

# Energy Efficiency Board 2014 Programs and Operations Report











### The Year in Review

#### **EMPOWERING OUR STATE TO MAKE SMART ENERGY CHOICES**



The energy-saving programs offered through the Energy Efficiency Fund play a vital economic role for Connecticut. For every \$1 spent on energy efficiency, Connecticut receives electric, gas, fuel oil, and propane system benefits valued at nearly \$2.40.

This continued return on investment demonstrates that Energy Efficiency Fund programs are a powerful economic catalyst: they reduce customer costs, generate jobs, and make the state's businesses more competitive. Together with other initiatives being taken across the state, the accomplishments of the Energy Efficiency Fund are helping to make Governor Malloy's aggressive energy efficiency goals a reality.

On behalf of the Energy Efficiency Board, I am pleased to deliver the 2014 Programs and Operations Report to the Connecticut General Assembly. This annual report details the steps that the Energy Efficiency Fund has taken to fulfill its primary objective: empowering all of our state's residents and businesses to use energy more efficiently.

In 2014 we took a significant step towards market transformation with the wide-scale implementation of "instant discounts" or "upstream incentives" on key energy-efficient products such as residential heating, cooling, and water heating equipment, as well as replacement fixtures for commercial and industrial applications. By having the Energy Efficiency Fund incentive applied automatically at the point-of-purchase, distributors are more likely to stock the equipment, installers gain a competitive advantage, and consumers have a more convenient purchasing experience. Upstream discounts for residential lighting continued to be an effective tool as well, with the penetration of Funddiscounted LEDs into the marketplace increasing by 175 percent in 2014.

We also took steps to help customers with the challenge of high winter energy costs. Throughout 2014, the Energy Efficiency Fund worked with the utilities to mitigate the anticipated consumer impact of the next winter season by accelerating LED lighting options, targeting commercial and industrial facilities with high load factors, launching a statewide media campaign in the fall, and collaborating with the Northeast Energy Efficiency Partnerships on regional messaging.

Finally, we increased the visibility of the state's Energize Connecticut brand. Familiarity among residents grew by 26 percent due to a multi-media communications campaign deployed in the spring of 2014. This campaign helped improve awareness of the many smart energy resources represented by the brand and was an excellent showcase for energy efficiency and renewable solutions, along with financing opportunities.

As we move into 2015, we will continue to introduce innovative program design elements and seek out opportunities to maximize energy savings and collaborate with our partners and stakeholders - all so that we can meet the goals and deliver the energy, economic, and environmental benefits that our residents, businesses, and municipalities expect.

Sincerely,

Viin E. M

William E. Dornbos of Acadia Center and Chairperson of the Connecticut Energy Efficiency Board

#### **ENERGY EFFICIENCY FUND 2014 RESIDENTIAL PROGRAM SAVINGS**



**Customers Served** 989,190



CO<sub>2</sub> Emissions Reduced 129,211 Tons (Annual)



**Annual Savings** \$43.9 Million



Lifetime Savings \$517.5 Million



**MMBTUs** Annual 1.2 Million

Lifetime 17.7 Million



**Energy Savings** kWh Annual 168.0 Million kWh Lifetime 1.4 Billion

(kWh = Electricity, CCF = Natural Gas, Gallons = Fuel Oil & Propane) **CCF Annual** 3.4 Million **CCF Lifetime** 68.7 Million

**Gallons Annual** 2.1 Million **Gallons Lifetime** 42.5 Million

## About the Energy Efficiency Fund

Created in 1998 with the purpose of helping small and large businesses, homeowners and renters, and state and local government, the Energy Efficiency Fund supports an impressive portfolio of programs and initiatives designed to promote, encourage and facilitate the adoption of energy-efficient technologies and behaviors. These programs and their results are detailed in this report.

The Energy Efficiency Board (EEB) is an appointed group of 15 members representing private and public entities who serve and meet year-round. These members reflect a cross section of interests, providing representation for residential (including limited income), business, community (including not-for profit) and municipal consumers. The EEB is assisted by consultants who are experts in their respective fields. The purpose of the EEB is to advise and assist the Fund's administrators in both the development and implementation of energy efficiency programs and initiatives. The Energy Efficiency Fund is administered by Eversource Energy, The United Illuminating Company, Connecticut Natural Gas Corporation and The Southern Connecticut Gas Company. The EEB also oversees the energy efficiency programs of the Connecticut Municipal Electric Energy Cooperative (CMEEC) and the Wallingford Electric Division (WED). Their 2014 activities are also detailed in this report.

#### **EVALUATION**

Under the direction of the EEB, programs undergo impact evaluations conducted by independent third-party evaluators on a regular basis. The purpose of these impact evaluations is to verify that the reported savings are accurate

and also to help support continuous improvement in program performance. Eversource and UIL Holdings Corporation also prepare and file an annual report entitled Connecticut Program Savings Documentation (PSD), that provides detailed, comprehensive documentation of claimed resource savings corresponding to Energy Efficiency Fund programs. Savings from programs are reported to regulatory bodies and used to generate additional funding from both the ISO-New England Forward Capacity Market and Connecticut Class III Renewable energy markets and, therefore, the PSD and evaluations are a critical aspect of ensuring that program results are reliable and accurate.

#### **ENERGIZE CONNECTICUT**

Energize Connecticut is the overarching, public-facing brand that represents programs and services supported by the Energy Efficiency Fund and the Connecticut Green Bank. The primary message of the brand is captured in its tagline, "Empowering you to make smart energy choices." All of the program marketing and messaging administered by the utilities and the Connecticut Green Bank reflects this unified message, providing Connecticut residential, business and municipal customers with a comprehensive resource. EnergizeCT.com

is the statewide smart energy website, providing information on solution-specific energy resources for residential, business, community and municipal users.

# CONNECTICUT IS A NATIONALLY RECOGNIZED LEADER IN ENERGY EFFICIENCY

In their 2014 State Energy Scorecard, The American Council for an Energy-Efficient Economy (ACEEE) ranked Connecticut sixth in the nation. This top-tier ranking indicates that Connecticut's energy efficiency programs are national models to be emulated.

- ENERGY STAR® Award for Excellence for the Home Performance with ENERGY STAR program
- ENERGY STAR Award for Excellence for the promotion of ENERGY STAR through the retail program and the SmartLiving Center
- ENERGY STAR Sustained Excellence Award in conjunction with NEEP for the retail program.

#### ENERGY EFFICIENCY FUND 2014 COMMERCIAL & INDUSTRIAL PROGRAM SAVINGS



Businesses Served 6,003



CO<sub>2</sub> Emissions Reduced 125,934 Tons (Annual)



Annual Savings \$37.2 Million



Lifetime Savings \$460.8 Million



MMBTUs

Annual 1.0 Million Lifetime 12.8 Million



Energy Savings

kWh Annual 219.9 Million kWh Lifetime 2.7 Billion (kWh = Electricity, CCF = Natural Gas)

CCF Annual 2.9 Million CCF Lifetime 34.3 Million

Please note that the combined program totals can be found on the back cover of this report.

## Residential Energy Solutions

### HOME ENERGY SOLUTIONS<sup>SM</sup> (HES)

HES | HES-Income Eligible | Home Performance with ENERGY STAR®

The Home Energy Solutions program portfolio includes in-home services for every household, at every income level, to address every type of energy efficiency improvement – from weatherization, to water heating, to home heating and cooling equipment. These full service solutions bring needed energy expertise right into a customer's home using utility-authorized BPI professionals including home improvement contractors, oil dealers, heating and cooling contractors and insulation installers.

Maximizing the impact of the initial HES visit continued to be the major focus in 2014. That first visit, when the customer is fully engaged, is the best time to discover and communicate the value of taking additional energy-saving steps such as heating and cooling equipment upgrades, improved insulation and window replacements, and to discuss financing options. In fact, the redemption of rebates associated with these deeper measures increased by more than 20 percent in 2014. A variety of low-interest financing products are available through the Energy Efficiency Fund and the Connecticut Green Bank. Also in 2014, installation of LED light bulbs was added to the HES initial visit as a standard measure.

Participation through the Home Performance with ENERGY STAR (HPwES) program is another way consumers can take advantage of Energize Connecticut's

#### **Residential Financing**

Residential financing is in partnership with the Connecticut Housing Investment Fund (CHIF), the Connecticut Green Bank and AFC First Financial. Eligible Connecticut residents can finance home energy efficiency improvements with lowinterest loans.

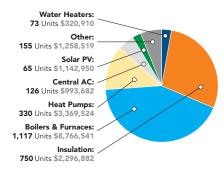
comprehensive energy efficiency opportunities and provides another channel to extend HES services through a broader market-based contractor community.

In 2014 the Multi-family Initiative continued its success by addressing energy saving opportunities including central heating and cooling systems, common areas, parking lot lighting, and mixed residential and commercial areas. The Multi-family Initiative gives owners and managers of these buildings access to multiple energy efficiency programs through a single point of contact.

In 2014 HES-Income Eligible (HES-IE) continued to partner with local municipalities to form city-wide initiatives promoting energy efficiency among

#### **2014 RESIDENTIAL FINANCING**

2014 residential financing totaled over \$18.1 million and 2,616 loans.



the fixed income demographic. HES-IE administrators worked in Bridgeport on an initiative to train youth from the Mayor's Conservation Corps. They received training on energy efficiency so that they could take that education back out into their community. Canvassing efforts in Bridgeport resulted in 400 HES-IE leads in 2014. Additionally, a light bulb exchange was held in Bridgeport, resulting in 698 incandescent bulbs exchanged for LED bulbs, resulting in an estimated annual savings of nearly \$7,400.

Another important partnership, with a property management company, resulted in a significant benefit for HES-IE customers throughout the state. HES-IE administrators reviewed and approved approximately 2,100 refrigerator replacement requests from a large, affordable-property owner, covering 31 sites throughout Connecticut. HES-IE worked with the property owner and reviewed each refrigerator model to determine the savings associated with replacement. Once the contracts were signed, the team worked quickly with the property manager, the refrigerator supplier and the tenants, resulting in a streamlined installation of all the refrigerators in advance of the winter peak and anticipated rising electric rates. This initiative resulted in an estimated nearly 1.5 million kilowatthours saved annually.

#### 2014 HOME ENERGY SOLUTIONS - INCOME ELIGIBLE



**Customers Served** 19.659



CO<sub>2</sub> Emissions Reduced 24,489 Tons (Annual)



Annual Savings



Lifetime Savings \$125.4 Million



**MMBTUs** 

Annual Lifetime 290.8 Thousand 5.5 Million



**Energy Savings** 

kWh Annual 14.9 Million kWh Lifetime 200.8 Million

**CCF** Annual 1.5 Million **CCF** Lifetime 29.2 Million

(kWh = Electricity, CCF = Natural Gas, Gallons = Fuel Oil & Propane) **Gallons Annual** 639.7 Thousand Gallons Lifetime 13.3 Million



#### CYNTHIA L., EAST HARTFORD (HES-IE)

Heat Source: Oil heat and hot water

#### **MEASURES COMPLETED**

Identified and sealed air leaks

Energy-efficient light bulbs

Hot water saving measures

Insulation upgrades to floors, sidewalls and attic

ENERGY STAR® refrigerator replacement

#### **ESTIMATED ANNUAL SAVINGS**

1,153 kWh saved annually

676 gallons of fuel oil saved annually

\$1,943 saved annually

"The services were the best thing ever! They insulated from the inside out and from the outside in. I'm really happy! I haven't had to order oil in three months which saves me money." Cynthia L.



#### JEN K., MIDDLETOWN (HES) HOME FACTS

Home Size: 1,234 Square Feet

Age of Home: 73 years

Heat Source: Oil heat and hot water

#### **MEASURES COMPLETED**

Identified and sealed air leaks

Energy-efficient light bulbs

Hot water saving measures

Insulation upgrades in attic, walls, basement ceiling and crawl space

#### **ESTIMATED ANNUAL SAVINGS**

Insulation rebate: \$622

Balance funded through CHIF 0% residential financing

**475 kWh** saved annually

277 gallons of fuel oil saved annually

\$941 saved annually

"At the end of the day, it's so nice to return to a comfortable house that we know is not only insulated properly, but is also saving us money on our monthly utility bill. We hope to use the savings in the future to continue making some of the energy efficiency upgrades recommended to us during our HES assessment." Jen K.



### RICH K., TRUMBULL (HES) HOME FACTS

**Home Size:** 1,300+ Square Feet

Cooling Source: Central air

Heat Source: Oil heat and hot water

#### **MEASURES COMPLETED**

Identified and sealed air leaks

Energy-efficient light bulbs

Hot water saving measures

Insulation upgrades in attic floor

Energy-efficient central air upgrade

**NEST** thermostat

#### **ESTIMATED ANNUAL SAVINGS**

Insulation rebate: \$975

HVAC rebate: \$500

968 kWh saved annually

**264 gallons** of fuel oil saved annually

\$1,541 saved annually

"The house this winter felt more snug and less drafty. The rebates really make a big difference, and that's important for homeowners to know. With making the change to the insulation and the HVAC system, I have certainly seen a change in my electric bill." Rich K.

#### 2014 HOME ENERGY SOLUTIONS



Customers Served 38.288



CO<sub>2</sub> Emissions Reduced 41,295 Tons (Annual)



**Annual Savings** 



Lifetime Savings \$212.3 Million



**MMBTUs** 

Annual Lifetime 453.5 Thousand 8.3 Million



**Energy Savings** 

kWh Annual 28.8 Million kWh Lifetime 343.6 Million

CCF Annual 1.6 Million CCF Lifetime 32.5 Million

(kWh = Electricity, CCF = Natural Gas, Gallons = Fuel Oil & Propane) Gallons Annual 1.4 Million Gallons Lifetime 28 5 Million

## Residential Energy Solutions

#### RESIDENTIAL NEW CONSTRUCTION

The Residential New Construction (RNC) program provides incentives to builders and/or homeowners to incorporate advanced energy-efficient technologies. The designs and technologies are confirmed through a comprehensive approach to measuring energy efficiency in a home called the HERS (Home Energy Rating System) Rating.

In 2014, the RNC program changed its approach to the first step of participation in the program, from ENERGY STAR® certification to a HERS rating. The goal was to capture greater participation in the program, while still achieving significant energy savings. The numbers have shown an increase from 25 percent market share (homes permitted in Connecticut) to 33 percent market share. All new homes are now able to obtain the same incentive levels regardless of fuel. Additional incentives are available for ENERGY STAR, LEED, NGBC and other certifications. This change to the program is also preparing builders for the 2015 IECC code cycle that will be adopted in the near future. The 2015 IECC will require HERS ratings with a score of 58. The RNC program is properly preparing builders for these future changes so that they can hit the ground running once it is mandatory.

The Connecticut Zero Energy Challenge was also completed in 2014. The Challenge continues to be an exciting and inspirational activity, garnering nationwide attention in the media and in the building community.

#### 2014 CT ZERO ENERGY CHALLENGE WINNERS

The annual CT Zero Energy Challenge is a design and build competition that acts as an educational platform to showcase the very best high performance, zero net energy homes in the RNC program.



#### **FIRST PLACE**

#### **Owners:**

Carl Benker and Elizabeth Wegner

Glastonbury Housesmith LLC

#### **Project Highlights**

- Entirely electric, fossil fuel-free house
- Thermomass concrete insulation system used in foundation
- Solar PV system that follows the sun's path
- Garage equipped with electric car charging stations
- State-of-the-art geothermal HVAC and water heating systems

"It was important to us to build a home that was both durable and energy-efficient. By doing so, we will not only save money in the long run, but also achieve a lower overall environmental impact. We followed the most current building science construction principles, and the house will use no fossil fuels anywhere. The builder, Glastonbury Housesmith, made the house a huge success in our eyes." Carl Benker & Elizabeth Wegner

#### 2014 RESIDENTIAL NEW CONSTRUCTION



**Customers Served** 



CO<sub>2</sub> Emissions Reduced 2,914 Tons (Annual)



**Annual Savings** 



Lifetime Savings \$16.3 Million



**MMBTUs** 

Lifetime 34.1 Thousand 705.9 Thousand



**Energy Savings** kWh Annual

3.0 Million kWh Lifetime 45.6 Million

CCF Annual 209.6 Thousand CCF Lifetime

4.8 Million

(kWh = Electricity, CCF = Natural Gas, Gallons = Fuel Oil & Propane) **Gallons Annual** 23.4 Thousand Gallons Lifetime 582.8 Thousand

#### **SECOND PLACE**

#### **Owners:**

Paul Lehto

#### **Builder:**

Lehto Design/Build

#### **Project Highlights**

- High efficiency insulation and triple pane windows
- Air source heat pumps for heating and cooling
- Evacuated tube solar thermal system
- Energy Recovery Ventilation (ERV) system
- 12 kilowatt grid-tied solar PV system

"This is the second year in a row that we participated in the Zero Energy Challenge and took home an award, a tremendous honor to us. With this home, we were able to incorporate advanced building techniques and the latest technology to bring it to net zero."

### THIRD PLACE

#### **Owners:**

Nick Lehto

The Taft School

#### **Builder:**

**BPC Green Builders** 

#### **Project Highlights**

- Durable, super insulated thermal envelope
- ENERGY STAR certified appliances used throughout the house
- High efficiency, heat pump hot water system
- Air source heat pumps for heating and cooling
- Low-flow faucets and toilets for water conservation

"One of my responsibilities at The Taft School is to always be looking for new and creative ways to cut operating costs. Taft is committed to building and renovating our properties with the goal of attaining the highest levels of energy efficiency and sustainability possible. We are proud of this home that will be used to house a Taft faculty family, and we will continue to emphasize innovation and energy efficiency in all of our school facilities."

Gil Thornfeldt, Taft School CFO/Business Manager



### **RETAIL LIGHTING**

The award-winning
Retail Products program
continues to promote the
sale of ENERGY STAR®
lighting products including
CFLs and light emitting
diode, or LED, light bulbs



in most of Connecticut's grocery, pharmacy, home improvement and big box retail stores. By working with lighting manufacturers and retailers to reduce the cost of energy-efficient lighting before reaching the retailers' shelves, customers can purchase discounted products without having to submit mail-in rebates or bring coupons to the store.

These discounted lighting products are also sold at events hosted by commercial and industrial businesses, state agencies, home shows, state and town community outreach events, and non-profit organizations. The Energy Efficiency Fund also supports the SmartLiving™ Catalog (www.smartlivingcatalog.com) for online purchase of a variety of lighting and other energy-efficient products. Additionally, the Fund continues to sponsor Shining Solutions, a fundraising program in which schools and community organizations sell CFLs and LEDs to raise money and expand awareness of the benefits of efficient lighting.

#### **ADVANCING THE SALE OF LED LIGHT BULBS**

The big lighting story continues to be the tremendous market adoption of LED light bulbs. Energy Efficiency Fund incentives on ENERGY STAR certified LEDs were introduced in 2011 with a limited number of products on store shelves. In 2014, ENERGY STAR certified 75 Watt and 100 Watt equivalent LED options were introduced to the consumer market, along with three-way LED bulbs. The program administrators discontinued incentives for specialty CFL products as affordable, higher quality LED options became available. In total, 1,552,636 LED light bulbs were sold in 2014 with a Fund incentive – representing 38 percent of our total residential lighting sales, compared to 13.8 percent in 2013.

2014 RETAIL LIGHTING PRODUCTS



#### **Products Sold**

CFLs 2,536,472 LEDs 1,552,636 Other Lighting 2,767



CO<sub>2</sub> Emissions Reduced 45,486 Tons (Annual)



#### **Energy Savings**

kWh Annual 92.2 Million kWh Lifetime 780.1 Million



Annual Lifetime
314.5 Thousand 2.7 Million



Annual Savings \$17.7 Million



Lifetime Savings \$150.3 Million

## Residential Energy Solutions

#### HEATING, COOLING, HOT WATER, APPLIANCES, ELECTRONICS

In 2014, residential consumers took advantage of a variety of rebates designed to encourage the purchase of ENERGY STAR® certified products by reducing the premium price tag usually associated with energy-efficient technology.

#### **Water Heater Instant Discounts**

Natural Gas Water Heaters

Heat Pump Water Heaters

### Heating, Cooling and ECM Rebates/Instant Discounts

Natural Gas, Oil, Propane Furnace/ Natural Gas Boiler

Heating/Ventilation/Air Conditioning (HVAC) (Additional incentives for Quality Installation & Verification program also available)

**Ductless Heat Pumps** 

Geothermal Systems

Electronically Commutated Motor – Circulator Pump

#### **Appliance On-Line Rebates**

Enervee Refrigerators

**Enervee Clothes Washers** 

Enervee Freezers

### MANUFACTURER PARTNERSHIPS AND EFFICIENT PRODUCT FINDER

In 2014, the utilities continued their heat pump water heater partnerships with manufacturers, wholesalers and retailers. Based on the successful partnership with GE in 2013, partnership opportunities were expanded in 2014 to include three national retailers and more than 20 wholesalers and independent retailers. These partnerships utilize an Energize Connecticut "upstream" or instant discount, applied at the point-of-sale. The overall goal of the upstream program is to create a market transformation



towards the stocking, sale and distribution of high efficiency equipment. Instant discounts are now available for natural gas water heaters (tankless, condensing and storage), high efficiency natural gas boilers, high efficiency furnaces, and ECM circulator pumps. Licensed contractors can purchase this discounted equipment from 46 distributors in 124 Connecticut locations. Through the upstream program, which included a multimedia marketing campaign targeting end users and contractors, we have seen as high as an 800 percent participation increase compared to 2013.

As a result of TopTen USA terminating their program in the United States, Eversource and the UIL Holdings Corporation teamed up with Enervee to add the "Efficient Product Finder" to Energize Connecticut's portfolio of consumer services. Launched in November, this pilot program offers a dynamic web-based platform (EnergizeCT.enervee.com) to help customers find the most energy-efficient products available on the market using an energy score which rates products based on energy efficiency and performance. This closed-loop marketing channel allows customers to access and redeem Energize CT rebates and has re-marketing capabilities that remind users of their product searches even after they have left the site.

#### 2014 RETAIL REBATES / INSTANT DISCOUNTS

	Number of Rebates/	Annua	l Energy Sa	vings	Lifetim	e Energy Sa	vings	ММ	вти	CO <sub>2</sub> S	avings	Dollar	Savings
	Instant Discounts	kWh	CCF	Oil/ Propane	kWh	CCF	Oil/ Propane	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime
Natural Gas Water Heater	1,758	_	110,898	_	_	2,089,304	_	11,411	214,989	669	12,598	\$ 131,914	\$ 2,485,251
Heat Pump Water Heater	1,391	2,185,875	_	_	21,858,750	_	_	7,460	74,604	1,079	10,789	\$ 420,319	\$ 4,203,193
HVAC (Central Air, Furnace and Boilers)	11,706	3,057,619	383,382	2,121	41,825,221	7,619,978	42,429	50,180	932,730	3,848	67,141	\$ 1,052,154	\$ 17,269,999
Geothermal Heat Pumps	36	56,916	_	_	1,024,488	_	_	194	3,497	28	506	\$ 10,944	\$ 196,998
Ductless Heat Pump	2,938	2,916,271	_	_	52,492,867	_	_	9,953	179,158	1,439	25,908	\$ 560,766	\$ 10,093,790
Enervee Appliances (formerly TopTen)	340	402,151	53	25	1,123,806	584	280	1,382	3,935	199	562	\$ 77,490	\$ 217,869

## Community and Education Energy Solutions

#### **eesmarts**™

In 2014, the innovative *eesmarts* program conducted 28 regional professional development workshops for 471 educators regarding the basics of energy efficiency, renewable energy, climate change and how electricity works. The program's comprehensive K–12 energy education lessons, activities and materials align with the state's science and math frameworks and the Next Generation Science Standards. The program partnered with Project Learning Tree to hold PLT GreenSchools! Investigations professional development workshops throughout the state. More than 5,500 curriculum materials were distributed in 2014 to over 100 schools and educational institutions.

The *eesmarts* Energy-Saving Challenge entered its second year with over 600 students participating in the challenge. Through extensive outreach to schools and museums, eeEvents reached over 15,000 students, parents and educators. The *eesmarts* program sponsored the 2014 Connecticut Science and Engineering Fair's Sustainable Resource and Practices (middle school), Future Sustainability (high school) and Alternative/Renewable Energy (middle/high school) categories. The winners of these categories went on to perform well in international competitions with their projects.





Dr. Nivea Torres, Superintendent Connecticut Technical High Schools, students and stakeholders cut the ribbon at Bullard Havens Technical School to open the newly completed E-House in October 2014.

#### **TECHNICAL SCHOOL E-HOUSE INITIATIVE**

In 2014, the Connecticut Technical High School System, in partnership with the Energy Efficiency Fund and the Connecticut Green Bank, opened the state's sixth and seventh E-Houses at Bullard Havens Technical High School in Bridgeport and Henry Abbott Technical High School in Danbury. The nation's first high school laboratories for learning "green" construction, the E-House initiative provides an energy efficiency and clean energy curriculum for the schools' architectural, carpentry, electrical, HVAC and plumbing faculty and students. Designed to move educators and students beyond the textbook to hands-on training, this workforce development initiative was highlighted in the 2012 American Council for an Energy-Efficient Economy Summer Study in Pacific Grove, California and has been emulated by other technical high school systems from across the United States. Designed and built by students and faculty, each E-House incorporates solar photovoltaic and solar thermal systems, weatherization and energy efficiency labs in the design of the project.

#### **10TH ANNUAL STUDENT CONTEST**

More than 900 schoolchildren in grades K–12 submitted entries in the **eesmarts** annual Student Contest. The contest's 39 finalists represented 15 cities and towns across the state. Entries took the form of posters, narratives, news articles, book reviews, essays, speeches, public service announcements and community project plans on topics including climate change, energy efficiency, renewable energy sources and recycling. The Power of Change category was created for the high school level in collaboration with Connecticut-based foundations Emily Hall Tremain Foundation, Hampshire Foundation, and the Common Sense Fund. Winners of the Power of Change category received awards to implement their community service learning projects. More than 100 students, parents and supporters attended the June awards ceremony. Representatives from DEEP, state senators and state representatives, along with Eversource and UI personnel were in attendance to celebrate the students' hard work. NBC Connecticut's meteorologist Bob Maxon served as the Master of Ceremonies.



2014 **eesmarts** student contest winners and dignitaries.

## Community and Education Energy Solutions

#### MUSEUM PARTNERSHIPS

In 2014, the Energy Efficiency Fund continued its support of several interactive exhibits relating to energy, energy efficiency and renewable energy sources throughout the state. A highlight of the year was a major redesign of the Energy City Gallery at the Connecticut Science Center.



Wind turbines, solar panels, hydropower and fuel cells are just a few of the alternative energy technologies visitors to the Connecticut Science Center will discover in the newlyupdated Energy City gallery.

#### **EXHIBITS ARE LOCATED AT:**

**Connecticut Science Center** (Hartford) – Energy City Gallery

The Discovery Museum (Bridgeport) – Energy Exhibit

**The SmartLiving™ Center** (Relocating to North Haven in 2015) – A professionally staffed facility that serves as a high-profile resource for promoting energy-efficient products, services and ideas

**Stepping Stones Museum for Children** (Norwalk) – Energy Lab! Gallery, traveling Mini-Conservation Quest<sup>SM</sup> Exhibit

**The Trash Museum** (Hartford) – The Energy-Recycling Connection Exhibit

#### **SEMINARS AND EVENTS**

Energy Efficiency Fund events reach every type of energy consumer.

#### **SAMPLE ACTIVITIES IN 2014 INCLUDE:**

Commercial and industrial outreach including Chambers of Commerce events, contractor meetings, Connecticut Farm Energy workshops

Trade ally training seminars on topics including energy code, demand response, sustainability, lighting, high-performance homes, energy efficiency sales, Portfolio Manager, building and HVAC contractor training

Industry conference participation including Affordable Comfort
Institute National Home Performance Conference, CBIA
Environmental & Energy Conference, AESP Energy Efficiency
Conference, CTSSA Energy Summit, Association of Energy Engineers
events, Northeast Energy Efficiency Partnerships Summit, and
What's the Deal? Energy Summit

Residential, community and educational outreach including Clean Energy Communities events, Council of Small Towns (COST) forum, Latinas & Power Symposium, CT Housing Coalition Conference, Connecticut Conference of Municipalities annual conference, home shows, senior fairs, library events, social agency forums, school fairs, Earth Day events, *@esmarts* events and forums, Connecticut Science Fair, Technical High School E-House openings, and museum events



DEEP Commissioner Klee leads by example – shown here discussing the results of the blower door test performed at his home in 2014.

#### **HOME ENERGY REPORTS**

In 2014, approximately 350,000 Eversource customers in Connecticut received customized reports detailing their home's energy use compared to "neighbors" with similar-sized homes within a two-mile radius. All participants had access to interactive energy information through an online portal, and approximately 230,000 of the high-usage customers received paper reports in the mail as well. Both the printed reports and portal include energy-saving tips and positive reinforcement encouraging customers to engage in energy conservation behaviors and to take advantage of the energy-saving services and rebates available in Connecticut. As a result of the 2014 reports, the 350,000 Eversource customers saved more than 28.9 megawatt-hours, annually.

#### **CLEAN ENERGY COMMUNITIES**

The Clean Energy Communities program empowers community leaders, households, and local businesses with the tools and resources they need to work together to set clean energy goals. The administrators of both the Energy Efficiency Fund and the Connecticut Green Bank work with participating cities and towns to reduce their municipal building energy consumption, to increase their use of renewable sources, and to enable residents and local businesses to participate in various smart energy programs and services.

## CLEAN ENERGY COMMUNITIES 2014 STATISTICAL HIGHLIGHTS

**120** cities and towns are now Clean Energy Communities

56 municipalities participated in the Municipal Technical Assistance Benchmarking program

**\$120,000** in Bright Idea Grants awarded to 63 communities

6,493 homes participated in Home Energy Solutions (including income eligible households) as a result of Clean Energy Communities HES outreach campaigns conducted in 36 cities and towns

More than **200 outreach events** held throughout Connecticut



#### 2014 Bright Idea Grants

Through an innovative point system that rewards a variety of energy efficiency achievements, communities can earn "Bright Idea Grants". In March, participating communities were joined by DEEP Commissioner Klee, legislators, utility administrators and municipal officials in a ceremony held at the state capitol in recognition of reaching their first milestones in becoming more sustainable communities.

#### COMMUNITY SPOTLIGHT:

#### **Thomaston**

In November, the Thomaston Board of Selectmen held a light bulb exchange paid for with a Bright Idea Grant. More than 400 households showed up to town hall to exchange old energy-intensive incandescent light bulbs for new energy-saving LED bulbs. 2,500 LEDs were exchanged at no charge to residents, saving homes an average of \$50 in energy costs every year.

#### **COMMUNITY SPOTLIGHT:**

#### North Haven

The Town of North Haven replaced their manual thermostats for heating and dual heating/cooling control with programmable thermostats in all of their municipal buildings.

#### COMMUNITY SPOTLIGHT:

#### **New Haven**

Mayor Harp established The Youth Conservation Initiative (YCI) in partnership with Energize Connecticut. The youths canvassed New Haven neighborhoods in an effort to educate residents and business owners on the importance of energy reduction through lighting upgrades. The canvassing efforts were conducted from June through September and will continue in 2015.

Municipalities that signed or resigned the Clean Energy Communities pledge in 2014 are highlighted in green on pages 16-18.

## Community and Education Energy Solutions

#### **CLEAN ENERGY COMMUNITIES**

## More Bright Ideas from Clean Energy Communities:

- Professional-grade audits for municipal buildings performed in Middletown, Mansfield, Coventry, Enfield and Barkhamsted.
- Energy outreach and events -- Southbury hosted a town-wide energy fair and Westport used its grant to promote Home Energy Solutions and insulation upgrades.
- Municipal heating and cooling upgrades completed in Weston, Watertown, Wolcott and Brookfield.
- Municipal LED lighting retrofits completed in Newtown, West Hartford, Plainville and West Haven.
- Electric vehicle charging station available for the public in Madison.

#### Regional Taskforce Workshop: An Evening of Energy Efficiency

In October the Clean Energy Communities team hosted a regional task force workshop in Windsor. The workshop included presentations on smart energy resources for municipalities, residents, businesses and educators. The event was kicked off by highlighting Bloomfield's progress with the Home Energy Solutions program. Thanks to the coordinated efforts of the town's officials and their Conservation, Energy and Environment Commission, Bloomfield has achieved 25 percent participation. One out of every four homes in Bloomfield is running more efficiently year-round, saving money on utility bills, and enjoying a safer, healthier and more comfortable living environment.



DEEP Commissioner Klee captures the excitement of the Bright Idea Grant ceremony.



Representatives from South Windsor and Eversource meet to kick off Energize South Windsor



Derby residents participate in the Great Bulb Exchange to educate consumers about LED technology

## **Business Energy Solutions**

#### SMALL BUSINESS ENERGY ADVANTAGE

The small business program continues to provide comprehensive energy-saving projects to small businesses throughout Connecticut. In 2014, efforts were augmented to bring broader and deeper solutions to small businesses with the application of kitchen exhaust hood controls and energy management systems. These two applications are in addition to standard measures which include lighting, refrigeration, motor controls and natural gas efficiency.





"As a small business, we don't necessarily have the financial or technical resources in-house to introduce advanced energy efficiency improvements into our facility. The funds and assistance from Energize Connecticut allowed us to proactively undertake some significant upgrades, and the resulting financial savings absolutely keep us viable in today's competitive market." Bill Giannetto, Mica Corp.

#### SILVER STAR DINER

### COMPREHENSIVE MEASURES INCLUDE

Energy-efficient lighting throughout

Refrigerator fan motors and controls

Exhaust hood control system

#### **ESTIMATED ANNUAL SAVINGS**

Energy Efficiency Fund incentive: **\$50,581** 

88,344 kWh saved annually

\$17,000 saved annually

### MICA CORPORATION

### COMPREHENSIVE MEASURES INCLUDE

Interior and exterior LED lighting upgrade

Variable frequency drive controls for air handler motor

**HVAC** controls

#### **ESTIMATED ANNUAL SAVINGS**

Energy Efficiency Fund incentive: **\$25,364** 

35,686 kWh saved annually

\$6,400 saved annually

"At the end of the day, it was absolutely the right choice to invest in energy efficient improvements that make the restaurant more comfortable for our employees and guests. With the steps we've taken to improve operations, we can now ensure that the Silver Star Diner remains a fixture in Norwalk for many generations to come."

Alex Savvidis, Silver Star Diner

#### 2014 SMALL BUSINESS ENERGY ADVANTAGE PROGRAM



Businesses Served



CO<sub>2</sub> Emissions Reduced 20,235 Tons (Annual)



Annual Savings \$6.5 Million



Lifetime Savings \$79.2 Million



**MMBTUs** 

Annual 146.6 Thousand Lifetime



**Energy Savings** 

kWh Annual 39.7 Million kWh Lifetime 485.5 Million (kWh = Electricity, CCF = Natural Gas)
CCF Annual
109.6 Thousand

109.6 Thousand CCF Lifetime 1.3 Million

## **Business Energy Solutions**

#### **NEW CONSTRUCTION / EQUIPMENT**

In 2014, the Energy Efficiency Fund continued to support commercial and industrial customers initiating new construction or new electric or natural gas equipment purchases through an incentive structure that offsets the incremental cost between baseline equipment and standards and high efficiency options.

### JACKSON LABORATORY FOR GENOMIC MEDICINE

### COMPREHENSIVE MEASURES INCLUDE

Building envelope, pipe and duct insulation

Interior and exterior lighting and lighting controls

Demand control ventilation and Aircuity monitoring systems

Condensing boilers

Air handling and control systems

Customized water-cooled equipment

#### **ESTIMATED ANNUAL SAVINGS**

Energy Efficiency Fund incentive: **\$1.2 million** 

4,000,000 kWh saved annually

**80,000 ccf** saved annually

**\$620,000** saved annually



This prescriptive approach is effective for many types of facilities, but for certain complex buildings with aggressive performance targets, a "whole building performance" option is also available.

In 2014, Eversource and UIL Holdings Corporation's new construction projects were completed in many sectors with retail (chain stores), government facilities and public schools as active participants. Manufacturers were the leaders for process efficiency improvements, with compressors and cycling air dryers as common measures.

"The incentives allowed us to incorporate energy-saving equipment and strategies that otherwise would not have been financially possible and will deliver us a favorable economic return for years to come. Money that can now be reinvested back into our operations in the form of new scientific equipment and personnel with the promise to transform medicine by improving care, lowering costs, and increasing life span and health span."

John Fitzpatrick, Jackson Laboratory for Genomic Medicine



"We want sustainable options because we recognize the critical role higher education institutions have as environmental stewards."

> Keith Woodward, AVP-Facilities Operations, Quinnipiac University.

#### **QUINNIPIAC UNIVERSITY**

### COMPREHENSIVE MEASURES INCLUDE

Interior lighting (LEDs and CFLs)

HVAC VFDs, fans and pumps

Supplemental 10-ton chiller

Condensing boilers

Air handling and control systems

Customized water cooling equipment

#### **ESTIMATED ANNUAL SAVINGS**

Energy Efficiency Fund incentive: **\$87,040** 

342,789 kWh saved annually

**\$61,702** saved annually

#### 2014 NEW CONSTRUCTION & EQUIPMENT



Businesses Served 1,205



CO<sub>2</sub> Emissions Reduced 34,762 Tons (Annual)



Annual Savings \$10.0 Million



Lifetime Savings \$154.6 Million



**MMBTUs** 

Annual Lifetime 300.4 Thousand 4.6 Million



**Energy Savings** 

kWh Annual 58.5 Million kWh Lifetime 901.2 Million (kWh = Electricity, CCF = Natural Gas)

CCF Annual 980.1 Thousand CCF Lifetime 15.2 Million

#### **BUSINESS AND ENERGY SUSTAINABILITY**

Programs: Energy Opportunities

Operations & Maintenance Services

Retro Commissioning

Process Reengineering for Increased Manufacturing Efficiency (PRIME)

Business Sustainability Challenge

In 2014, utility administrators and the EEB's commercial and industrial working group continued to address energy use in the context of the total lifecycle of a building and the behaviors of the owners and occupants within them.

Beginning in April, 2014, Eversource and UIL Holdings Corporation's commercial and industrial customers (or their contractors) began purchasing eligible linear fluorescent and LED replacement lamps at a reduced cost from participating distributors without the need for a rebate form. This "upstream" approach leverages manufacturers' and distributors' sales and marketing resources and is an important step towards broader adoption of the technology in this sector.





#### **SCHICK**

#### **MEASURES INCLUDE**

Provide training in LEAN manufacturing techniques to reduce waste, improve production efficiency and reduce energy consumption through the PRIME program

Developed a multi-disciplined team of engineers and technicians to identify energy waste and energy efficiency opportunities

Complete audit conducted on the 425,000-square-foot-facility

60 opportunities to decrease overall energy usage and operating costs identified, including HVAC, chilled water and steam system upgrades, and lighting overhaul.

Lean manufacturing process tools reinforced with team participants

"With our efficiency goals evolving, we knew we needed a more company-wide, collaborative approach. We were looking for a cross-functional team to serve as an internal energy advocacy group to help keep our long term conservation projects on track." Jeff Wilson, Schick plant services manager

#### 2014 BUSINESS AND ENERGY SUSTAINABILITY



Businesses Served



CO<sub>2</sub> Emissions Reduced 70,937 Tons (Annual)



Annual Savings \$20.7 Million



Lifetime Savings \$227.0 Million



MMBTUs

Annual Lifetime 600.7 Thousand 6.4 Million



Energy Savings

kWh Annual 121.7 Million kWh Lifetime 1.3 Billion (kWh = Electricity, CCF = Natural Gas)

CCF Annual 1.8 Million CCF Lifetime 17.8 Million

## **Business Energy Solutions**

#### **BUSINESS AND ENERGY SUSTAINABILITY**



"When we evaluated our energy use and benchmarked equipment, we noticed a major issue – we were using a tremendous amount of energy while production was quiet. We implemented an energy management system and new technology that has directly impacted our bottom line, allowing us to save money, add jobs and remain an industry leader amongst our competitors across the globe."

Damon Esposito, Vice President of Operations, Theis Precision Steel

"The projects make us competitive in a world where we are paying good wages while competing against countries that not only do not pay well, but are being subsidized by their government. Reducing our energy not only preserves jobs in Connecticut, but is allowing us to grow." Carl Holte, Web Industries





"By taking advantage of Energize Connecticut programs, we were able to identify key inefficiencies across our business and implement necessary improvements. Now, we're operating with enhanced production efficiency, improved product throughput and reduced waste."

Ken Lisk, PEP Lacey

#### THEIS PRECISION STEEL

#### **MEASURES INCLUDE**

Installation of wireless electric submetering system and virtual dashboard

Multiple process improvements resulting from the submetering study

Energy-efficient compressor and steam trap upgrades

Provide training in LEAN manufacturing techniques to reduce waste, improve production efficiency and reduce energy consumption through the PRIME program

#### **ESTIMATED ANNUAL SAVINGS**

Energy Efficiency Fund incentive: **\$51,435** 

365,000 kWh saved annually

\$41,400 saved annually

#### WEB INDUSTRIES

#### 2011-2014 MEASURES INCLUDE

Process improvement: Increased throughput but at reduced energy per foot

Process improvement: Reduced changeover time resulting in less idle energy consumption

Process equipment: Energy-efficient winders

LED lighting

#### **ESTIMATED ANNUAL SAVINGS**

Energy Efficiency Fund incentive: **\$526,499** 

1,550,703 kWh saved annually

**\$204,693** saved annually

#### PEP LACEY

#### **MEASURES INCLUDE**

Provide training in LEAN manufacturing techniques to reduce waste, improve production efficiency and reduce energy consumption through the PRIME program

Energy-efficient lighting upgrade

Process equipment upgrade: Replacement of hydraulic plastic injection molding machines with energyefficient electric servo-driven injection molding machines

#### **ESTIMATED ANNUAL SAVINGS**

Energy Efficiency Fund incentive: **\$63.980** 

400,081 kWh saved annually

**\$72,000** saved annually

#### PROTECTING CONNECTICUT'S TREASURED ENVIRONMENT

Improving air quality in the Northeast continues to be an important focus of the Connecticut Energy Efficiency Fund.









Reducing the amount of energy used in Connecticut results in less power plant operation time and significantly reduces the emission of carbon dioxide, oxides of nitrogen, and sulfur oxides – which are all associated with environmental issues like ozone depletion, climate change, public health problems, acid rain and smog.

By playing an integral role in helping to reduce greenhouse gas and air pollutant emissions, the Energy Efficiency Fund's programs play a vital role in the overall economic and environmental health of Connecticut. The lifetime energy savings achieved through Energy Efficiency Fund programs in 2014 resulted in

AVOIDED EMISSIONS OF

3,202,328

TONS OF CARBON DIOXIDE, EQUIVALENT TO REMOVING

466,259

CARS OFF THE ROAD FOR A YEAR.

#### REFLECTING REDUCTION IN CRITERIA POLLUTANTS AND CARBON DIOXIDE (IN TONS)

AIR EMISSIONS	ESTIMA	TED ANNUAL SAVIN	GS 2014	ESTIMATED LIFETIME SAVINGS 2014				
AIR EMISSIONS	Electric	Natural Gas	Fuel Oil & Propane	Electric	Natural Gas	Fuel Oil & Propane		
SO <sub>x</sub> Tons	23	23 —		247	3	2,752		
NO <sub>x</sub> Tons	34	30	18	359	484	373		
CO <sub>2</sub> Tons	191,414	38,159	25,572	2,053,013	620,985	528,330		

#### DEMONSTRATING ECONOMIC BENEFITS THROUGHOUT CONNECTICUT

This list includes energy efficiency and conservation benefits provided to residential, commercial and industrial customers of the electric and gas utilities, the Connecticut Municipal Electric Energy Cooperative (CMEEC), and The Wallingford Electric Division.

							Annual	Lifetime			Annual
Town	Energy Incentives	Annual kWh Savings	Lifetime kWh Savings	Peak Demand kW	Annual CCF Savings	Lifetime CCF Savings	Gallons (Oil & Propane)	Gallons (Oil & Propane)	Annual Dollars Saved	Lifetime Dollars Saved	CO <sub>2</sub> (Tons) Saved
Andover	\$ 46,651	69,484	1,122,240	16	223	4,450	2,220	44,157 \$	20,733 \$		65
Ansonia	\$ 929,431	927,946	11,332,083	117	32,255	652,388	10,858	235,482 \$	232,210 \$	,	791
Ashford	\$ 124,307	211,738	3,113,704	13	0	0	3,025	57,822 \$	48,328 \$		142
Avon	\$ 651,042	1,145,416	12,128,851	157	20,108	346,711	12,997	262,046 \$	267,041 \$		844
Barkhamsted	\$ 25,369	33,981	401,429	4	0	0	1,499	30,322 \$	11,613 \$		34
Beacon Falls	\$ 114,760	213,628	2,728,448	22	454	8,321	4,976	100,383 \$	56,493 \$		168
Berlin	\$ 2,662,501		133,670,099	2,561	18,785	373,443	8,678	176,386 \$			7,511
Bethany	\$ 125,327	143,806	1,888,900	26	0	0	8,908	181,458 \$	58,896 \$		183
Bethel	\$ 433,977	1,012,440	12,514,128	147	8,385	102,931	7,551	162,324 \$	212,466 \$	2,870,654	647
Bethlehem	\$ 80,304	185,082	1,855,475	25	75	1,509	2,481	48,607 \$	41,693 \$	505,353	121
Bloomfield	\$ 2,295,496	5,016,325	57,435,314	575	68,357	1,334,991	19,159	377,198 \$	1,007,816 \$	12,630,833	3,133
Bolton	\$ 103,360	141,455	1,822,872	19	0	0	4,430	89,574 \$	41,449 \$	654,091	120
Bozrah	\$ 142,000	364,501	3,400,411	64	0	0	0	0 \$	63,387 \$	584,531	180
Branford	\$ 795,508	1,652,571	18,933,849	263	62,276	1,252,245	6,189	123,895 \$	367,951 \$	4,966,873	1,267
Bridgeport	\$ 7,265,403	8,757,443	99,835,105	867	292,865	5,812,833	60,422	1,337,858 \$	2,020,948 \$	28,010,803	6,874
Bridgewater	\$ 31,580	49,348	629,779	5	0	0	1,144	24,512 \$	12,935 \$	201,501	38
Bristol	\$ 2,966,136	6,913,990	83,719,412	795	120,208	1,912,525	23,381	485,540 \$	1,401,364 \$	18,133,483	4,433
Brookfield	\$ 1,384,688	7,552,995	86,373,075	783	15,590	304,282	13,361	271,013 \$	1,378,568 \$	16,179,980	3,988
Brooklyn	\$ 201,234	478,821	5,982,621	73	615	11,778	3,173	63,166 \$	95,899 \$	1,280,367	274
Burlington	\$ 146,376	213,363	2,905,741	31	463	9,263	8,366	161,770 \$	69,352 \$	1,124,047	192
Canaan	\$ 108,828	331,899	4,744,323	35	0	0	756	15,441 \$	60,595 \$	874,287	173
Canterbury	\$ 60,430	51,032	881,383	7	0	0	2,512	52,590 \$	18,430 \$	351,562	57
Canton	\$ 453,191	1,537,444	12,992,745	161	3,056	61,425	9,020	185,975 \$	304,474 \$	3,001,767	878
Chaplin	\$ 46,372	43,788	477,799	5	0	0	3,278	67,615 \$	20,083 \$	339,341	57
Cheshire	\$ 1,780,523	2,382,663	31,115,325	416	198,009	2,599,759	27,091	553,964 \$	698,721 \$	10,032,105	2,695
Chester	\$ 52,773	99,628	821,583	5	112	2,233	3,075	62,214 \$	29,126 \$		87
Clinton	\$ 321,171	810,886	9,924,166	71	2,607	48,879	12,161	253,219 \$	189,662 \$		568
Colchester	\$ 290,519	525,799	7,037,212	70	108	2,160	6,625	131,785 \$	116,738 \$		337
Colebrook	\$ 9,732	4,973	51,656	2	0	0	764	17,164 \$	3,770 \$		11
Columbia	\$ 94,827	95,861	1,099,908	9	0	0	6,005	116,300 \$	39,512 \$		120
Cornwall	\$ 37,636	45,863	531,890	6	0	0	3,559	80,270 \$	21,513 \$		57
Coventry	\$ 150,949	146,205	1,787,390	17	0	0	8,764	172,991 \$	58,762 \$		183
Cromwell	\$ 1,732,464	2,991,528	40,778,297	537	16,380	293,581	5,330	107,888 \$	555,503 \$		1,640
Danbury	\$ 6,744,225	10,418,549		1,238	359,450	4,185,657	129,346		2,632,978 \$		8,982
Darien	\$ 543,422 \$ 109,177	881,581	12,197,843	145 14	11,550 0	195,024	19,838	415,327 \$	239,346 \$		753 152
Deep River Derby	\$ 109,177 \$ 866,166	195,740 3,493,319	1,851,035 34,798,555	355	11,775	169,696	4,615 7,141	88,858 \$ 156,761 \$	51,594 \$ 645.434 \$	,	1,888
Durham	\$ 148,316	289,675	3,935,801	47	0	0	6,770	133,785 \$	,	1,185,483	223
East Granby	\$ 251,720	801,806	10,179,699	58	186	3,373	3,413	70,017 \$	152,586 \$		438
East Haddam	\$ 130,825	192,056	2,613,603	23	0	0	4,632	88,685 \$			154
East Hampton	\$ 136,023	166,206	1,963,848	20	0	0	6,607	131,769 \$			161
East Hartford	\$ 2,388,441	3,293,103	39,503,389	338	96,587	1,934,723	52,189	1,097,163 \$		12,881,357	2,878
East Haven	\$ 907,236	2,314,891	21,762,599	209	24,688	462,827	11,534	249,072 \$	469,042 \$		1,436
East Lyme	\$ 794,693	1,080,885	14,036,636	198	30,707	658,442	15,629	314,401 \$	275,539 \$		886
East Windsor	\$ 448,436	1,322,520	13,018,119	111	23,872	470,322	6,212	126,479 \$	275,476 \$		865
Eastford	\$ 28,886	48,172	705,539	8	0	0	1,039	20,580 \$	12,330 \$		35
Easton	\$ 193,305	95,684	1,233,789	27	13,945	271,437	7,418	153,746 \$		1,065,906	221
Ellington	\$ 583,551	920,957	11,108,014	159	26,621	584,047	10,849	209,093 \$		3,283,591	744
Enfield	\$ 2,051,335	8,543,843	95,224,166	1,123	24,571	418,485	26,903	512,127 \$	1,610,612 \$		4,713
Essex	\$ 307,175	661,005	7,847,234	101	16,620	272,708	5,906	117,922 \$		2,067,740	495
Fairfield	\$ 2,376,300	5,764,501	62,367,784	600	140,054	2,713,006	22,875	482,091 \$	1,217,714 \$		3,986
Farmington	\$ 2,563,684	6,090,270	81,048,117	1,031	127,197	2,185,590	17,576	353,965 \$			3,990
Franklin	\$ 30,814	45,780	552,915	5	0	0	1,345	26,292 \$	13,077 \$		39

The towns indicated in green are Clean Energy Communities. Home Energy Reports behavior benefits not included in this listing.

CONTINUED ON NEXT PAGE

Town	Energy Incentives	Annual kWh Savings	Lifetime kWh Savings	Peak Demand kW	Annual CCF Savings	Lifetime CCF Savings	Annual Gallons (Oil & Propane)	Lifetime Gallons (Oil & Propane)	Annual Dollars Saved	Lifetime Dollars Saved	Annual CO <sub>2</sub> (Tons) Saved
Glastonbury	\$ 1,207,138	3,222,153	34,319,199	418	37,274	658,183	18,355	375,513 \$	664,286 \$	7,980,115	2,028
Goshen	\$	98,006	1,335,575	19	0	0	4,522	90,040 \$	34,244 \$	572,099	103
Granby	\$	219,486	2,431,331	31	4,480	59,300	8,292	161,750 \$	73,812 \$		233
Greenwich	\$ 1,401,670	2,552,220	32,674,431	281	78,592	1,379,414	9,980	201,984 \$	553,763 \$	7,751,945	1,849
Griswold	\$ 131,365	97,446	1,123,645	9	0	0	1,966	38,384 \$	24,424 \$	339,167	73
Groton	\$ 1,453,336	2,002,655	20,131,774	273	50,677	1,057,461	3,214	70,159 \$	406,893 \$	4,775,374	1,336
Guilford	\$ 600,589	1,229,897	13,906,575	205	10,469	193,533	15,872	317,683 \$	283,842 \$	3,790,779	864
Haddam	\$ 125,999	154,807	1,837,262	20	0	0	7,004	133,202 \$	53,563 \$	822,526	162
Hamden	\$ 2,625,160	4,251,825	43,756,596	519	97,483	1,802,881	38,607	848,292 \$	975,520 \$	12,535,136	3,170
Hampton	\$ 47,804	51,228	710,644	6	0	0	2,264	43,515 \$	17,519 \$	287,689	55
Hartford	\$ 8,061,731	14,916,379	177,365,152	2,527	556,284	7,668,520	20,446	401,879 \$	3,181,140 \$	39,616,553	10,982
Hartland	\$ 19,276	21,478	277,255	3	47	824	1,311	25,104 \$	8,766 \$	143,973	28
Harwinton	\$ 64,118	93,317	1,098,527	14	0	0	3,565	71,192 \$	29,790 \$	459,653	88
Hebron	\$ 257,600	460,939	5,704,649	55	798	17,156	9,469	188,166 \$	116,910 \$	1,713,411	349
Kent	\$ 50,539	95,988	1,218,623	13	0	0	1,830	36,791 \$	23,652 \$	349,433	71
Killingly	1,042,798	2,125,947	25,310,876	91	42,001	355,350	9,826	194,483 \$	445,542 \$	5,442,867	1,427
Killingworth	\$ 144,024	188,183	2,377,512	23	0	0	7,720	147,201 \$	62,091 \$	968,646	182
Lebanon	\$ 186,053	370,355	4,643,909	63	0	0	4,246	83,001 \$	80,557 \$	1,114,023	238
Ledyard	\$ 236,922	812,933	8,228,134	61	474	9,482	7,168	146,277 \$	169,069 \$	1,980,249	496
Lisbon	\$ 226,183	1,283,098	10,728,207	120	0	0	2,841	58,078 \$	233,939 \$	2,065,108	669
Litchfield	\$ 164,256	248,198	3,033,257	32 9	810	16,199	6,584	136,892 \$	68,948 \$	1,058,207	201 39
Lyme Madison	\$	54,489 509,559	790,264 6,581,972	71	8,302	162,121	1,001 16,699	18,770 \$ 320,969 \$	13,283 \$ 159,739 \$	207,249 2,513,051	506
Manchester	3,036,264	8,318,592	88,666,160	1,049	119,990	2,147,922	23,506		1,645,899 \$		5,115
Mansfield	\$ 758,201	2,414,331	25,992,297	332	41,966	495,866	8,921	182,812 \$		5,654,846	1,547
Marlborough	\$	110,180	1,341,919	14	11,700	0	4,105	79,936 \$	34,776 \$	534,751	103
Meriden	2,547,222	4,610,295	54,242,879	621	106,450	1,788,771	20,373	419,887 \$		12,694,095	3,181
Middlebury	\$	608,959	7,730,633	69	492	10,376	9,315	202,313 \$	141,783 \$	2,108,774	410
Middlefield	\$ •	119,658	1,625,416	10	0	0	2,871	54,004 \$	31,728 \$	484,842	93
Middletown	\$ 4,583,989	9,298,128	99,155,508	985	142,004	2,533,866	63,474	1,231,255 \$	1,988,438 \$	24,239,332	6,265
Milford	\$ 2,276,842	7,705,352	86,386,515	659	199,411	3,980,366	16,439	351,421 \$	1,585,103 \$	20,130,793	5,213
Monroe	\$ 297,584	394,432	4,402,938	66	10,192	199,574	10,905	223,801 \$	119,407 \$	1,805,961	388
Montville	\$ 541,886	2,708,390	29,474,191	236	3,679	63,212	6,383	127,975 \$	498,640 \$	5,616,066	1,437
Morris	\$ 20,574	40,928	572,736	4	0	0	1,063	19,842 \$	11,163 \$	173,932	31
Naugatuck	\$ 1,163,678	2,567,399	36,613,500	317	30,854	578,115	14,601	291,786 \$	530,268 \$	7,976,668	1,641
New Britain	\$ 3,317,554	7,084,616	75,870,136	824	218,851	3,971,976	13,773	289,164 \$	1,484,816 \$	18,077,886	4,996
New Canaan	\$	495,663	5,531,521	98	977	19,542	23,684	497,895 \$		2,864,225	544
New Fairfield	\$	309,621	4,611,912	59	0	0	7,391	145,568 \$	81,959 \$	1,346,530	246
New Hartford	\$	1,439,606	13,568,879	140	601	12,018	3,598	69,893 \$	264,584 \$	2,610,272	758
New Haven	8,844,862		150,879,438	899	500,688	6,341,515	28,996	636,734 \$			9,193
New London	\$	1,141,766	12,746,285	116	39,462	719,124	2,682	53,064 \$	244,893 \$ 541,734 \$	3,105,523	836
New Milford Newington	\$ 917,572 1,484,830	2,795,550 3,079,528	29,087,424 34,899,815	301 448	10,281 138,561	230,157 2,558,808	12,138 9,204	242,696 \$ 180,179 \$	697,427 \$	6,151,405 9,220,201	1,586 2,473
Newtown	\$	1,195,861	15,222,519	205	4,645	91,744	18,855	385,589 \$	283,940 \$	4,174,441	856
Norfolk	\$	67,000	935,063	11	92	1,810	1,483	27,853 \$	17,375 \$	268,482	51
North Branford	\$	192,146	2,214,348	24	4,674	76,765	5,543	113,588 \$	58,781 \$	888,803	191
North Canaan	\$	33,044	381,436	3	0	0	1,196	27,448 \$	10,295 \$	169,983	31
North Haven	2,588,834	6,980,581	93,214,329	730	57,093	759,762	28,580	585,427 \$	1,374,923 \$		4,155
North Stonington	88,299	162,393	2,161,290	6	147	2,931	2,365	48,711 \$	37,371 \$	559,727	111
Norwalk	4,600,403		174,782,253	1,659	160,541	2,556,725	67,070		3,140,200 \$		9,590
Norwich	\$ 1,010,934	2,177,018	24,510,076	271	295	5,907	0	0 \$	378,854 \$	4,219,135	1,076
Old Lyme	\$	236,974	3,638,793	25	134	2,689	4,988	97,647 \$	60,307 \$	999,623	173
Old Saybrook	\$ 1,110,929	2,568,953	31,059,039	373	36,546	414,220	9,203	189,605 \$	515,214 \$	6,470,757	1,596
Orange	\$	3,234,718	33,280,070	380	45,196	957,451	17,108	365,746 \$		8,060,882	2,087
Oxford	\$	625,937	8,208,730	108	1,119	23,323	9,779	201,390 \$	147,073 \$		426
Plainfield	\$ 364,221	797,666	11,022,738	158	4,114	58,828	6,579	131,196 \$	167,508 \$		500
Plainville	\$ 553,013	1,240,544	15,477,510	162	28,350	402,866	6,412	129,641 \$	266,081 \$		862
Plymouth	\$ 238,295	530,320	6,049,701	67	3,112	49,236	4,228	89,684 \$	111,155 \$	1,429,888	328

The towns indicated in **green** are Clean Energy Communities. Home Energy Reports behavior benefits not included in this listing.

CONTINUED ON NEXT PAGE

	Energy	Annual kWh	Lifetime kWh	Peak Demand	Annual CCF	Lifetime CCF	Annual Gallons (Oil &	Lifetime Gallons (Oil &	Annual Dollars	Lifetime Dollars	Annual CO <sub>2</sub> (Tons)
Town	Incentives	Savings	Savings	kW	Savings	Savings	Propane)	Propane)	Saved	Saved	Saved
Pomfret	\$ 139,811	102,224	1,252,886	18	0	0	5,882	124,999 \$	40,150 \$	690,867	119
Portland	\$ 234,822	308,109	3,755,717	39	5,647	97,056	9,847	201,028 \$	96,210 \$	1,506,492	310
Preston	\$ 63,310	122,984	1,833,489	8	0	0	1,123	23,699 \$	25,658 \$	405,329	75
Prospect	\$ 152,772	218,099	2,711,392	32	193	3,855	4,892	99,100 \$	56,714 \$	846,886	171
Putnam	\$ 482,172	1,001,629	10,971,191	118	1,668	31,569	9,250	180,540 \$		2,604,004	623
Redding	\$ 135,034	156,732	1,820,827	27	112	2,233	7,650	153,655 \$	56,458 \$	899,717	171
Ridgefield	\$ 740,166	1,004,752	12,324,789	198	11,948	183,478	27,082	581,395 \$	288,688 \$	4,512,066	899
Rocky Hill	\$ 723,340	1,273,959	13,564,363	160	50,456	902,797	4,676	94,981 \$	285,534 \$	3,587,602	994
Roxbury	\$ 38,553	38,353	397,856	6	126	2,523	2,274	43,082 \$	15,437 \$	234,776	47
Salem	\$ 57,509	85,163	1,186,538	8	0	0	2,568	50,061 \$	24,579 \$	394,397	73
Salisbury	\$ 859,423	1,652,915	20,591,679	336	0	0	2,358	48,430 \$	296,412 \$	3,723,938	838
Scotland	\$ 9,038	5,488	60,662	1	0	0	560	10,645 \$	3,084 \$	50,921	10
Seymour	1,452,811	1,625,231	19,681,368	215	13,292	185,742	31,519	657,855 \$	414,697 \$	6,069,761	1,268
Sharon	\$ 111,363	131,814	1,852,290	21	0	0	2,929	61,561 \$	34,063 \$	552,588	101
Shelton	1,666,521	2,578,162	29,762,308	358	125,855	1,790,484	27,387	581,756 \$	667,773 \$	9,103,330	2,369
Sherman	\$ 45,831	52,156	744,586	11	0	0	3,696	83,028 \$	23,129 \$	443,832	72
Simsbury	\$ 962,315	1,544,398	18,018,052	254	51,556	592,250	30,366	619,751 \$	431,295 \$	6,041,695	1,451
Somers	\$ 138,600	131,463	1,483,828	21	261	5,213	7,979	158,597 \$	53,454 \$	863,540	164
South Windsor	1,176,000	2,811,035	35,630,204	328	65,435	996,764	24,399	508,140 \$	641,574 \$	9,045,490	2,089
Southbury	\$ 451,912	878,419	11,279,029	144	6,665	99,158	12,448	255,072 \$	206,213 \$	3,007,413	615
Southington	\$ 1,748,385	5,235,180	58,356,178	629	65,230	1,222,770	14,012	278,003 \$	1,023,434 \$	12,300,594	3,138
Sprague	\$ 192,459	1,274,383	21,547,017	78	0	0	2,326	47,371 \$	230,464 \$	3,884,133	657
Stafford	\$ 847,784	1,328,364	16,317,614	182	17,265	207,180	11,866	237,044 \$	291,952 \$	3,912,007	911
Stamford	\$ 6,964,226	13,792,185	166,027,680	1,534	199,571	3,503,186	52,179	1,133,535 \$	2,779,703 \$	36,323,431	8,669
Sterling	\$ 70,679	114,631	1,410,390	19	0	0	2,670	51,591 \$	30,090 \$	438,699	89
Stonington	\$ 606,026	1,065,007	13,929,715	164	2,845	53,523	15,318	311,526 \$	246,078 \$	3,632,599	735
Stratford	\$ 2,613,116	6,736,880	71,489,528	546	78,901	1,432,418	19,005	409,594 \$	1,316,090 \$	15,266,529	4,045
Suffield	\$ 523,963	714,563	8,483,148	58	7,923	141,692	19,511	366,189 \$	205,738 \$	2,991,640	633
Thomaston	\$ 174,665	442,858	5,075,458	54	2,917	53,249	4,729	95,908 \$	97,674 \$	1,290,070	291
Thompson	\$ 149,577	138,002	1,537,516	17	0	0	9,041	164,943 \$	58,390 \$	891,740	180
Tolland	\$ 1,187,070	1,962,916	24,034,581	270	502	9,799	14,321	286,923 \$	396,288 \$	5,232,710	1,141
Torrington	\$ 1,227,955	4,404,366	49,690,632	388	57,703	1,001,976	10,040	197,231 \$	856,953 \$	10,284,944	2,646
Trumbull	\$ 1,757,288	3,625,132	40,980,256	484	72,768	1,079,045	27,694	594,330 \$	802,395 \$	10,374,563	2,580
Union	\$ 17,610	32,183	390,821	6	0	0	434	8,342 \$	7,246 \$	98,915	20
Vernon	\$ 1,370,494	1,201,731	14,114,117	128	103,153	1,714,028	25,817	523,113 \$	401,649 \$	6,114,570	1,548
Voluntown	\$ 20,727	24,291	349,827	1	0	0	1,086	21,235 \$	8,355 \$	140,913	25
Wallingford	\$ 1,900,550	8,804,608	72,478,202	1,378	96,700	1,443,178	181	3,625 \$	1,620,362 \$	13,902,836	4,930
Warren	\$ 17,896	40,186	623,431	4	0	0	486	9,874 \$	8,835 \$	144,730	24
Washington	\$ 204,970	565,166	6,532,794	99	0	0	2,086	38,886 \$	106,216 \$	1,270,910	305
Waterbury	\$ 4,666,014	12,953,992	141,753,366	1,278	181,172	3,246,380	34,573	689,699 \$	2,550,119 \$	30,207,855	7,929
Waterford	\$ 926,452	4,413,246	42,805,583	453	16,160	195,308	11,211	235,238 \$	824,911 \$	8,446,655	2,413
Watertown	\$ 724,313	2,206,342	29,244,340	294	29,551	423,413	13,295	265,857 \$	461,318 \$	6,457,982	1,426
West Hartford	\$ 2,128,082	5,669,894	56,149,019	681	188,692	3,060,291	29,709	618,321 \$	1,271,797 \$	15,036,553	4,309
West Haven	\$ 2,259,292	2,472,792	30,130,628	233	109,456	1,910,853	19,052	398,858 \$	602,723 \$	8,590,175	2,123
Westbrook	\$ 335,631	932,466	12,684,670	90	5,253	88,669	6,389	130,193 \$	191,269 \$	2,763,611	567
Weston	\$ 276,241	262,323	3,467,335	44	2,775	54,307	17,796	384,655 \$	115,856 \$	2,113,076	363
Westport	\$ 619,267	844,065	9,927,274	170	24,127	487,846	30,855	646,747 \$	286,250 \$	4,650,131	952
Wethersfield	\$ 461,916	661,126	7,706,068	113	30,716	583,303	6,635	131,302 \$	168,337 \$	2,402,141	598
Willington	\$ 97,757	175,747	2,192,706	48	0	0	2,862	53,713 \$	41,448 \$	581,250	122
Wilton	\$ 915,817	1,658,264	20,578,379	259	5,341	81,810	41,059	859,161 \$	449,454 \$	6,886,737	1,356
Winchester	\$ 295,003	499,606	5,292,661	41	24,443	408,426	2,262	43,385 \$	117,868 \$	1,479,554	422
Windham	\$ 973,662	3,451,619	33,630,627	397	25,301	330,576	11,036	219,108 \$	665,387 \$	6,942,158	1,987
Windsor	\$ 1,992,210	9,003,725	123,088,781	1,026	75,894	987,078	25,151	498,100 \$	1,730,921 \$	24,031,830	5,219
Windsor Locks	\$ 497,045	1,150,660	13,632,501	106	19,206	324,241	5,693	111,196 \$	239,344 \$	3,087,706	756
Wolcott	\$ 385,860	579,129	7,128,443	89	9,938	151,461	12,031	244,426 \$	155,576 \$	2,305,258	486
Woodbridge	\$ 621,606	762,168	10,094,871	131	9,685	150,418	14,871	316,849 \$	197,977 \$	3,089,652	614
Woodbury	\$ 134,741	192,632	2,388,050	34	413	8,255	7,112	141,369 \$	60,933 \$	956,453	179
Woodstock	\$ 164,642	321,079	4,165,016	60	0	0	5,397	101,873 \$	76,366 \$	1,103,491	219

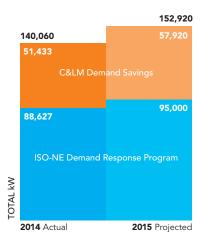
The towns indicated in **green** are Clean Energy Communities. Home Energy Reports behavior benefits not included in this listing.

#### 2014 ACTUAL SPENDING / 2015 BUDGET

Energy Efficiency Programs	2014 Actuals Electric	2015 Plan Electric		2014 Actuals Natural Gas	2015 Plan Natural Gas
RESIDENTIAL					
Residential Retail Products	\$ 15,469,122	\$ 15,383,477	\$	_	\$ _
Residential New Construction	1,831,056	2,270,921	·	1,406,967	1,733,530
Home Energy Solutions (HVAC, Duct Sealing, Lighting)	26,882,381	22,591,621		12,422,383	12,863,046
HES Income Eligible	21,385,612	20,407,550		12,067,681	8,077,802
Residential Behavior	2,840,680	3,284,199		113,523	620,656
Water Heating				692,324	961,251
Subtotal RESIDENTIAL	\$ 68,408,851	\$ 63,937,768	\$	26,702,877	\$ 24,256,285
COMMERCIAL & INDUSTRIAL					
Energy Conscious Blueprint	\$ 17,835,865	\$ 15,353,022	\$	6,403,170	\$ 6,878,884
Energy Opportunities	36,477,656	41,139,294		3,676,103	3,799,152
Business & Energy Sustainability (O&M, RetroCx, BSC)	3,003,327	6,440,043		730,566	1,440,465
PRIME	548,374	860,000			
Small Business	18,574,294	21,092,234		530,971	627,199
Subtotal C&I	\$ 76,439,517	\$ 84,884,593	\$	11,340,810	\$ 12,745,700
OTHER—EDUCATION					
Smart Living Center - Museum Partnerships	\$ 2,252,143	\$ 984,000	\$	498,971	\$ 246,000
Clean Energy Communities	1,405,325	1,720,000		137,028	429,999
EE Smarts / K-12 Education	670,977	800,000		60,371	200,001
Customer Engagement	1,817,979	2,088,000		284,008	382,000
Subtotal Education	\$ 6,146,424	\$ 5,592,000	\$	980,379	\$ 1,258,000
OTHER—PROGRAMS / REQUIREMENTS					
Institute for Sustainable Energy (ECSU)	\$ 448,000	\$ 486,400	\$	111,999	\$ 115,999
ESPC - Project Manager - Lead By Example	99,975	115,200		46,661	28,800
Residential Loan Program (Including ECLF & CHIF)	2,429,292	2,435,681		212,251	345,001
C&I Loan Program	204,387	1,130,350			259,000
C&LM Loan Defaults	75,809	156,111			258,999
C&I Self Funding	5,019,676	4,000,000			
Subtotal Programs/Requirements	\$ 8,277,139	\$ 8,323,742	\$	370,911	\$ 1,007,799
OTHER—LOAD MANAGEMENT & RD&D					
ISO Load Response Program	\$ 3,632,291	\$ 3,500,000	\$		\$ 
Research, Development & Demonstration	326,648	575,000		_	172,000
Subtotal Load Management and RD&D	\$ 3,958,939	\$ 4,075,000	\$	_	\$ 172,000
OTHER—ADMINISTRATIVE & PLANNING					
Administration	\$ 1,605,745	\$ 1,447,512	\$	351,711	\$ 361,878
Marketing Plan	846,516	1,385,667		259,924	191,333
Planning and Evaluation	3,109,591	3,919,200		619,946	979,800
Evaluation Consultant	315,611	291,600		254,562	72,900
Information Technology	999,594	1,600,000		274,796	399,999
Energy Efficiency Board	687,922	680,180		126,007	170,046
Performance Management Fee	9,303,093	7,006,619		2,180,114	1,654,912
Admin/Planning Expenditures	\$ 16,860,072	\$ 16,330,778	\$	4,067,060	\$ 3,830,868
PROGRAM SUB-TOTALS					
Residential	\$ 76,566,691	\$ 72,115,582	\$	27,919,446	\$ 25,800,752
C&I	\$ 86,636,072	\$ 94,906,587	\$	11,576,796	\$ 13,513,566
Other	\$ 16,888,179	\$ 16,121,711	\$	3,965,796	\$ 3,956,335
TOTAL C&LM BUDGET	\$ 180.090.942	\$ 183,143,881	\$	43,462,038	\$ 43,270,653

#### LOAD MANAGEMENT & PEAK DEMAND

Load management programs reduce peak demand and have direct impact on consumers, as reductions in needed capacity can result in lower electricity prices to the wholesale market (referred to as the Demand-Reduction-Induced Price Effect or DRIPE), and also reduce the federally mandated congestion charges on electric bills.



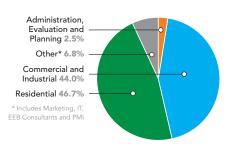
Peak Demand Savings available from the Energy Efficiency Fund, CMEEC, Town of Wallingford and ISO-New England Programs (in kW)

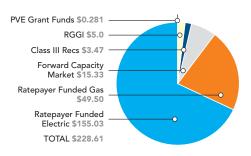
#### 2014 EFFICIENCY PROGRAM SPENDING

Energy Efficiency
Fund programs are
administered to
maximize the costeffectiveness and
impacts of energy
efficiency and load
management activities.

#### 2014 EFFICIENCY PROGRAM FUNDING

Funding for energy efficiency programs comes from many sources. Funding reflects 2014 revenues received. (In Millions)





### CONNECTICUT MUNICIPAL ELECTRIC ENERGY COOPERATIVE

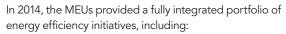


#### **BACKGROUND**

The Connecticut Municipal Electric Energy Cooperative (CMEEC), a joint action supply and transmission agency established by the state's municipal electric utilities, is owned by the Cities of Groton and Norwich, the Borough of Jewett City and South and East Norwalk. In addition, CMEEC provided all power requirements to these participating utilities: Bozrah Light and Power Company, and the Mohegan Tribal Utility Authority. Energy use and costs continue to be of critical importance to all Connecticut residents and businesses. In 2014, Municipal Electric Utilities (MEUs) continued their proactive work in partnerships with their municipalities, commercial and industrial businesses, residents and income limited customers. By supporting the energy supply, transmission and distribution needs of all customer sectors, MEUs serve as integrated energy managers helping to reduce and reshape energy use and assisting the entire spectrum of customers to lower energy costs. In 2014, MEUs realized annual savings of 4,423,000 kilowatt-hours. These savings were achieved through the delivery of a full array of energy efficiency programs. In total, over 9,000 customers participated in the programs.

#### **CONSERVATION AND LOAD MANAGEMENT**

The Municipal Electric Utilities (MEUs) continued delivery of cost effective Conservation and Load Management ("C&LM") programs to customers in 2014. CMEEC, on behalf of the MEUs, worked with the members of the Energy Efficiency Board (EEB) pursuant to Conn. Gen. Stat. Section 7-233y, in implementing additional programs to reduce customer electricity usage and peak demand. The C&LM Plan measures the overall impact of electricity conservation programs on customer energy usage and peak demand.



- Performing comprehensive energy audits and weatherization of 820 homes;
- Distributing over 50,000 compact fluorescent and LED lamps, bringing the total to over 1,300,000 since program inception in 2006;
- Promotion/purchase of over 35 ENERGY STAR® appliances through the mail-in Appliance Rebate program;
- Participation in the Cool Choice HVAC Rebate program by more than 85 residential and commercial customers;
- Providing energy efficiency assessments and incentives for over 70 commercial and industrial customer projects (e.g., custom equipment replacement, lighting retrofits, etc.).
- Serving more than 9,000 customers in total.

CL&M efforts during 2014 resulted in a 0.5 MW coincident summer peak demand reduction and 4,423 MWh in annual energy savings, at a cost of \$0.027 per lifetime kWh. MEU commercial and industrial customers received over \$1,218,500 in incentives for installing energy efficiency measures in their facilities. Residential customers received over \$1,182,000 in incentives. These efforts will continue through 2015 and beyond.

#### **MUNICIPAL ELECTRIC UTILITIES**

Groton Public Utilities
Norwich Public Utilities
South Norwalk Electric and Water
The Third Taxing District of Norwich Electric Utility
Jewett City Public Utilities
Bozrah Light and Power





#### 2014 CMEEC PROGRAM HIGHLIGHTS

#### **CMEEC ASSISTANCE TO CUSTOMERS**

(ROUNDED TO \$ THOUSANDS)

This table details the incentives and rebates provided to MEU residential, commercial and industrial customers in 2014.

LIFETIME EMISSIONS RED	UCTIONS
CO <sub>2</sub> Emissions Reduced	72,898 Tons
NO <sub>x</sub> Emissions Reduced	12.6 Tons
SO <sub>x</sub> Emissions Reduced	6.8 Tons

Bozrah Light and Power	\$ 142,000
Groton Utilities	938,000
Jewett City Department of Public Utilities	80,000
Norwich Public Utilities	997,000
Norwalk Third Taxing District	137,000
South Norwalk Electric and Water	107,000
TOTAL ASSISTANCE	\$ 2,401,000

#### 2014 CMEEC SUMMARY

Program	Program Budget 2014	Actual Utility Costs 2014	% of Budget Spent	Proj. Annual Savings (kWh)	Annual Energy Savings (kWh)	% of Annual kWh Saved	Lifetime Savings (kWh)	2014 Proj. kW Impact	Actual kW Impact	% of kW Impact Achieved	Summer Peak kW Demand Reduction
Residential											
Home Energy Savings Program	\$ 796,200	\$ 574,320	72%	2,390,690	256,947	11%	1,700,797	545	236	43%	44
Efficient Products											
Lighting	338,100	274,213	81%	3,274,980	1,263,514	39%	6,085,882	1,360	1,607	118%	144
Appliances	64,100	291,724	455%	55,180	60,430	110%	1,013,000	29	11	37%	11
Subtotal — Residential	\$ 1,198,400	\$ 1,140,257	95%	5,720,850	1,580,891	28%	8,799,679	1,933	1,854	<b>96</b> %	199
Commercial											
Commercial New Construction	\$ 100,000	\$ _	_	_	_	_	_	_	_	_	_
Prescriptive Equipment Replacement	618,500	277,654	45%	1,439,000	646,608	45%	10,509,712	331	100	30%	72
C&I Existing Facility Retrofit	1,079,100	940,845	87%	3,609,170	2,156,919	60%	27,793,390	854	429	50%	266
Subtotal — Commercial	\$ 1,797,600	\$ 1,218,499	68%	5,048,170	2,803,527	56%	38,303,103	1,185	529	45%	338
Renewables	200,000	42,240	21%	80,130	38,826	48%	970,650	_	30	0%	30
Total - All Programs	\$ 3,196,000	\$ 2,400,997	75%	10,849,150	4,423,244	41%	48,073,431	3,118	2,412	77%	566

 ${\sf Notes:} \quad {\sf 1.} \ {\sf Data} \ {\sf for Limited Income Customers} \ {\sf is included} \ {\sf under the Home Energy Savings Program}.$ 

#### 2014 CMEEC PROGRAM HIGHLIGHTS



Customers Served 9.106



Energy Savings kWh Annual 4.4 Million

kWh Lifetime 48.1 Million



Annual Savings \$657.7 Thousand



**MMBTUs** 

Annual 15.0 Thousan Lifetime 160.8 Thousand



Lifetime Savings \$7.1 Million



CO₂ Emissions Reduced 2,105 Tons (Annual) NOx Emissions Reduced
0.3 Tons (Annual)

O.1 Tons (Appual)

#### WALLINGFORD ELECTRIC DIVISION

#### **BACKGROUND**

In January, 2014 the Wallingford Electric Division (WED) began, as an individual provider, to offer a portfolio of energy efficiency programs to it 25,000 customers in Wallingford and the Northford section of North Branford. The WED, serving its customers since 1899, continues to offer safe, reliable and affordable power to its customers while helping them to lower their energy costs and reduce energy use, thereby helping the environment as well. In 2014 the Wallingford Electric Division, through its energy efficiency programs, achieved savings of 8,636,952 kWh and peak demand savings of 1,372 kW.

#### **RESIDENTIAL CUSTOMERS**

The Wallingford Electric Division strives to offer a portfolio of programs similar to the CMEEC and investor-owned utility programs. Rebates and incentives are offered for central air and heat pump systems, heat pump hot water heaters and attic insulation. Energy-efficient CFL and LED bulbs are distributed through multiple channels. A total of approximately 16,000 residential customers benefited from these offerings in 2014.

The Home Energy Savings program is provided to customers free of any co-payment\* and was performed on 441 homes in 2014, with 34 also adding attic insulation and 17 installing heat pump water heaters. Ninety-nine customers received rebates for choosing energy efficient central air conditioning or heat pumps, installing 234 tons of energy-efficient equipment. To date, over 7,000 HES visits have been completed, providing energy savings improvements to over a third of the WED's 21,000 residential customers.

The distribution of CFL and LED bulbs continued in 2014, with approximately 7,800 installed during HES visits, 31,425 direct-mailed to customers who returned coupons inserted into electric bills twice during the year, and 85,963 bulbs sold in retail outlets at deeply discounted prices through the Negotiated Cooperative Purchase Program.

\* WED customers who are also customers of Eversource must pay a co-pay for the HES program.

#### **COMMERCIAL & INDUSTRIAL CUSTOMERS**

Rebates and incentives are available to commercial and industrial customers for lighting, heating, ventilation and air conditioning, air compressors and other equipment that uses electricity for power. Seventy-three lighting projects received incentives in 2014, resulting in a savings of 1,839,145 kWh and 299 kW of peak demand savings. Seven customers installed energy-efficient new equipment representing savings of 1,863,235 kWh and 411 kW of peak demand savings. Twelve customers benefited from the Cool Choice prescriptive program and installed energy-efficient air conditioning units totaling 305 tons.







### **2014 PROGRAM HIGHLIGHTS**

#### 2014 WALLINGFORD ELECTRIC DIVISION SUMMARY

Program	Program Budget 2014	Act	tual Utility Costs 2014	% of Budget Spent	Proj. Annual Savings (kWh)	Annual Energy Savings (kWh)	% of Annual kWh Saved	Lifetime Savings (kWh)	2014 Proj. kW Impact	Actual kW Impact	% of kW Impact Achieved	Summer Peak kW Demand Reduction
Residential												
Home Energy Savings Program	\$ 450,000	\$	366,930	82%	626,800	28,713	5%	341,391	_	27	_	27
Efficient Products												
Lighting	300,000		508,608	170%	2,520,600	4,812,576	191%	26,734,744	_	909	_	591
Rebates	25,000		83,772	335%	26,500	73,635	278%	1,165,048	_	14	_	14
Subtotal – Residential	\$ 775,000	\$	959,310	124%	3,173,900	4,914,924	155%	28,241,183	398	950	239%	632
Commercial												
Prescriptive Equipment Replacement	\$ 30,000	\$	38,750	129%	109,200	19,648	18%	294,718	_	20	_	20
C&I Custom	180,000		318,880	177%	546,100	1,863,235	341%	27,948,525	_	411	_	411
Lighting Retrofit	994,000		446,249	45%	4,145,900	1,839,145	44%	14,713,160	_	310	_	299
Subtotal – Commercial	\$ 1,204,000	\$	803,879	67%	4,801,200	3,722,028	78%	42,956,403	602	741	123%	730
Renewables	200,000		17,170	9%	_	_	_	_	_	_	_	_
Total - All Programs	\$ 2,179,000	\$	1,780,359	82%	7,975,100	8,636,952	108%	71,197,586	1,000	1,691	169%	1,362

#### 2014 WALLINGFORD ELECTRIC DIVISION PROGRAM HIGHLIGHTS



Customers Served 16,212



Energy Savings kWh Annual 8.6 Million

(kWh = Electricity)
kWh Lifetime
71.2 Million



Annual Savings \$1.3 Million



MMBTUs

nnual Lifetime 9.5 Thousand 243.0 Thousan



Lifetime Savings \$10.7 Million



CO<sub>2</sub> Emissions Reduced

NOx Emissions Reduced
0.6 Tons (Annual)

SO<sub>x</sub> Emissions Reduced
0.1 Tons (Annual)

#### **ENERGY EFFICIENCY BOARD MEMBERS**



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#### **Empowering you to make** smart energy choices









**UIL HOLDINGS COMPANIES** 





#### CONNECTICUT ENERGY EFFICIENCY FUND

Activities in 2014 Produced Substantial Economic and Environmental Benefits for Residents, Businesses and Municipalities



#### **Customers Served**

Number of Households Served 989,190

Number of Businesses Served



#### **Energy Savings**

kWh Annual CCF Annual 387.8 Million 6.3 Million

kWh Lifetime **CCF** Lifetime 4.2 Billion 103.0 Million

Gallons Annual (Fuel Oil & Propane) 2.1 Million

Gallons Lifetime (Fuel Oil & Propane)

42.4 Million



#### **Air Emissions Reduced**

CO<sub>2</sub> 3.2 Million Tons (Lifetime) 3,002 Tons (Lifetime)  $SO_X$  $NO_{x}$ 1,216 Tons (Lifetime)



#### **Dollars Saved**

Annual Lifetime \$81.0 Million \$978.3 Million



#### **MMBTUs**

Annual Lifetime 2.3 Million 30.5 Million

The legislation that created the Energy Efficiency Fund and Board is Conn. Gen. Stat. § 16-245m, as amended by P.A. 13-5 § 13 and 13-298 § 16. The legislation that created the conservation and load management fund for municipal electric companies is Conn. Gen. Stat. § 7-233y. More information on these laws can be found at EnergizeCT.com/about/CEEF

Energize Connecticut helps you save money and use clean energy. It is an initiative of the Energy Efficiency Fund, the Connecticut Green Bank, the State, and your local electric and gas utilities with funding from a charge on customer energy bills.

#### **Energy Efficiency Board**

c/o Connecticut Public Utilities Regulatory Authority Ten Franklin Square New Britain, CT 06051 1-877-WISE USE (947-3873) EnergizeCT.com

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