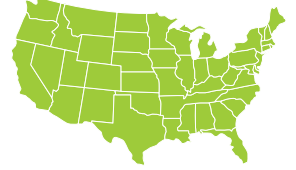
The recent 2018 Connecticut Greenhouse Gas Inventory Emissions Report tracks the state's progress toward meeting the target emissions goals of the Global Warming Solutions Act (GWSA), which requires the state to reduce the level of economy-wide greenhouse gas emissions 80 percent below 2001 levels by 2050. The report found that the state is not on track to meet its 2030 (45 percent) and 2050 GWSA targets. Similar to the Governor's Council on Climate Change's findings, the report identified decarbonization strategies for the building sector, including high-efficiency new construction, heat pumps, weatherization, and demand reduction. Though many of these strategies were already deployed, greenhouse gas reduction efforts were increased and decarbonization was established as a key priority for the 2022-2024 Plan.

## Collaboration with the Green Bank

The Board continued to work closely with the Green Bank and other financial institutions to promote financing and clean energy programs, such as C-PACE and Smart-E loans. The Board and the Green Bank's Board of Directors also collaborated on the release of the 2021 Connecticut Clean Energy Industry Report, an in-depth analysis of the state's clean energy workforce and its resulting economic benefits.

## National Recognition

Since 2000, the American Council for an Energy-Efficient Economy (ACEEE) has perennially ranked Connecticut as one of the top 10 states in the country for energy efficiency. ACEEE's 2020 State Energy Efficiency Scorecard (most recently published) ranked Connecticut seventh in the nation. In April 2021, the sponsors of Energize CT, Eversource, CNG, SCG, and United Illuminating, were recognized with the Environmental Protection Agency's 2021 ENERGY STAR® Partner of the Year Sustained Excellence Award for their response to the COVID-19 public health crisis by increasing incentives for ENERGY STAR certified equipment and offering special online discounts for ENERGY STAR certified lighting, air cleaners, and smart thermostats. These efforts resulted in the sale of about 70,000 ENERGY STAR certified non-lighting residential products.



### In 2021, our work was guided by these seven principles:

1	Advance state energy and environmental policy goals
2	Offer tailored solutions for market segments while ensuring equitable distribution
3	Focus on direct savings to customers
4	Develop and maintain a sustainable workforce
5	Continuous commitment to deliver comprehensive energy efficiency strategies
6	Implement effective demand reduction strategies
7	Continue to explore and implement financing options



# Diversity, Equity, and Inclusion

The Board's mission is to make energy efficiency a top priority and ensure all customers benefit from the programs. Throughout the year, the Board collaborated with the Companies, state agencies, and stakeholders to develop innovative customer engagement strategies. Outreach efforts were targeted to towns and cities defined by the CT Department of Economic Development as distressed municipalities.<sup>1</sup> These municipalities have high unemployment and poverty, aging housing stock, and low or declining rates of growth in job creation, population and per capita income.

In 2021, the Board strengthened its resolve to engage underserved customers, neighborhoods, market segments, and communities. The Board worked collaboratively with DEEP in its Equitable Energy Efficiency (E3) proceeding to expand the inclusion and participation of individuals and communities in energy efficiency programs. In July 2021, DEEP issued its E3 Phase I report recommendations.<sup>2</sup>

In response, the Board issued a competitive solicitation for a diversity, equity, and inclusion consultant who will play a critical role in institutionalizing new equity metrics and consulting on the implementation of community outreach strategies. Additionally, in 2021, a tool was developed that will allow communities, municipalities, and vendors to identify census tracts that meet income-eligibility requirements and reduces barriers to program participation for residents in these often underserved communities. This census tract tool will be deployed by the Companies for the 2022-2024 Plan.

<sup>1</sup> The CT Department of Economic Development's list of 25 distressed municipalities is updated annually at [https://portal.ct.gov/DECD/Content/About\\_DECD/Research-and-Publications/02\\_Review\\_Publications/Distressed-Municipalities](https://portal.ct.gov/DECD/Content/About_DECD/Research-and-Publications/02_Review_Publications/Distressed-Municipalities)

<sup>2</sup> The E3 Phase I report is available at: <https://portal.ct.gov/-/media/DEEP/energy/ConserLoadMgmt/Final-E3-Phase-I-Determination.pdf>

ENERGY EFFICIENCY  
BENEFIT  
UTILITY  
MISSION  
MUNICIPAL  
CENSUS  
TRACT TOOL  
DIVERSITY  
NOISITJANI  
ENERGY AFFORDABILITY  
COST-EFFECTIVE  
CERTIFIED  
HOMES  
CLIMATE  
COMMUNITIES



## E3 PHASE I GOALS

- 1 Embed greater equity in decision-making.
- 2 Enhance tracking of equity indicators in Conservation & Load Management programs.
- 3 Develop metrics and goals to assess equitable distribution of energy efficiency funding.
- 4 Improve program participation and impacts among moderate-income customers.
- 5 Streamline the eligibility process for low-income programs.
- 6 Improve outreach to high-need or high-impact populations.
- 7 Address health and safety barriers to low-income weatherization access.
- 8 Address and remove barriers to participation among renters.

 **10** Community Partnership Initiative projects selected

# Community Outreach and K-12 Education

## 2021 Highlights

### Community Partnership Initiative

To leverage the local knowledge, trusted relationships, and experiences of community groups, non-profits, and municipalities, the Companies launched the Community Partnership Initiative. In 2021, the Companies closed the first Partnership application round with the selection of 10 proposed projects within 9 municipalities aimed at championing increased program participation by residential customers in distressed municipalities, low- and moderate-income customers, renters in one-to-four-unit homes, and small businesses.



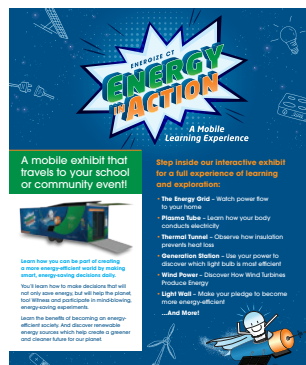
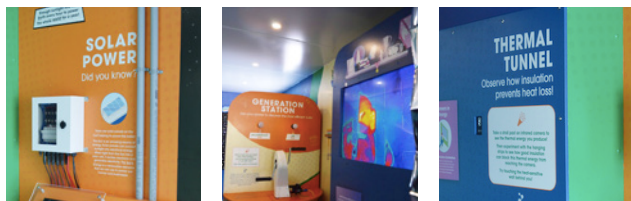
### Energize CT Energy in Action Mobile Exhibit


This entertainment-based and interactive learning exhibit explores weatherization, energy conservation behaviors, energy-efficient technologies, clean energy sources, and career opportunities. Once on the road in early 2022, the exhibit will tour 40 K-12 schools and 40 community events annually. Sixty percent of tours will be in distressed municipalities and environmental justice communities.




### K-12 Education

In 2021, the Companies moved more lessons, parent resources, and activities online, including six new digital mini-lessons. These resources gave and continue to provide educators and parents 24/7 access to engaging educational content on energy efficiency while empowering students to be agents of change in their communities. Multiple professional development workshops (all virtual) were conducted to build district and statewide capacity. In 2021, over 250 students participated in the annual Student Contest. Students were asked to respond to grade-level prompts, such as posters and persuasive essays, regarding energy efficiency, sustainability, and clean energy technologies.



 **8,416**  
K-12 students reached

 **26**  
workshops for 246  
K-12 educators

# Residential Energy Solutions

## \$31.8 MILLION SAVED

In 2021, Connecticut's energy efficiency programs delivered innovative solutions and energy savings to residential customers across the state. Households saw reductions in their utility bills and increased comfort in their homes due to the installation of energy-efficient measures.

Connecticut's energy efficiency programs offer energy assessments and in-home weatherization services for single-family homes and multifamily (5+ units) properties (free to income-qualified customers), rebates and incentives for sustainable new construction, high-efficiency appliances, smart thermostats, heating and cooling equipment, and behavioral and demand response strategies.

Homes can benefit from a variety of program measures designed to increase the efficiency of a home's building envelope. This can include improvements such as air and duct sealing, insulation, and windows. Upgrading electrical appliances to ENERGY STAR certified models and replacing existing heating, cooling and water heating with high-efficiency systems can result in further energy savings.

### Energy Affordability

Energy burden is defined as the percentage of household income spent on energy bills. Low-income households spend a greater proportion of their income on energy costs compared with the average household.<sup>1</sup> The Home Energy Solutions<sup>SM</sup>-Income Eligible program is designed to help low-income households reduce their energy usage and lower energy bills. The no-cost program was marketed to customers behind on their bills (in arrears) and households located in distressed municipalities. These efforts increased awareness and participation in energy efficiency.

**Recently, NeighborWorks New Horizon (NWNH) purchased Union School Apartments, an affordable housing community for area seniors in East Haven.** All residents are below 60 percent of the area median income. Once a neighborhood school, the building's systems and materials had reached the end of their useful life, and despite regular maintenance and repair, operating costs were skyrocketing. In 2021, NWNH turned to United Illuminating for help. Installed measures included heat pumps, a high-efficiency boiler, a new central air conditioning system, water-saving measures, and high-efficiency LED lighting. NWNH estimates these improvements will reduce energy bills by \$9,507 per year and save 29,214 kWh and 4,249 ccf annually.

**Shippan Place, a 148-unit low-income affordable housing community in Stamford, is operated by Rose Community Management.** The community worked with Eversource to upgrade windows and sliding doors to high-efficiency triple-pane models, eliminating drafts and heat loss, as well as keeping the sounds of bustling Stamford outside. Rose Community Management assists with their residents' utility bills and estimates the weatherization upgrades will save over \$13,000 on energy consumption each year.

## This Is How We Saved\* Energy in 2021



**19,905** homes weatherized (market-rate and low-income single- and multifamily homes)



**6,229** low-income households served (single-family homes)



**22,447** heating and cooling systems installed



**5,766** hot water systems installed



**106,683** non-lighting products sold (Retail and Online Marketplace)



**1,658** single-family, energy-efficient homes built



**20,267** customers participated in summer peak demand programs



**20,393** upgrades to existing multifamily units



**1,491** new multifamily energy-efficient units built



**3,129,952** LED bulbs sold

\* Based on annual savings expected in Connecticut

<sup>1</sup> Low-income households' energy burdens are typically 6% or more, according to Fisher, Sheehan and Colton's *Home Energy Affordability Gap Analysis*.

# 2021 Residential Highlights

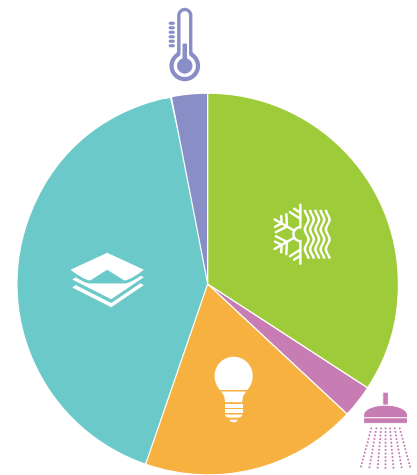
The US Department of Energy (DOE) Home Energy Score provides a “miles per gallon” rating on the energy performance of a home and makes recommendations for efficiency upgrades. The Home Energy Solutions program offers customers the option to receive an “Initial Score”. In 2021, the Companies, DEEP, and the Board developed a “Final Score” for customers who received an Initial Score and completed one of the recommended efficiency upgrades. In 2022, the Final Score will be offered to Home Energy Solutions and Home Energy Solutions-Income Eligible participants. In May 2021, the DOE Home Energy Score Team recognized the Connecticut Home Energy Score Working Group with the **2020 Home Energy Score Partner Innovation Award** for championing an innovative, inclusive process for improving program delivery and making efforts to reach rental households.

Several landlord roundtables were held to solicit feedback from owners of multifamily properties regarding what support is needed to increase landlord participation in energy efficiency. Roundtable participants identified increased technical assistance and incentives as potential motivating factors. Additional roundtables in 2022 are planned to engage more landlords.

Passive House design, **net zero energy homes**, and an all-electric package offering were heavily promoted to the new construction community to encourage higher efficiency standards. In 2021, 21 net zero energy homes were built. Several technical trainings were held in collaboration with the CT Passive House Alliance.

Health and safety barriers, such as asbestos and mold, currently limit homes from receiving energy efficiency services and potentially restrict access to energy-saving measures. In 2021, the Governor’s office, Board, DEEP, the Companies, Department of Social Services, and other stakeholders collaborated to design and develop the **Weatherization Barriers Remediation Program**.<sup>6</sup> Once launched in 2022, this program will increase energy efficiency, especially in low-income households, and will contribute to the state’s goal of 80 percent of homes weatherized by 2030.

Here is how energy was saved in residential homes<sup>1</sup>:



- 41% from Insulation/Building Envelope<sup>2</sup>
- 34% from Heating and Cooling<sup>3</sup>
- 18% from Lighting
- 4% Refrigeration/Other<sup>4</sup>
- 3% from Hot Water<sup>5</sup>

<sup>1</sup> 49,676 single and multifamily homes served, plus rebates and retail products

<sup>2</sup> Includes 11,803 insulation rebates

<sup>3</sup> Includes 22,447 heating and cooling systems installed (including 9,019 heat pumps)

<sup>4</sup> Includes 17,765 refrigerator and freezer rebates

<sup>5</sup> Includes 5,766 water heating units installed

<sup>6</sup> Information regarding the Weatherization Barriers Remediation Program is available at: <https://portal.ct.gov/DEEP/Energy/Conservation-and-Load-Management/Weatherization-Barrier-Mitigation>

## Four Seasons of Colchester Apartments, Colchester

The developer of this multifamily 100-apartment complex worked with Eversource to construct a sustainable all-electric community with innovative energy efficiency features. Guidance from Eversource and a \$300,000 incentive (\$3,000 per unit) helped the apartment community make the leap to all-electric, which means there is no fuel combustion of any type on-site. In addition to a highly insulated envelope, the 10 buildings now feature all LED lighting, ENERGY STAR certified appliances, heat pumps, and electric vehicle charging stations. These improvements will help save 305,000 kWh or \$64,000 annually and reduce greenhouse gas emissions.

## The Diiulio Family, Stratford

In 2021, John and Mary Diiulio, Stratford residents, reached out to United Illuminating to make energy efficiency improvements to their 95-year-old home. Home Energy Solutions technicians assessed the efficiency of the home and performed a variety of on-the-spot services to make the home weather tight, including air and duct sealing. High-performance insulation was also installed in the basement ceiling to make the home more comfortable. The energy efficiency measures installed are estimated to reduce the family’s energy bills by \$1,459 annually.



# Commercial & Industrial Energy Solutions

## \$30.3 MILLION SAVED

In 2021, Connecticut's commercial and industrial (C&I) energy efficiency solutions served businesses of all sizes, municipalities and state facilities, colleges and universities, non-profits, churches, and hospitals. Connecticut's energy efficiency programs are designed to be versatile and address C&I customers' energy needs comprehensively. From a local market store on Main Street to a plastic injection manufacturer in an industrial park, Connecticut's energy efficiency programs help all C&I customers reduce their energy costs, decrease greenhouse gas emissions, reduce and manage their peak demand, and help meet their corporate or municipal sustainability goals. Energy efficiency solutions are tailored to identify the optimal solution for each market segment, including new construction, retrofit and renovation, small and medium commercial enterprises, microbusinesses, municipalities, and manufacturers.

### Net Zero Energy Buildings

Net zero energy buildings consume only as much energy as can be produced on-site through clean, renewable energy sources. In 2021, the Energy Conscious Blueprint program was redesigned into a transformative four-pathway offering to drive the new construction marketplace toward net zero energy buildings with low energy use intensity ratings. These new pathways gave C&I customers several options to cost effectively exceed energy code requirements during design and construction and achieve net zero energy.

#### Blake Group, East Windsor

*Net Zero Energy Building – Energy Conscious Blueprint*

As a manufacturers' representative and a distributor of water and thermal energy products, the Blake Group worked with Eversource and other experts to build the first New Building Institute-certified net zero energy commercial building in Connecticut. Net zero energy aspects include interior/exterior LED lighting and controls that harvest daylight, high R-value insulation, ground source heat pumps, thermally-enhanced radiant tubing throughout the warehouse floor, a fresh air energy recovery ventilator exhausting unit, a solar water heater, and a rooftop photovoltaic system that generates approximately 150 percent of the building's annual energy usage. The building is estimated to save 100 tons of carbon dioxide a year, equivalent to planting 150 trees.

*"The project was an opportune time to live our commitment to sustainable energy through our own building. This building enables us to test and learn how to get the most out of the technology and share what we learn with our customers and industry leaders. We hope others will feel empowered to build their own net zero commercial energy buildings."*

Fred Cuda, The Blake Group CEO

## This Is How We Saved\* Energy in 2021



**974** small business projects



**400** small business projects in distressed municipalities (included in total above)



**1,435** municipal and state projects



**167** heat pump technologies installed



**1,381** new construction projects completed



**265** high-efficiency heating and cooling systems installed (does not include heat pumps)



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

\* Based on annual savings expected in Connecticut

STRATEGIES  
SUPPORT  
CUSTOMERS  
ENERGY STAR  
NET ZERO ENERGY  
COMMISSIONING  
SUSTAINABLE  
HEATING AND COOLING  
CONNECTICUT

## Small Businesses

Small businesses are the backbone of Connecticut's economy. The Small Business Energy Advantage program is designed to help non-profits, restaurants, retail stores, and other small businesses 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 and then installs energy-saving measures. This turnkey program, combined with incentives and zero-interest financing, allows customers to invest in energy efficiency.

**St. John's Episcopal Church** is a grand Victorian building in the heart of the East Rock neighborhood of New Haven. Despite a small congregation and extremely tight budget, St. John's was able to complete two phases of energy efficiency improvements through program incentives and support from United Illuminating and SCG. The first phase of energy-saving improvements included the installation of a high-efficiency central air conditioning system, new furnace and boiler, heat pumps, and LED lighting and sensors. The remaining furnace and boiler were upgraded during the second phase. These measures now provide brighter, more energy-efficient lighting as well as a healthier, more comfortable environment for parishioners and staff. These improvements will save St. John's more than \$4,600 a year on their annual electric and natural gas bills.

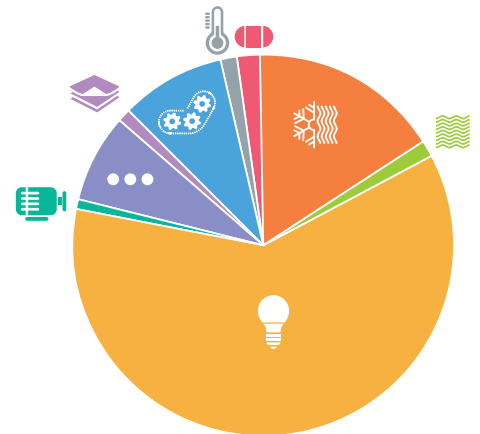
**The Circle Diner**, a family restaurant located in Fairfield, has been serving customers for over a decade. Circle Diner co-owners Maria Lalvay and Gus Tsilfidis agreed to participate in the Small Business Energy Advantage program when approached by United Illuminating and a participating contractor. Once told about the increased incentives offered due to the pandemic, the owners realized their business could afford to invest in energy efficiency. The impact to restaurant operations and their customers was minimal and the high-efficiency lighting, refrigeration, and dishwashing upgrades installed are estimated to save the restaurant \$24,000 a year.

## Manufacturers

The state's manufacturing community supports technological advancement, good-paying jobs, and economic development. Several C&I solutions specifically help manufacturers save energy and optimize their industrial processes. The realized energy savings and productivity gains can then be reinvested in new product lines, research and development, and to hire additional workers. Through the Process Reengineering for Improved Manufacturing Efficiency (PRIME) initiative, manufacturers receive training in lean manufacturing techniques to eliminate or reduce waste, improve product efficiency, reduce operating inefficiencies, minimize environmental impacts, reduce electrical energy consumption, and to streamline manufacturing processes.

Founded in 1950, the **Industrial Heater Corporation** in Cheshire develops and fabricates band heaters for industrial processing. The business worked with a PRIME initiative consultant and Eversource to conduct three days of process improvement training events to identify inefficiencies in their manufacturing processes, improve business operations, and to optimize energy use. PRIME funding support subsidized 100 percent of the consulting costs and the process improvements increased production capacity by 25 percent and helped the company better manage production schedule from quote to ship. The efficiency improvements will save the manufacturer an estimated 60,000 kWh annually.

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



- 61% from Lighting
- 16% from Heating and Cooling
- 10% from Process
- 7% from Other
- 2% from Compressed Air
- 1% from Building Envelope
- 1% from Hot Water
- 1% from Motors
- 1% from Refrigeration

*"We would never have been able to do these projects without financial assistance through our utilities; this church doesn't have the money but recognizes the importance of keeping our old building from disrepair."*

Reverend Charles Hoffman, St. John's Episcopal Church, New Haven

*"PRIME is a no-brainer. Thanks to this program, we've improved our process and it has motivated us to carry forward our commitment to continuous improvement in everything we do here. Today our throughput has increased, we're wasting less on inventory and in the same eight-hour period we're producing more and saving energy."*

Tom McGwire, Industrial Heater Vice President of Business Development, Cheshire

\* Based on annual savings expected in Connecticut

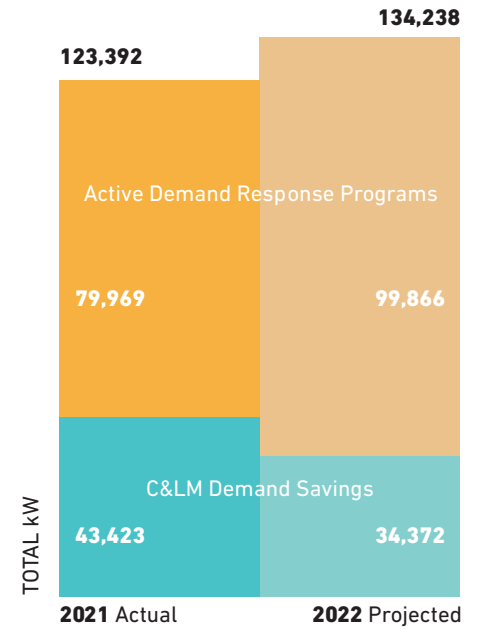
# Activities in 2021 Produced Substantial Economic and Environmental Benefits for Residents, Businesses, and Municipalities

## Demand Management

Over the past decade, energy efficiency has significantly reduced overall energy consumption and reduced peak demand on the grid, providing financial and environmental benefits to Connecticut residents and businesses. The Board has long supported the implementation of effective demand management programs to reduce needed capacity on the grid, resulting in lower electricity prices and reducing federally mandated congestion charges on electric bills.

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 of time, such as allowing their smart thermostats to be remotely adjusted a few degrees or agreeing to have their electric vehicle charging times 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 2021, the Companies expanded their active demand response offerings, including the launch of CNG's and SCG's natural gas demand response pilots for residential and commercial customers. Additionally, Eversource and United Illuminating coordinated the delivery of energy storage and electric vehicle charger offerings with the Public Utilities Regulatory Authority's grid modernization dockets.

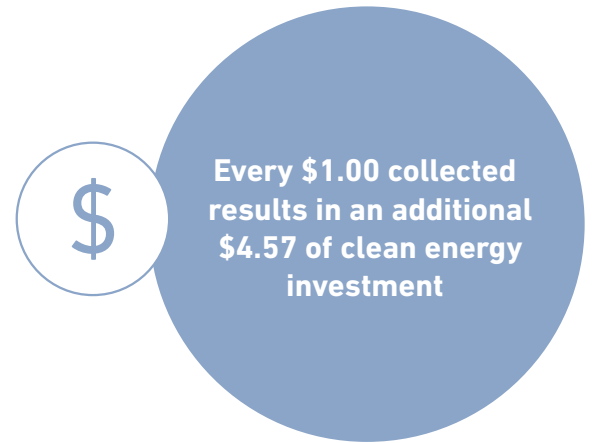


## Promote Economic Development

In 2021, there were more than 994,000 instances of participation in energy efficiency programs. This generated \$62.1 million in annual energy savings and will result in participants saving \$765.4 million over the lifetime of the installed measures.

Energy savings benefit customers across the state. Expenditures on energy are a direct investment in the state's economy. Customers benefit through lower energy bills, reduced operations and maintenance costs, more efficient processes, improved comfort, and, in the long term, lower utility rates. Energy savings can then be reinvested in other household, business, or municipal needs.

Connecticut's energy efficiency programs support a robust workforce of 41,487 clean energy efficiency professionals. The revenues and wages from these firms and workers are then reinvested in the communities where they live and work. Energy efficiency is an economic win-win for all residents, businesses, and municipalities in Connecticut.



	Estimated Annual Savings 2021 (Tons) <sup>1</sup>			Estimated Lifetime Savings 2021 (Tons) <sup>1</sup>		
	Electric	Natural Gas	Fuel Oil and Propane	Electric	Natural Gas	Fuel Oil and Propane
Air Emissions						
Sulfur oxides (SO <sub>x</sub> )	3	0	0	31	3	7
Nitrous oxides (NO <sub>x</sub> )	15	28	24	156	448	479
Carbon dioxide (CO <sub>2</sub> )	95,640	37,582	28,507	1,012,266	606,864	579,095

<sup>1</sup> CO<sub>2</sub> emissions are in short tons.



	Annual Savings (Millions)	Lifetime Savings (Millions)	Number of Projects & Rebates <sup>1</sup>	Annual CO <sub>2</sub> Emissions Reduced (Tons) <sup>2</sup>	Annual MMBtus Reduced (Thousands)
Home Energy Solutions (including insulation and windows)	\$ 9.39	\$ 177.64	40,780	28,919	376,029
Home Energy Solutions – Income Eligible	\$ 4.82	\$ 70.27	32,176	13,560	180,406
Retail Products	\$ 10.20	\$ 38.30	757,224	16,584	162,140
HVAC and Water Heating Equipment	\$ 5.45	\$ 89.93	86,056	17,504	238,931
Residential New Construction	\$ 1.60	\$ 32.34	3,149	3,546	44,887
Residential Behavior	\$ 0.34	\$ 0.68	48,225	1,264	19,093
Small Business	\$ 3.55	\$ 40.97	974	7,671	77,182
Business and Energy Sustainability	\$ 1.05	\$ 6.15	164	5,199	74,991
Existing Buildings (Mid- and Large-Sized Businesses)	\$ 20.18	\$ 227.63	3,681	49,999	514,677
New Construction/Equipment (Business)	\$ 5.56	\$ 81.51	1,381	17,482	211,028
<b>Total</b>	<b>\$ 62.14</b>	<b>\$ 765.42</b>	<b>973,810</b>	<b>161,729</b>	<b>1,899,365</b>

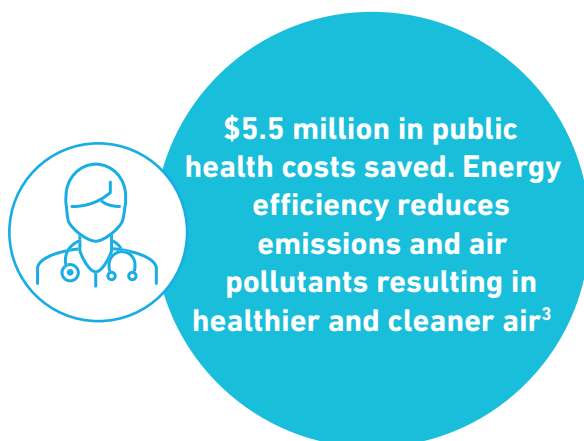
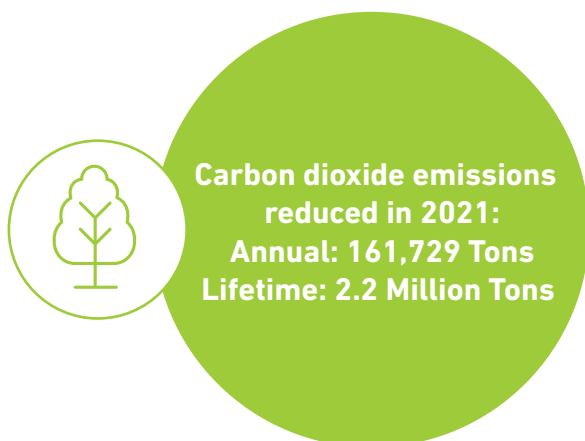
### Protect the Environment

A primary objective of the Board is to protect the environment, reduce air pollution, and protect public health. Energy efficiency reduces carbon dioxide and other greenhouse gas emissions, such as nitrous oxides, sulfur oxides, and chlorofluorocarbons (from refrigerants).

Energy efficiency is the most cost-effective tool in the state's drive toward carbon neutrality. Improving the efficiency of the building sector results in reduced energy demand, which means less reliance on fossil-fueled power plants that emit

greenhouse gases. In 2021, energy efficiency resulted in energy savings equivalent to one 114 MW power plant, enough energy to power approximately 43,138 homes for a year.

Decarbonization is critical in helping Connecticut achieve its target goals for greenhouse gas emissions reductions codified by the Global Warming Solutions Act (2050 target goals) and Public Act 18-82 (2030 target goals).



<sup>1</sup> Additionally, there are 20,558 customers who participated in active demand response programs.

<sup>2</sup> Annual CO<sub>2</sub> emissions are in short tons.

<sup>3</sup> EPA Avoided Emissions and Generation Tool (AVERT).

## Demonstrating Economic Benefits Throughout Connecticut

This list includes energy efficiency and conservation benefits provided to residential, commercial, municipal, and industrial customers of Eversource, United Illuminating, 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 <sub>2</sub> (Tons) Saved
Andover	\$ 90,170	81,340	1,222,200	11	—	—	3,117	55,190	\$ 23,903	\$ 376,644	57
Ansonia	\$ 992,398	1,661,295	21,196,819	217	43,622	909,044	6,004	128,668	\$ 353,117	\$ 4,993,939	924
Ashford	\$ 100,996	182,495	1,972,916	17	—	—	2,350	46,203	\$ 38,834	\$ 471,838	88
Avon	\$ 1,297,746	1,112,515	13,106,917	255	19,363	338,291	24,734	527,757	\$ 289,691	\$ 4,209,824	767
Barkhamsted	\$ 130,572	159,251	1,915,645	27	285	4,278	3,382	68,908	\$ 38,195	\$ 535,130	94
Beacon Falls	\$ 153,115	176,467	2,189,239	45	2,942	61,227	5,383	107,878	\$ 50,307	\$ 768,907	136
Berlin	\$ 2,173,433	3,827,878	47,233,802	340	34,169	638,914	15,527	315,179	\$ 747,755	\$ 9,619,434	1,714
Bethany	\$ 279,011	269,710	3,228,714	60	—	—	11,248	241,615	\$ 81,277	\$ 1,282,819	210
Bethel	\$ 1,179,976	1,124,731	13,827,401	298	67,379	1,088,674	12,552	253,397	\$ 306,240	\$ 4,355,945	954
Bethlehem	\$ 141,428	81,597	883,700	14	—	—	3,663	75,987	\$ 25,624	\$ 386,583	63
Bloomfield	\$ 3,332,212	7,324,111	93,591,529	1,131	59,570	1,138,010	31,039	661,611	\$ 1,427,767	\$ 19,009,679	3,266
Bolton	\$ 258,421	126,011	1,569,705	15	—	—	7,103	159,753	\$ 43,693	\$ 753,611	117
Bozrah	\$ 300	75	1,125	—	37	558	42	634	\$ 181	\$ 2,783	1
Branford	\$ 1,706,616	2,322,307	28,154,223	444	54,727	1,055,555	21,107	419,213	\$ 525,832	\$ 7,216,349	1,385
Bridgeport	\$ 6,661,244	9,864,897	104,202,131	1,224	162,391	3,175,210	19,487	429,297	\$ 1,942,857	\$ 22,422,628	4,701
Bridgewater	\$ 108,933	148,464	1,917,897	7	—	—	3,968	82,550	\$ 37,767	\$ 571,335	95
Bristol	\$ 2,928,325	2,840,374	35,007,191	510	65,007	1,164,621	61,024	1,254,207	\$ 749,787	\$ 11,064,566	2,038
Brookfield	\$ 819,282	1,548,535	20,769,321	247	3,241	57,416	19,900	397,690	\$ 332,724	\$ 4,762,029	769
Brooklyn	\$ 198,130	183,909	2,171,285	32	1,841	32,846	8,061	157,032	\$ 58,366	\$ 878,043	163
Burlington	\$ 266,427	167,836	2,000,507	41	1,412	24,587	13,217	272,698	\$ 72,231	\$ 1,224,283	190
Canaan	\$ 86,669	150,482	1,913,007	25	—	—	693	13,373	\$ 28,194	\$ 361,166	60
Canterbury	\$ 131,407	87,154	1,157,667	11	—	—	6,239	103,520	\$ 34,492	\$ 515,782	92
Canton	\$ 390,077	845,186	6,548,038	147	1,715	37,661	13,468	269,840	\$ 190,474	\$ 1,988,095	434
Chaplin	\$ 86,593	111,600	1,338,086	25	—	—	2,367	46,445	\$ 26,549	\$ 365,038	64
Cheshire	\$ 2,550,850	4,481,839	56,376,894	627	19,892	394,272	47,404	968,935	\$ 943,120	\$ 12,866,032	2,186
Chester	\$ 315,757	502,339	4,726,610	95	63	1,259	3,143	57,585	\$ 96,741	\$ 969,977	208
Clinton	\$ 402,787	545,710	6,782,620	96	5,814	104,389	11,173	222,066	\$ 135,185	\$ 1,939,786	343
Colchester	\$ 614,859	594,803	8,313,665	87	522	10,442	13,690	268,841	\$ 145,499	\$ 2,225,168	355
Colebrook	\$ 78,216	88,440	1,160,738	16	—	—	1,696	32,325	\$ 20,681	\$ 296,554	46
Columbia	\$ 187,880	2,428	411,136	(25)	—	—	4,903	105,493	\$ 15,422	\$ 390,949	52
Cornwall	\$ 54,650	70,479	783,597	7	—	—	1,965	40,313	\$ 18,228	\$ 254,543	45
Coventry	\$ 296,238	261,403	3,209,951	34	217	3,385	13,748	279,457	\$ 87,958	\$ 1,404,191	232
Cromwell	\$ 568,517	542,845	6,186,555	87	17,543	313,870	14,830	302,406	\$ 159,251	\$ 2,345,302	446
Danbury	\$ 2,471,028	3,652,156	45,878,176	490	83,099	1,135,672	46,644	933,244	\$ 865,895	\$ 11,866,778	2,287
Darien	\$ 717,652	443,994	5,073,928	103	23,419	529,245	21,411	435,114	\$ 167,264	\$ 2,783,823	536
Deep River	\$ 130,908	443,318	6,352,585	53	—	—	3,303	62,339	\$ 86,800	\$ 1,251,782	191
Derby	\$ 748,396	685,701	8,333,305	106	15,499	366,049	4,120	88,125	\$ 147,942	\$ 2,085,560	384
Durham	\$ 577,547	573,172	6,745,406	131	11,783	127,925	8,200	174,203	\$ 137,513	\$ 1,818,467	356
East Granby	\$ 338,673	354,483	4,263,410	65	1,763	30,460	9,873	207,376	\$ 94,207	\$ 1,399,892	229

### Case Study: Urstadt Biddle Properties Inc.

The newly-constructed **Urstadt Biddle Properties Inc.** (UB) Stratford self-storage facility is an emerging net zero energy building. UB Stratford worked closely with United Illuminating and Chandler, LLC to optimize the 130,000 square-foot building's energy and environmentally-conscious design, including the installation of energy-efficient LED lighting, heat pumps, heating and cooling systems, electric vehicle charging stations, and canopy lighting. UB Stratford leveraged \$400,000 in incentives to enhance the building's design and increase solar energy readiness. UB Stratford is expected to save an estimated \$40,350 in annual energy costs.



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 <sub>2</sub> (Tons) Saved
East Haddam	\$ 256,279	150,201	1,731,268	24	—	—	11,847	255,095	\$ 62,847	\$ 1,083,406	169
East Hampton	\$ 324,291	300,465	3,891,359	41	500	11,424	11,491	228,400	\$ 88,110	\$ 1,369,232	224
East Hartford	\$ 3,323,639	5,241,270	56,549,445	884	108,923	2,145,789	37,113	702,377	\$ 1,138,408	\$ 14,090,076	2,927
East Haven	\$ 1,899,592	1,628,655	20,301,308	266	133,417	2,179,078	13,883	303,830	\$ 468,834	\$ 6,856,416	1,568
East Lyme	\$ 718,477	731,281	9,734,526	130	1,880	30,397	25,388	530,089	\$ 208,424	\$ 3,332,312	506
East Windsor	\$ 1,194,302	2,495,245	30,858,289	280	13,383	272,620	8,496	168,370	\$ 472,643	\$ 5,995,890	1,046
Eastford	\$ 31,051	51,138	749,597	7	—	—	646	11,439	\$ 10,843	\$ 160,510	25
Easton	\$ 395,681	425,492	5,011,368	101	2,304	50,692	8,394	186,017	\$ 101,867	\$ 1,466,419	252
Ellington	\$ 542,787	714,776	8,589,859	127	13,620	150,328	14,660	294,271	\$ 183,506	\$ 2,512,949	489
Enfield	\$ 2,207,573	2,754,026	33,081,169	523	61,048	1,362,528	34,564	724,713	\$ 648,149	\$ 9,320,827	1,724
Essex	\$ 241,957	267,033	3,395,232	45	2,590	51,806	7,873	166,004	\$ 73,246	\$ 1,138,624	191
Fairfield	\$ 2,474,462	3,084,848	36,981,120	498	55,848	1,032,028	21,808	483,438	\$ 660,876	\$ 8,854,644	1,671
Farmington	\$ 2,006,961	1,516,420	19,024,996	336	59,293	918,686	20,641	421,966	\$ 389,685	\$ 5,534,150	1,129
Franklin	\$ 80,618	100,829	1,205,557	16	175	3,261	3,166	66,473	\$ 27,492	\$ 411,948	68
Glastonbury	\$ 1,712,625	1,092,434	13,270,361	230	20,319	373,625	28,578	586,516	\$ 299,176	\$ 4,460,077	804
Goshen	\$ 202,852	102,632	1,492,856	19	25	372	5,393	111,937	\$ 34,456	\$ 595,541	91
Granby	\$ 332,345	214,067	2,496,451	39	1,889	30,047	11,886	245,766	\$ 75,687	\$ 1,208,739	209
Greenwich	\$ 1,227,939	1,296,321	14,381,392	271	62,519	1,220,032	19,962	360,783	\$ 353,452	\$ 4,931,755	1,059
Griswold	\$ 543,605	407,262	6,431,100	43	6,253	125,052	7,819	159,223	\$ 101,699	\$ 1,719,100	258
Groton	\$ 259,876	17,823	190,036	6	78,933	702,337	2,501	49,293	\$ 96,402	\$ 1,002,491	534
Guilford	\$ 950,449	1,084,059	12,088,027	220	5,650	107,275	36,170	753,081	\$ 305,214	\$ 4,465,519	786
Haddam	\$ 240,268	250,234	3,225,325	44	—	—	9,763	201,531	\$ 73,598	\$ 1,162,871	185
Hamden	\$ 4,134,826	3,972,829	40,443,831	543	101,982	2,060,809	27,414	595,496	\$ 881,272	\$ 10,964,043	2,341
Hampton	\$ 34,278	49,499	623,449	5	—	—	1,000	16,991	\$ 11,680	\$ 156,796	27
Hartford	\$ 10,391,140	13,005,179	156,896,630	2,311	342,703	5,105,235	22,322	433,687	\$ 2,690,832	\$ 33,501,599	6,975
Hartland	\$ 51,651	29,612	360,987	6	74	1,116	2,486	55,989	\$ 12,727	\$ 230,766	38
Harwinton	\$ 189,437	181,163	2,523,904	22	616	9,592	6,174	125,513	\$ 50,915	\$ 816,073	132
Hebron	\$ 289,738	407,481	5,083,400	61	12	207	7,888	157,928	\$ 94,515	\$ 1,329,155	228
Kent	\$ 168,189	127,589	1,795,046	24	12	186	4,941	107,689	\$ 37,177	\$ 628,302	97
Killingly	\$ 1,420,523	2,193,668	24,138,777	351	25,753	264,615	15,621	314,073	\$ 455,316	\$ 5,301,321	1,099
Killingworth	\$ 150,735	123,309	1,489,599	21	—	—	6,457	123,995	\$ 41,166	\$ 628,988	110
Lebanon	\$ 322,094	451,469	4,643,039	139	—	—	4,802	94,451	\$ 93,325	\$ 1,074,303	202
Ledyard	\$ 769,363	1,045,829	11,866,715	219	72,092	409,362	13,476	269,949	\$ 300,179	\$ 3,281,406	970
Lisbon	\$ 114,295	135,884	1,324,608	14	—	—	4,499	89,264	\$ 37,445	\$ 497,254	93
Litchfield	\$ 471,202	290,874	3,418,424	48	1,447	23,355	21,741	467,126	\$ 119,304	\$ 2,044,788	328
Lyme	\$ 63,987	43,790	727,563	8	25	372	2,837	58,467	\$ 16,396	\$ 302,976	44
Madison	\$ 784,902	572,280	8,436,259	76	5,798	98,065	24,751	512,521	\$ 181,821	\$ 3,108,424	488
Manchester	\$ 3,010,734	5,944,634	77,546,799	863	70,148	1,337,710	33,250	670,823	\$ 1,206,634	\$ 16,571,804	2,881
Mansfield	\$ 1,792,313	3,390,485	43,543,264	594	32,715	557,780	7,985	157,945	\$ 646,919	\$ 8,415,208	1,479
Marlborough	\$ 154,962	85,537	1,120,629	18	—	—	7,688	157,002	\$ 38,879	\$ 679,455	103
Meriden	\$ 5,115,219	4,807,532	63,449,780	866	92,396	1,820,331	42,364	880,508	\$ 1,062,005	\$ 15,422,983	2,718
Middlebury	\$ 278,711	232,898	3,047,794	38	2,823	49,487	12,822	270,805	\$ 82,820	\$ 1,400,507	232
Middlefield	\$ 166,534	232,677	2,524,997	41	366	6,264	4,870	95,538	\$ 55,501	\$ 719,969	136
Middletown	\$ 3,792,165	5,620,836	58,836,627	816	135,321	1,794,034	36,379	752,958	\$ 1,230,983	\$ 14,225,914	3,213

## Case Study: Beverly Pizza



For nearly 60 years, **Beverly Pizza** has served customers in the City of Bridgeport. Operating in a distressed municipality, the restaurant qualified for Microbusiness Energy Assistance (MEA) pilot incentives to upgrade the building's interior and exterior lighting, replace the old gas furnace and gas-fired water heater with new high-efficiency equipment, install an ENERGY STAR certified air conditioning unit, and update vending machine controls. The \$43,000 in MEA incentives made the upgrades financially feasible, covering 75 percent of the project costs.

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 <sub>2</sub> (Tons) Saved
Milford	\$ 3,229,438	5,044,362	59,774,739	698	95,128	1,760,066	15,681	351,760	\$ 1,024,492	\$ 13,125,621	2,535
Monroe	\$ 704,380	327,812	3,408,023	82	16,859	325,436	24,251	509,209	\$ 148,445	\$ 2,488,663	488
Montville	\$ 518,190	443,774	5,723,049	70	54,272	412,824	12,340	241,323	\$ 173,524	\$ 2,176,140	629
Morris	\$ 140,538	87,761	1,193,631	15	—	—	4,848	103,366	\$ 30,244	\$ 520,902	79
Naugatuck	\$ 1,553,617	1,036,572	13,553,590	193	27,940	538,823	34,167	676,040	\$ 314,394	\$ 4,963,679	899
New Britain	\$ 3,130,402	3,103,158	36,595,037	650	118,801	1,935,431	26,178	511,726	\$ 745,534	\$ 9,925,967	2,126
New Canaan	\$ 673,837	464,594	5,360,459	114	15,447	263,630	24,811	495,033	\$ 173,604	\$ 2,729,939	515
New Fairfield	\$ 434,441	220,346	3,063,393	30	87	1,302	18,281	387,355	\$ 94,210	\$ 1,699,388	270
New Hartford	\$ 267,894	269,927	3,369,808	47	657	9,858	9,440	196,905	\$ 76,216	\$ 1,173,634	199
New Haven	\$ 8,720,934	11,372,680	131,114,783	1,788	562,787	7,378,246	17,451	390,545	\$ 2,631,495	\$ 31,694,363	7,759
New London	\$ 2,145,190	2,360,069	23,569,271	379	36,461	639,823	10,779	225,110	\$ 480,739	\$ 5,367,218	1,176
New Milford	\$ 950,789	1,846,033	19,290,643	295	15,738	175,708	26,142	521,630	\$ 417,133	\$ 5,033,752	1,015
Newington	\$ 1,242,302	1,891,056	21,181,806	341	40,419	719,571	17,761	365,836	\$ 425,170	\$ 5,490,351	1,111
Newtown	\$ 1,342,577	1,337,654	16,142,027	277	30,892	559,359	38,382	809,698	\$ 382,629	\$ 5,830,208	1,067
Norfolk	\$ 33,921	19,698	251,580	3	—	—	1,913	40,328	\$ 9,235	\$ 164,563	27
North Branford	\$ 866,431	1,800,974	21,533,975	235	8,232	89,117	7,638	164,123	\$ 343,898	\$ 4,203,447	766
North Canaan	\$ 173,608	649,484	3,844,104	24	99	1,488	3,439	69,963	\$ 123,096	\$ 858,979	264
North Haven	\$ 1,810,487	2,614,312	30,943,582	437	41,281	646,308	32,324	694,557	\$ 596,037	\$ 8,048,909	1,521
North Stonington	\$ 201,748	186,672	2,222,910	25	186	2,790	7,710	153,855	\$ 55,964	\$ 842,071	150
Norwalk	\$ 3,583,778	4,076,585	44,717,226	542	181,677	3,089,104	77,084	1,437,522	\$ 1,138,602	\$ 15,470,713	3,393
Old Lyme	\$ 635,634	425,148	6,619,366	49	—	—	15,518	338,791	\$ 122,888	\$ 2,185,327	287
Old Saybrook	\$ 562,662	709,662	8,678,109	113	5,868	83,007	15,147	313,007	\$ 176,356	\$ 2,522,475	434
Orange	\$ 1,636,100	2,982,269	27,664,589	356	27,196	427,469	45,046	812,909	\$ 684,076	\$ 7,607,880	1,685
Oxford	\$ 484,022	374,047	4,372,653	77	6,565	119,761	19,777	407,016	\$ 132,933	\$ 2,127,677	373
Plainfield	\$ 724,297	1,320,910	15,541,895	146	6,171	94,912	16,016	324,793	\$ 284,313	\$ 3,700,548	671
Plainville	\$ 1,149,810	869,876	10,197,437	136	32,151	674,960	16,003	333,500	\$ 234,689	\$ 3,515,322	674
Plymouth	\$ 453,944	686,816	8,462,802	148	5,864	113,976	8,414	166,930	\$ 151,203	\$ 2,062,174	364
Pomfret	\$ 190,039	325,455	3,818,553	65	169	2,831	2,743	55,723	\$ 65,014	\$ 814,391	143
Portland	\$ 582,881	580,350	7,097,061	130	22,451	171,831	11,956	247,979	\$ 161,187	\$ 2,140,468	475
Preston	\$ 86,848	53,790	647,014	10	—	—	3,873	77,435	\$ 21,408	\$ 350,176	56
Prospect	\$ 372,461	297,593	3,611,103	70	1,390	24,008	15,616	449,634	\$ 100,804	\$ 2,000,638	277
Putnam	\$ 1,055,335	1,509,824	18,960,495	230	4,175	76,704	4,286	82,437	\$ 279,187	\$ 3,515,688	598
Redding	\$ 303,384	154,853	1,930,206	56	1,307	20,746	14,221	297,318	\$ 72,045	\$ 1,263,957	208
Ridgefield	\$ 861,963	648,590	7,049,101	138	28,621	426,603	31,213	644,921	\$ 238,783	\$ 3,645,757	738
Rocky Hill	\$ 953,977	1,045,442	12,314,755	153	79,361	1,225,134	9,816	193,552	\$ 296,851	\$ 4,072,668	977
Roxbury	\$ 135,811	34,764	541,544	10	50	744	6,223	125,828	\$ 25,400	\$ 482,509	74
Salem	\$ 156,342	149,412	2,099,845	23	—	—	4,262	83,554	\$ 38,953	\$ 607,593	97
Salisbury	\$ 104,022	92,296	1,220,839	16	—	—	3,429	63,604	\$ 26,478	\$ 398,555	68
Scotland	\$ 24,583	17,951	239,196	2	—	—	1,196	26,220	\$ 6,876	\$ 122,706	17
Seymour	\$ 1,448,872	1,548,987	18,838,911	331	8,999	150,693	26,465	560,788	\$ 359,168	\$ 5,046,875	874
Sharon	\$ 46,594	44,808	481,330	6	—	—	3,187	66,077	\$ 17,826	\$ 290,120	45
Shelton	\$ 2,083,594	2,758,306	35,983,447	407	90,749	1,869,916	27,744	610,852	\$ 662,193	\$ 10,097,184	1,816
Sherman	\$ 132,427	49,624	743,372	9	25	372	5,196	100,777	\$ 24,659	\$ 436,342	70
Simsbury	\$ 1,014,407	890,918	9,164,086	203	26,669	554,374	30,263	654,135	\$ 275,154	\$ 4,164,399	808

## Case Study: The Princeton Center

The **Princeton Center**, owned by Siemon Realty, is a Watertown landmark and home to a wide range of local businesses. To attract and retain tenants, the facility was upgraded with state-of-the-art technology and energy-efficient lighting and building systems. A networked building automation system was installed to monitor and control all the facility's heating and cooling. Due to the upgrades, the Princeton Center will realize more than 600,000 kWh of electricity and 3,000 cubic feet of natural gas savings a year.



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 <sub>2</sub> (Tons) Saved
Somers	\$ 331,893	510,988	6,353,266	68	674	11,379	9,363	196,699	\$ 118,191	\$ 1,685,637	277
South Windsor	\$ 1,456,343	2,990,849	39,518,384	434	58,420	890,799	17,142	331,999	\$ 633,353	\$ 8,656,105	1,602
Southbury	\$ 1,083,968	2,401,359	18,891,038	452	27,179	418,420	23,811	487,381	\$ 519,444	\$ 5,167,685	1,245
Southington	\$ 2,268,731	2,435,902	29,723,995	489	90,362	1,793,775	38,436	784,572	\$ 639,115	\$ 9,497,998	1,807
Sprague	\$ 73,966	85,619	960,921	16	349	6,598	2,537	51,912	\$ 22,922	\$ 325,842	59
Stafford	\$ 259,783	344,489	3,995,913	50	58	1,157	8,915	183,556	\$ 86,794	\$ 1,225,955	217
Stamford	\$ 5,773,178	6,722,021	85,508,455	1,183	230,386	3,943,169	61,550	1,224,412	\$ 1,601,663	\$ 22,632,997	4,469
Sterling	\$ 77,979	109,219	1,272,788	20	—	—	1,993	37,459	\$ 25,016	\$ 327,134	59
Stonington	\$ 2,517,329	3,148,688	38,975,719	541	24,814	486,942	29,763	608,483	\$ 662,669	\$ 8,935,045	1,579
Stratford	\$ 3,557,669	4,403,307	55,815,434	635	117,584	2,091,075	22,857	507,668	\$ 959,160	\$ 13,310,196	2,538
Suffield	\$ 1,778,095	3,861,652	42,223,508	625	35,323	356,443	19,166	395,009	\$ 765,746	\$ 8,690,812	1,775
Thomaston	\$ 416,501	465,604	4,685,326	165	4,650	86,536	9,243	193,049	\$ 113,830	\$ 1,472,229	291
Thompson	\$ 217,777	208,030	2,693,401	38	—	—	7,378	158,282	\$ 58,909	\$ 941,564	146
Tolland	\$ 1,004,644	929,850	11,492,642	182	5,431	78,986	27,683	538,271	\$ 251,683	\$ 3,664,646	650
Torrington	\$ 1,919,349	2,175,563	25,112,978	421	37,440	673,646	22,104	426,194	\$ 485,470	\$ 6,297,607	1,224
Trumbull	\$ 2,243,371	2,330,674	28,354,879	407	58,318	1,152,686	38,402	855,585	\$ 582,858	\$ 8,671,937	1,609
Union	\$ 28,210	16,240	201,892	3	—	—	1,743	39,350	\$ 8,076	\$ 152,490	25
Vernon	\$ 1,286,956	1,147,651	13,685,792	165	41,888	756,526	19,532	407,373	\$ 303,361	\$ 4,402,833	881
Voluntown	\$ 132,231	118,940	1,377,362	26	—	—	2,579	49,330	\$ 28,557	\$ 381,891	68
Wallingford	\$ 367,339	72,028	1,290,221	13	59,200	804,774	143	2,167	\$ 77,057	\$ 1,158,626	404
Warren	\$ 35,253	19,747	196,334	3	—	—	2,565	51,670	\$ 11,296	\$ 191,147	34
Washington	\$ 100,052	65,033	834,643	18	—	—	6,132	123,815	\$ 30,418	\$ 527,054	82
Waterbury	\$ 8,276,386	4,991,285	60,667,685	839	275,178	4,621,311	70,153	1,417,500	\$ 1,377,664	\$ 19,875,173	4,228
Waterford	\$ 965,486	1,327,621	16,924,309	233	2,999	53,803	23,758	482,522	\$ 305,588	\$ 4,362,897	736
Watertown	\$ 1,022,337	736,285	8,637,126	161	17,284	316,375	24,978	515,228	\$ 223,089	\$ 3,398,562	624
West Hartford	\$ 3,199,868	3,892,124	44,849,152	680	102,781	2,079,377	36,004	716,477	\$ 894,733	\$ 12,096,621	2,404
West Haven	\$ 3,009,710	3,242,424	36,266,170	434	175,982	2,181,793	28,188	621,569	\$ 838,297	\$ 10,506,332	2,552
Westbrook	\$ 432,461	1,070,592	11,165,028	141	3,815	62,336	8,730	172,487	\$ 216,147	\$ 2,465,889	492
Weston	\$ 221,122	96,614	1,082,063	26	886	18,754	13,732	286,113	\$ 59,332	\$ 1,069,522	189
Westport	\$ 831,677	490,487	5,913,128	113	17,240	306,610	30,260	619,115	\$ 196,097	\$ 3,236,422	601
Wethersfield	\$ 1,012,306	1,041,795	9,951,793	188	33,377	718,270	16,071	306,853	\$ 265,512	\$ 3,433,432	749
Willington	\$ 374,640	106,132	1,411,842	20	—	—	8,764	199,074	\$ 46,709	\$ 882,052	109
Wilton	\$ 611,372	773,943	11,801,038	124	2,988	51,771	29,745	623,168	\$ 227,868	\$ 3,932,748	608
Winchester	\$ 380,045	312,093	3,698,599	45	13,417	235,453	8,122	174,549	\$ 93,527	\$ 1,428,569	279
Windham	\$ 758,893	1,049,738	13,243,934	146	19,430	355,732	11,049	215,440	\$ 236,691	\$ 3,288,213	606
Windsor	\$ 3,104,520	2,335,805	24,608,603	550	49,810	811,548	38,287	798,105	\$ 575,042	\$ 7,490,636	1,544
Windsor Locks	\$ 1,055,738	1,996,446	21,633,165	378	31,231	481,346	12,511	265,662	\$ 417,622	\$ 4,987,793	1,031
Wolcott	\$ 638,468	399,359	5,060,246	81	5,755	109,702	26,071	549,566	\$ 156,801	\$ 2,688,890	428
Woodbridge	\$ 585,832	294,122	2,369,759	65	12,220	210,738	18,539	420,302	\$ 120,907	\$ 1,928,486	376
Woodbury	\$ 552,323	186,583	2,364,991	43	1,824	28,577	16,497	339,951	\$ 85,144	\$ 1,475,119	245
Woodstock	\$ 230,308	345,504	4,272,024	50	—	—	7,448	144,571	\$ 83,032	\$ 1,163,454	193

## Case Study: O&G Industries

Founded in 1923, **O&G Industries** owns and operates a network of asphalt plants, ready-mix concrete plants, quarries, and mason supply yards. To increase productivity and efficiency across the organization, O&G Industries worked with Eversource to reduce energy use at its locations in Beacon Falls, Danbury, Harwinton, New Milford, Southbury, Stamford, and Waterbury. The projects included high-efficiency upgrades such as lighting, insulation, and air leak repairs, as well as optimizing asphalt operations through Energy Utilization Assessments. The improvements completed will cut lifetime carbon emissions by more than 28,000 tons, the equivalent of removing more than 5,600 cars from the road.

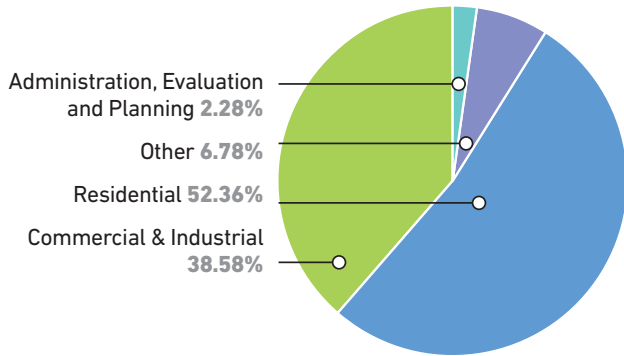




# 2021 Actual Spending / 2022 Budget

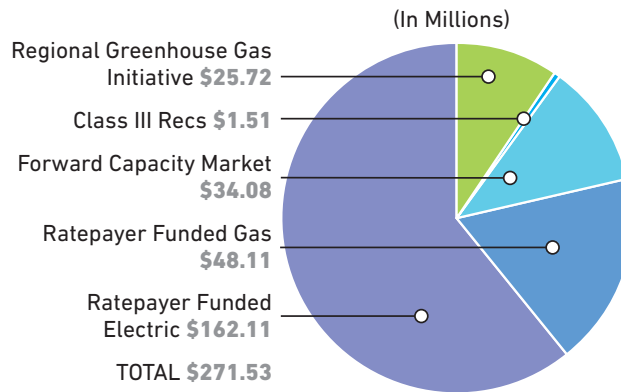
## 2021 EFFICIENCY PROGRAM SPENDING

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



## 2021 EFFICIENCY PROGRAM FUNDING

Funding for energy efficiency programs comes from many sources. Funding reflects 2021 revenues received.



2021 Energy Efficiency Programs	2021 Actuals Electric	2022 Plan Electric	2021 Actuals Natural Gas	2022 Plan Natural Gas
<b>RESIDENTIAL</b>				
Residential Retail Products	\$ 10,615,373	\$ 4,919,503	\$ —	\$ —
Residential New Construction	3,735,341	4,409,350	849,551	2,208,208
Home Energy Solutions - Core Services	40,217,082	25,323,557	13,014,504	6,722,824
HVAC and Water Heating Equipment	14,321,309	15,909,986	11,080,746	9,329,812
Home Energy Solutions - Income Eligible	24,882,297	21,452,833	12,911,789	10,939,269
Residential Behavior	68,544	382,027	207,434	305,085
<b>Subtotal Residential</b>	<b>\$ 93,839,946</b>	<b>\$ 72,397,255</b>	<b>\$ 38,064,024</b>	<b>\$ 29,505,198</b>
<b>COMMERCIAL &amp; INDUSTRIAL</b>				
Energy Conscious Blueprint	\$ 18,506,866	\$ 17,362,967	\$ 10,374,546	\$ 7,767,850
Energy Opportunities	42,836,477	43,151,312	2,408,722	5,976,629
Business & Energy Sustainability (O&M, RetroCx, BSC, PRIME)	1,275,685	4,283,470	965,677	1,852,664
Small Business	19,297,148	17,344,006	794,255	1,279,309
<b>Subtotal C&amp;I</b>	<b>\$ 81,916,176</b>	<b>\$ 82,141,755</b>	<b>\$ 14,543,199</b>	<b>\$ 16,876,453</b>
<b>OTHER—EDUCATION, ENGAGEMENT &amp; FINANCING</b>				
Customer Engagement	\$ 876,301	\$ 480,000	\$ 137,851	\$ 170,000
Educate the Public	669,672	960,000	70,754	240,000
Educate the Students	415,766	920,000	79,455	230,000
Educate the Workforce	424,069	992,000	53,354	248,000
Residential Loan Program (Includes ECLF and OBR)	928,738	2,650,799	77,705	257,107
C&I Financing Support	812,014	1,085,000	2,427	188,905
Research, Development & Demonstration	59,021	313,477	100,440	150,000
<b>Subtotal Education, Engagement &amp; Financing</b>	<b>\$ 4,185,580</b>	<b>\$ 7,401,276</b>	<b>\$ 521,987</b>	<b>\$ 1,484,012</b>
<b>OTHER—LOAD MANAGEMENT</b>				
Residential Demand Response	\$ 3,120,477	\$ 3,420,814	\$ —	\$ 206,953
C&I Demand Response	3,550,222	4,568,975	—	280,584
<b>Subtotal Load Management</b>	<b>\$ 6,670,699</b>	<b>\$ 7,989,789</b>	<b>\$ —</b>	<b>\$ 487,537</b>
<b>OTHER—ADMINISTRATIVE &amp; PLANNING</b>				
Administration	\$ 902,666	\$ 1,090,117	\$ 398,211	\$ 469,370
Marketing Plan	604,205	551,780	201,930	120,300
Planning	1,067,268	876,990	278,116	284,088
Evaluation Measurement and Verification	2,400,000	3,600,000	600,000	900,000
Evaluation Administrator	309,568	355,289	72,410	88,821
Information Technology	2,298,759	2,974,261	846,618	1,255,904
Energy Efficiency Board Consultants	498,346	640,001	178,537	159,999
Audits - Financial and Operational	84,000	84,000	30,000	30,000
Performance Management Incentive (PMI)	11,287,127	8,951,161	2,538,464	2,569,143
<b>Subtotal Administrative &amp; Planning</b>	<b>\$ 19,451,939</b>	<b>\$ 19,123,599</b>	<b>\$ 5,144,287</b>	<b>\$ 5,877,626</b>
<b>TOTAL ENERGY EFFICIENCY BUDGET</b>	<b>\$ 206,064,340</b>	<b>\$ 189,053,674</b>	<b>\$ 58,273,497</b>	<b>\$ 54,230,826</b>

# 2021 Savings

## 2021 Residential Program Savings



**Savings:**  
Annual:  
**\$31.8 Million**  
Lifetime:  
**\$409.2 Million**



**Projects and Rebates:**  
**987,877**



**CO<sub>2</sub> Emissions Reduced:**  
Annual:  
**81,377 Tons**  
Lifetime:  
**1,254,715 Tons\***



### Energy Savings

**kWh = Electricity**  
Annual:  
**85.8 Million**  
Lifetime:  
**672.3 Million**

**ccf = Natural Gas**  
Annual:  
**3.6 Million**  
Lifetime:  
**69.1 Million**

**Gallons = Fuel Oil and Propane**  
Annual:  
**2.7 Million**  
Lifetime:  
**55.6 Million**

## 2021 Commercial & Industrial Program Savings



**Savings:**  
Annual:  
**\$30.3 Million**  
Lifetime:  
**\$356.3 Million**



**Projects and Rebates:**  
**6,491**



**CO<sub>2</sub> Emissions Reduced:**  
Annual:  
**80,351 Tons**  
Lifetime:  
**943,510 Tons\***



### Energy Savings

**kWh = Electricity**  
Annual:  
**187.5 Million**  
Lifetime:  
**2.2 Billion**

**ccf = Natural Gas**  
Annual:  
**2.3 Million**  
Lifetime:  
**26.1 Million**

## Combined 2021 Residential, Commercial & Industrial Savings



**Savings:**  
Annual:  
**\$62.1 Million**  
Lifetime:  
**\$765.4 Million**



**Projects and Rebates:**  
**994,368**



**CO<sub>2</sub> Emissions Reduced:**  
Annual:  
**161.7 Thousand Tons**  
Lifetime:  
**2.2 Million Tons\***



### Energy Savings

**kWh = Electricity**  
Annual:  
**273.3 Million**  
Lifetime:  
**2.9 Billion**

**ccf = Natural Gas**  
Annual:  
**5.9 Million**  
Lifetime:  
**95.3 Million**

**Gallons = Fuel Oil and Propane**  
Annual:  
**2.7 Million**  
Lifetime:  
**55.6 Million**



\* CO<sub>2</sub> emissions are in short tons

# 2021 Key Benefits

## Energy Efficiency Is The Lowest Cost Energy Resource

At an average of 6 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, Eversource, United Illuminating, 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 \$4.57 of clean energy investment

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



## 41,487 Jobs

Clean energy investment supports 41,487 Connecticut jobs in HVAC, electrical, manufacturing, insulation, weatherization and solar industries. (Includes 33,573 efficiency jobs).<sup>1</sup>



## \$6.2 Billion increase to the gross state product

Generated by the Conservation and Load Management Plan (Eversource, United Illuminating, CNG, and SCG) and the Comprehensive Plan (Green Bank).<sup>2</sup>



## Energy savings equivalent to a 114 MW power plant

This is enough energy to power approximately 43,138 homes for a year.



## 196,807 tons of CO<sub>2</sub> emissions avoided, plus \$5.5 Million in public health costs saved

Supporting our state's drive towards carbon neutrality.<sup>3</sup>



## \$85.9 Million in Connecticut tax revenues

Generated from energy efficiency, renewable, and financing measures supported by the Conservation and Load Management Plan (Eversource, CNG, SCG, United Illuminating) and the Comprehensive Plan (Green Bank).<sup>4</sup>

The numbers presented are from the implementation of the 2019-2021 Conservation & Load Management Plan (C&LM) administered by Eversource, United Illuminating, CNG, and SCG and the 2021 Comprehensive Plan administered by the CT Green Bank. These numbers reflect 2021 annual savings and benefits calculated from C&LM and CT Green Bank reporting.

<sup>1</sup> 2021 CT Clean Industry Energy Report reflects 2020 data.

<sup>2</sup> 2020 Environment Northeast (ENE) (Based on updated formula data.)

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

<sup>4</sup> 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.

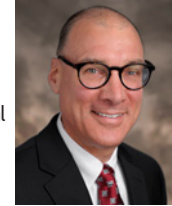
Energy efficiency programs and services are marketed under the statewide brand, Energize Connecticut, and provided by Eversource, United Illuminating, CNG, and SCG. The Board's members are drawn from private and public entities and represent a cross section of energy consumers including residents, businesses, non-profits, 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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Murtha Cullina  
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**Amy McLean**  
Vice-Chair  
Acadia Center  
21 Oak Street  
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**John Wright**  
Designee, Office of  
The Attorney General  
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New Board members for 2022 include: Kathy Fay, Neighborhood Housing Services of New Haven; Anne-Marie Knight, Black Business Alliance; Melissa Kops, City of New Haven; and Anthony Kosior, Yale University.

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