

# Energy Efficiency Board 2012 Programs and Operations Report



MARCH 1, 2013

# The Year in Review

## EMPOWERING OUR STATE TO MAKE SMART ENERGY CHOICES



On behalf of the Energy Efficiency Board, I am pleased to deliver the 2012 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 2012, Connecticut moved up to 6th place in the ranking of state energy efficiency policies and implementation. This advancement is a reflection of Governor Malloy's commitment to energy efficiency, and shows that state residents and business owners understand the economic and environmental need for it. Our commitment to energy efficiency is also front and center in the state's first-ever Comprehensive Energy Strategy and is embodied in the tagline of our new Energize Connecticut marketing initiative – "Empowering You 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 return on investment demonstrates that Energy Efficiency Fund programs are a powerful economic incentive: 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.

As we move into 2013, we are eager to pursue opportunities to increase the effectiveness and scope of Connecticut's energy efficiency investments. Over the coming year we anticipate collaborating with the legislature and stakeholders to continue pursuing a unified approach to marketing the state's clean energy programs, a gradual increase in funding to achieve all cost-effective energy efficiency, and a shift from a subsidy-based model to one which involves significant private, third-party finance. We are confident these innovations will help Connecticut realize the Governor's goal of being number one in the nation when it comes to energy efficiency.

With these opportunities at hand, the Energy Efficiency Board looks forward to working cooperatively with legislators and all of Connecticut's energy stakeholders to continue advancing the state's leadership position in energy efficiency.

Sincerely,

**Daniel C. Esty**

Commissioner

Connecticut Department of Energy and Environmental Protection

## ENERGY EFFICIENCY FUND 2012 RESIDENTIAL PROGRAM SAVINGS



### Customers Served

500,836



### CO<sub>2</sub> Emissions Reduced

93,326 Tons (Annual)



### Annual Savings

\$27.9 Million



### Lifetime Savings

\$276.4 Million



### MMBTUs

Annual	Lifetime
.8 Million	9.3 Million



### Energy Savings

kWh Annual	136.6 Million
kWh Lifetime	965.9 Million

(kWh = Electricity, CCF = Natural Gas, Gallons = Fuel Oil & Propane)

### CCF Annual

1.5 Million

### CCF Lifetime

27.7 Million

### Gallons Annual

1.2 Million

### Gallons Lifetime

22.9 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 The Connecticut Light and Power Company, The United Illuminating Company, Connecticut Natural Gas Corporation, The Southern Connecticut Gas Company and Yankee Gas Services Company. The EEB also oversees the energy efficiency programs of the Connecticut Municipal Electric Energy Cooperative (CMEEC), and their 2012 activities are also detailed in this report.

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. CL&P and UI 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

In 2011 the EEB marketing committee began a series of discussions about how the Energy Efficiency Fund might adjust its messaging in order to support a long-term goal of market-based programs, deeper/broader measures, and significantly increased energy savings. With the creation of the Department of Energy and Environmental Protection (DEEP), the discussion broadened to include marketing renewable programs as well. In 2012 a new brand, Energize Connecticut, was created. Energize Connecticut is now the overarching,

public-facing brand that represents programs and services supported by the Energy Efficiency Fund and the Clean Energy Finance Investment Authority (CEFIA). The ultimate message of the new brand is captured in its tagline, "Empowering you to make smart energy choices". A new state energy and environmental website, EnergizeCT.com, was created and launched in January 2013, replacing CTEnergyInfo.com.

## CONNECTICUT IS A NATIONALLY RECOGNIZED LEADER IN ENERGY EFFICIENCY

In their 2012 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. The ACEEE also designated the Energy Efficiency Fund's Home Energy Solutions<sup>SM</sup>, Residential New Construction, and Small Business Energy Advantage programs as programs to be recognized in their Third National Review of Exemplary Programs. The Department of Energy recognized the Fund with its ENERGY STAR<sup>®</sup> Sustained Excellence Award for participation in the Northeast Retail Products Initiative and with its ENERGY STAR Leadership in Housing Award for commitment to promoting energy-efficient construction.

## ENERGY EFFICIENCY FUND 2012 COMMERCIAL & INDUSTRIAL PROGRAM SAVINGS



### Businesses Served

4,579



### CO<sub>2</sub> Emissions Reduced

107,200 Tons (Annual)



### Annual Savings

\$25.9 Million



### Lifetime Savings

\$320.4 Million



### MMBTUs

Annual  
.9 Million

### Lifetime

10.5 Million



### Energy Savings

kWh Annual

185.5 Million

kWh Lifetime

2.3 Billion

(kWh = Electricity, CCF = Natural Gas)

CCF Annual

2.1 Million

CCF Lifetime

25.6 Million

# Residential Energy Solutions

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

HES | HES-Income Eligible | Home Performance with ENERGY STAR<sup>®</sup>



**“On a low income, upgrading your appliances to be more energy-efficient is a lot of money to put out, but this program helped me to do it.”**

Ruth Seymour, Milford

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 professionals including home improvement contractors, oil dealers, heating and cooling contractors and insulation installers.

Making the most out of the initial HES visit was a major focus in 2012. Contractors were encouraged to achieve deeper savings at the time of the home assessment through enhanced testing and air sealing. 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.

Our Home Performance with ENERGY STAR (HPwES) program was officially endorsed by the U.S. Environmental Protection Agency and the U.S. Department of Energy. HPwES focuses on custom measures and deeper, persistent savings and is a way to extend HES services through a broader market-based contractor community. In 2012, Connecticut’s HPwES program outperformed every other participating state in the nation.

2012 was also a successful year for the Multi-family Initiative. Multi-family projects may address multiple issues 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.

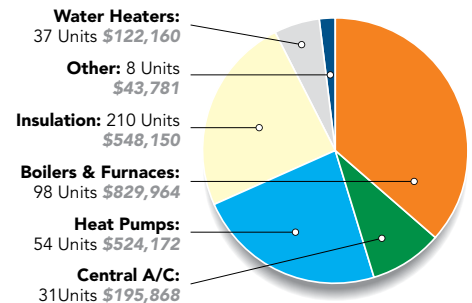
Energy Efficiency Improvements Included
Air sealing
Hot water pipe insulation
CFL lightbulbs
Health and safety measures
Replacement of inefficient refrigerator and chest freezer with ENERGY STAR <sup>®</sup> models
Insulation upgrade
Estimated Annual Savings
696 kilowatt-hours
221 ccf (natural gas)
\$429

### Residential Financing

Residential financing is in partnership with the Connecticut Housing Investment Fund (CHIF). Eligible Connecticut residents can finance home energy efficiency improvements recommended through the HES program with low-interest loans that can be repaid on their electric bills.

### 2012 RESIDENTIAL FINANCING

2012 residential financing totaled over \$2.3 million and 297 loans.



### 2012 HOME ENERGY SOLUTIONS – INCOME ELIGIBLE



**Customers Served**  
12,877



**CO<sub>2</sub> Emissions Reduced**  
15,831 Tons (Annual)



**Annual Savings**  
\$4.5 Million



**Lifetime Savings**  
\$74.1 Million



**MMBTUs**

Annual	Lifetime
164.8 Thousand	2.8 Million



**Energy Savings** (kWh = Electricity, CCF = Natural Gas, Gallons = Fuel Oil & Propane)

kWh Annual	CCF Annual	Gallons Annual
14.2 Million	637.2 Thousand	368.4 Thousand
kWh Lifetime	CCF Lifetime	Gallons Lifetime
195.3 Million	11.2 Million	7.5 Million



*"HES prioritized what had been a daunting list of renovation needs, while the loan and rebates stretched my limited budget to fit those needs."*

Nancy Boudreau, Sandy Hook

Energy Efficiency Improvements Included
Air sealing
Hot water pipe insulation
CFL lightbulbs
Ceiling insulation
Estimated Annual Savings
480 kilowatt-hours
165 gallons of fuel oil
\$695
Ms. Boudreau redeemed a \$400 Energy Efficiency Fund insulation rebate and took advantage of the Fund's no-interest insulation financing program

*"I can definitely tell that the insulation, in combination with the other energy improvements made at the time of my assessment, has improved the sealing of my house from air leaks, while reducing the cost of heating our home."*

Chuck Wiley, Stamford

Energy Efficiency Improvements Included
Air sealing
Duct sealing
Hot water pipe insulation
CFL lightbulbs
Ceiling insulation
Estimated Annual Savings
1,886 kilowatt-hours
336 gallons of fuel oil
\$1,526
Mr. Wiley redeemed a \$1,000 Energy Efficiency Fund insulation rebate and took advantage of the Fund's no-interest insulation financing program



*"My experience with the Energy Efficiency Fund was quick and painless. My tenants are saving approximately 40 percent over last year's heating bills. I can't wait to see the savings on the central air system."*

Robert Lanziero, Property Owner,  
Bull Hill Lane, West Haven

Energy Efficiency Improvements Included
12 Apartments Received:
Air sealing
Duct sealing
Hot water pipe insulation
CFL lightbulbs
Safety testing
Furnace replacement
Central air conditioning replacement
Project cost: \$69,774
Incentive: \$16,980
Estimated Annual Savings (over 12 apartments)
9,045 kilowatt-hours
2,305 ccf (natural gas)
\$4,509

## 2012 HOME ENERGY SOLUTIONS



**Customers Served**  
28,715



**CO<sub>2</sub> Emissions Reduced**  
26,372 Tons (Annual)



**Annual Savings**  
\$7.7 Million



**Lifetime Savings**  
\$115.4 Million



**MMBTUs**  
Annual: 265.4 Thousand  
Lifetime: 4.3 Million



**Energy Savings** (kWh = Electricity, CCF = Natural Gas, Gallons = Fuel Oil & Propane)

kWh Annual: 23.3 Million	CCF Annual: 782.5 Thousand	Gallons Annual: 778.2 Thousand
kWh Lifetime: 238.8 Million	CCF Lifetime: 14.2 Million	Gallons Lifetime: 15.2 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 (i.e., high-performance insulation, high efficiency natural gas and electric water heaters, geothermal heat pumps and heating and cooling equipment) into new homes during the design phase.

In 2012, the RNC program administrators were especially focused on working with the building community to help them comply with the 2009 International Energy Conservation Code, adopted in October 2011, and with ENERGY STAR® for Homes Version 3.0, adopted in July 2012. CL&P and UI program administrators hosted a number of training seminars on topics including air sealing verification, duct leakage, and heating/cooling equipment sizing.



### FIRST PLACE

**Owners:** Paul & Diane Honig

**Builder:** Wolfworks, Inc.

Winner of the following categories:

- Lowest Projected Annual Operating Cost
- Lowest Home Energy Rating Index; Most Affordable Project (cost/sq. ft.)

*“Investing the extra money up front to build a more sustainable house was worth it. We discovered in the long run, those extra funds are more than offset by the savings you get in return.”*

Paul Honig

#### Project Highlights

Built to International Passive House standards
Advanced air sealing
Ductless mini-split heat pump
Solar thermal hot water
10 kilowatt photovoltaic array
Approximately \$169 per square foot to build

## 2012 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.



### SECOND PLACE

**Owner/Builder:** Preferred Builders

*“After construction was complete, our home in Old Greenwich received six energy and environmental certifications, which I am extremely proud of.”*

Pete Fusaro

#### Project Highlights

Ultra-efficient natural gas boiler
High efficiency air conditioning
On-demand tankless hot water heaters
Water fixtures meet EPA WaterSense program requirements
Energy recovery ventilator meets EPA indoor airPLUS program requirements
5 kilowatt photovoltaic array

## 2012 RESIDENTIAL NEW CONSTRUCTION



**Customers Served**

906



**CO<sub>2</sub> Emissions Reduced**

1,426 Tons (Annual)



**Annual Savings**

\$375.0 Thousand



**Lifetime Savings**

\$7.3 Million



**MMBTUs**

Annual: 15.0 Thousand  
Lifetime: 323.0 Thousand



**Energy Savings**

(kWh = Electricity, CCF = Natural Gas, Gallons = Fuel Oil & Propane)

kWh Annual	CCF Annual	Gallons Annual
1.7 Million	80.5 Thousand	8.7 Thousand
kWh Lifetime	CCF Lifetime	Gallons Lifetime
29.6 Million	2.0 Million	213.0 Thousand



**THIRD PLACE**

**Owners:** James Gainfort and Hayden McKay

**Builder:** BPC Green Builders

- Winner of the Lowest Home Energy Rating System Index without Renewable Technologies category

*“The vision for our future retirement house focused on comfort, low operating costs, low maintenance and a connection to nature.”*

Hayden McKay

Project Highlights
Certifications: LEED for Homes, ENERGY STAR® Homes Version 3.0, Building America Partner, Indoor airPlus program
Construction allows for continuous, advanced insulation
High efficiency propane boiler for hot water
Radiant tube floor heating (first floor); hydro-air system heating (second floor)

**RETAIL LIGHTING**

The award-winning Retail Products program continues to promote the sale of ENERGY STAR® lighting products including CFLs, and now light emitting diode, or LED lightbulbs, 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 they reach the retailer’s shelves. This allows customers to 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 on-line 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 to raise money and expand awareness of the benefits of efficient lighting.

**ADVANCING THE SALE OF LED LIGHT BULBS**

In 2012, the big lighting story was the increase in the sale of LED lightbulbs. Energy Efficiency Fund incentives on ENERGY STAR certified LEDs were introduced in 2011 with a limited number of products on store shelves. By the end of 2012, there were nearly 100 different models of Fund-discounted LEDs available, including dimmable, multi-directional 60-watt replacement lightbulbs. In total, more than 182,000 LED lightbulbs were sold in 2012 with a Fund incentive – representing approximately six percent of our total residential lighting sales, compared to the less than one percent in 2011.



*Energize Connecticut-branded signage in retail locations where lighting is sold helps consumers locate Fund-discounted products.*



**2012 RETAIL LIGHTING PRODUCTS**

Products Sold	
CFLs	3,005,676
LEDs	182,372
Other Lighting	6,576

Energy Savings	
kWh Annual	97.3 Million
kWh Lifetime	501.6 Million

Annual Savings	
	\$15.3 Million

CO <sub>2</sub> Emissions Reduced	
	49,560 Tons (Annual)

MMBTUs	
Annual	332.2 Thousand
Lifetime	1.7 Million

Lifetime Savings	
	\$79.2 Million

# Residential Energy Solutions

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

In 2012, residential consumers could take 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.

Hot Water Heater Rebates
Natural Gas Hot Water Heaters
Heat Pump Water Heaters

Heating and Cooling Rebates
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

Appliance Rebates
TopTen Refrigerators
TopTen Clothes Washers
TopTen Freezers

Note: Additional rebates available through participation in the Home Energy Solutions program.

### TOPTEN USA: ENERGY-EFFICIENT SHOPPING MADE SIMPLE

In 2012, Connecticut became the first state in the nation with an on-line guide to local retailers offering the most energy-efficient appliances and electronics available. TopTenUSA.org/CT identifies the ten most efficient ENERGY STAR products in categories including televisions, computer monitors, laptops and desktop computers, refrigerators and freezers, dishwashers, clothes washers, hot water heaters, and LED lightbulbs.

The site enables consumers to choose a product category and compare the energy-saving features and benefits of the ten most efficient models. Customers can then find a retailer near them who carries the product by entering their ZIP code. The site also links products to available Energy Efficiency Fund rebates including water heaters, refrigerators, clothes washers and freezers.



**2013 CONNECTICUT RESIDENTIAL QUALITY INSTALLATION AND VERIFICATION REBATE FOR EXISTING HOMES**

Valid for all Connecticut Light & Power and United Illuminating (in the case of ACHPP) Connecticut Natural Gas Company, Southern Connecticut Gas Company or Yankee Gas Service in the case of natural gas furnished residential service customers ("Customers"). This 2013 Connecticut Residential Quality Installation and Verification Rebate for Existing Homes Program ("Program") covers eligible residential "Customer" installed by a **QIV-eligible approved contractor that must be chosen from the website directory** on or after January 1, 2013 through December 31, 2013. To find a QIV-eligible approved contractor, please visit [www.energysolutions.com](http://www.energysolutions.com) or contact your local Home Energy Solutions (HES) representative to make an appointment for the Program. The HES representative must be present at the installation. **NEW** (existing model being replaced) for new items as an energy efficient alternative. This rebate amount is limited to \$500 per household per HES representative, please call 877-852-USE (877-852-8753). This 2013 Connecticut Residential Quality Installation and Verification Rebate for Existing Homes application form ("Application") must be completed by January 31, 2014.

**INSTRUCTIONS:** Please fill out this Application completely, truthfully and accurately, make a copy for your records and mail it along with a copy of your recent applicable electric and/or natural gas utility bill and all completed provided documents to:  
**Rohlf, Inc. Energy Service, 98 Overbrook Road, Madison, CT 06442**

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**Customer Information**

Last Name \_\_\_\_\_ Telephone \_\_\_\_\_ Email \_\_\_\_\_  
 Address \_\_\_\_\_ Electric Utility (check one) \_\_\_\_\_ Electric Account Number (as stated on bill) \_\_\_\_\_  
 CL&P  UI  
 State \_\_\_\_\_ Zip \_\_\_\_\_ Gas Company (check one) \_\_\_\_\_ Gas Account Number (as stated on bill) \_\_\_\_\_  
 Yankee Gas Service Company  Connecticut Natural Gas  
 Southern Connecticut Gas  
 State \_\_\_\_\_ Zip \_\_\_\_\_ Type of installation (check one) \_\_\_\_\_  
 New installation (existing home)  Replacement (of existing system)

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**Model / Incentive Schedule**

Minimum Efficiency for Incentive	Incentive per System	Incentive Total
Installed System: AHERF: Rated 14.5 SEER*, 12 EER† Max. 65,000 BTU/h* Description: AHERF: Rated 14.5 SEER*, 12 EER†, 3.1 HSPF Max. 45,000 BTU/h* Max. Eff: AHERF: Rated 16.5 SEER, 14 EER, 3.4 HSPF Max. 45,000 BTU/h* Elig. and Refrigerant Includes: *SEER - Seasonal Energy Efficiency Ratio; †EER - Energy Efficiency Ratio; *BTU/h - British Thermal Unit/hour Performance Factor: †AHERF - Annual Fuel Utilization Efficiency; †E - Furnace Fuel Efficiency †Annularly as listed on manufacturer's energy conservation label. QIV not applicable for ACHPP funds QIV and/or incentive system. QIV may be used for separate model units of CL&P and UI service. QIV eligibility for EER requirement waived. All eligible energy levels must be made to qualify for incentive.	\$500	\$
	\$500	\$
	\$500	\$

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**Contractor Information**

Name \_\_\_\_\_ Contractor License Number \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 The Number \_\_\_\_\_  
 ( ) \_\_\_\_\_

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**Sign Here**

I, by signing this Application below, certify that all the information described on and provided with this Application are accurate and true and that I have read and understand the Connecticut Residential Quality Installation and Verification Rebate for Existing Homes Program **TERMS AND CONDITIONS** on the back of this form. By signing this Application, further certify that the qualifying Specialty has been used for use in the Connecticut residential address stated.

Customer Signature (required) \_\_\_\_\_ Date \_\_\_\_\_ Home Energy Solutions Company \_\_\_\_\_ Home Energy Solutions Job Number \_\_\_\_\_

\*You may be eligible for federal tax credits. Please refer to www.energysolutions.com for more information.

### 2012 RETAIL REBATES

	Number of Rebates	Annual Energy Savings			Lifetime Energy Savings			MMBTU		CO <sub>2</sub> Savings		Dollar Savings	
		kWh	CCF	Oil & Propane	kWh	CCF	Oil & Propane	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime
<b>Natural Gas Water Heater</b>	277	—	19,671	—	—	340,980	—	2,024	35,087	119	2,056	\$23,517	\$405,100
<b>Heat Pump Hot Water</b>	183	306,525	—	—	3,678,300	—	—	1,046	12,554	156	1,873	\$47,607	\$571,279
<b>HVAC (Central Air, Furnaces and Boilers)</b>	3,954	910,954	74,118	7,476	16,005,945	1,449,943	142,386	11,773	223,575	1,008	18,747	\$257,664	\$4,745,331
<b>Geothermal Heat Pump</b>	194	175,856	—	—	3,165,415	—	—	600	10,804	90	1,612	\$27,312	\$491,623
<b>Ductless Heat Pump</b>	1,108	662,175	—	—	11,919,160	—	—	2,260	40,680	337	6,069	\$102,843	\$1,851,172
<b>TopTen Appliances</b>	67	11,638	12	4	129,713	136	45	42	463	6	67	\$1,837	\$20,468



# Community and Education Energy Solutions

## eesmarts™

The innovative eesmarts program continues to offer custom and general professional development workshops to hundreds of Connecticut educators on the basics of energy efficiency, renewable energy and how electricity works. In 2012, the program provided 21 professional development workshops and over 1,700 lessons free of charge to over 330 grade K-9 educators throughout the state. All eesmarts workshops and lessons are fully aligned with the Connecticut Mastery Test, the Connecticut State Science Framework, the Connecticut State Mathematics Framework and the National Science Standards.



2012 eesmarts student contest winners.

In 2012, the eesmarts program continued its direct educational outreach to Connecticut's youth by hosting 17 eeEvents at schools and museums. eesmarts and the Girl Scouts of Connecticut continued their joint partnership by hosting three Energy Adventures Forums, including participation in the Girls Scout's 100 Year Jubilee. eesmarts was also a sponsor again of the Sustainable Resources and Practices (Middle School) and Future Sustainability (High School) categories at the Connecticut Science Fair.

***"These are great projects, great poems, great ideas ... We want to encourage more children to be interested in the sciences and math fields and this is yet another way to do it."***

Governor Dannel P. Malloy



Students and their projects at 2012 eesmarts student contest awards ceremony

### 8TH ANNUAL STUDENT CONTEST

More than 800 schoolchildren in grades K-12 submitted entries in the eesmarts annual student contest – the most in its eight-year history. Entries took the form of posters, limericks, essays and songs on topics including climate change, energy efficiency, renewable energy sources and recycling. More than 120 parents and supporters attended the awards ceremony, along with Governor Dannel P. Malloy, DEEP Commissioner Daniel Esty and WFSB Channel 3 Meteorologist Mark Dixon, who served as Master of Ceremonies.

### TECHNICAL SCHOOL E-HOUSE

In October 2012 the Connecticut Technical High School System, in partnership with the Energy Efficiency Fund and the Clean Energy Finance and Investment Authority, opened the state's second E-House at Oliver Wolcott Technical High School in Torrington. Considered the nation's first high-school laboratories for learning "green" construction, the E-House initiative provides a clean energy and energy efficiency curriculum for the schools' architectural, carpentry, electrical and plumbing faculty and students. This

workforce development initiative, moving students and educators beyond the textbook to hands-on training, was highlighted in the 2012 American Council for an Energy-Efficient Economy Summer Study in Pacific Grove, California.

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. The E-House initiative gives students the opportunity to conduct hands-on fieldwork and earn professional certifications in these various labs, preparing them for a "green" career after graduation.



Wolcott Tech E-House.



Commissioner Daniel Esty with students inside the Wolcott Tech E-House.

# Community and Education Energy Solutions

## MUSEUM PARTNERSHIPS

In 2012 the Energy Efficiency Fund continued its support of several interactive exhibits relating to energy, energy efficiency and renewable energy sources throughout the state. All of these educational public facilities host a variety of special events and school groups throughout the year.

### Exhibits are located at:

Connecticut Science Center (Hartford) – Energy City Gallery

The Discovery Museum (Bridgeport) – Energy Exhibit

The SmartLiving™ Center (Orange) – 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™ Exhibit

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



Projects created by local art camp students from Cindy Stevens Fine Art project at the SmartLiving™ Center in Orange.

## SEMINARS AND EVENTS

Energy Efficiency Fund events reach every type of energy consumer.

### Sample activities in 2012 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

Energy industry conference participation including the American Council for an Energy-Efficient Economy, ENERGY STAR® Partner meetings, American Comfort Institute, American Institute of Architects, Association of Energy Engineers, Customer Service (CS) Week, 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, Connecticut Conference of Municipalities annual conference, home shows, senior fairs, library events, social agency forums, school fairs, Earth Day events, Family Science Day, eesmarts events and forums, Connecticut Science Fair, Technical High School E-House opening, and museum events



(From left to right) Nicholas and Paul Lehto, co-principals of Lehto Design/Build with Enoch Lenge of CL&P receive the "Residential Green Builder" award from Business New Haven.

## HOME ENERGY REPORTS

In 2011, 24,000 randomly selected CL&P customers and 6,000 UI customers received a customized report that detailed their home's energy use compared to "neighbors" with similar-sized homes within a one- to two-mile radius. The UI pilot concluded in 2011. In July 2012, 7,000 of the original 24,000 CL&P customers were selected to participate in the pilot program again and 10,000 new CL&P customers were also added. The enlistment of repeat customers will provide valuable information to compare customer participation levels and persistence of energy-saving results from the first year to the second year of the pilot. All participants receive monthly personalized energy use reports and have the option to access additional and interactive energy information through an online portal. The reports and portal also include energy-saving tips and positive reinforcement to encourage energy conservation and to install energy-efficient technologies.

## CLEAN ENERGY COMMUNITIES

In 2012, the Energy Efficiency Fund and the Clean Energy Finance and Investment Authority (CEFIA) worked together to reinvigorate and energize the award-winning Clean Energy Communities program. Initially a program that focused on supporting the use of renewable energy, the Clean Energy Communities program evolved in 2012 to include the Energy Efficiency Fund's existing eeCommunities program – incorporating energy efficiency in municipal buildings and in community-wide efforts into the new joint program.

Unveiled at an April 2012 forum on energy hosted by the Connecticut Conference of Municipalities, the Clean Energy Communities program's expansion asks the 169 municipalities across the state to renew their commitment or to pledge for the first time to support renewable energy and energy efficiency. Cities and towns will now pledge to reduce their municipal building energy consumption incrementally to reach a 20 percent reduction by 2018, and to purchase 20 percent of their municipal electrical needs from renewable sources by 2018 – a holistic energy approach committed to by 31 Connecticut municipalities in 2012.



Enfield Clean Energy Chairman Jeff Myjak looks over data with a technician during a Home Energy Solutions assessment at his home. (Photo by Jeff Hanouille, Enfield Press)

Through participation in energy-saving programs offered by the Energy Efficiency Fund and renewable energy programs through CEFIA, a community can earn points toward rewards. For example, when residents or businesses in a town or city sign up to receive a Home Energy Solutions assessment, enroll in the CTCleanEnergyOptions<sup>SM</sup> program, install a clean energy system, or participate in a commercial or industrial program such as Small Business Energy Advantage, they earn points for their community.

Points earned through participation in Energy Efficiency Fund programs will result in a "Bright Idea Grant" ranging from \$5,000 to \$15,000 that can be used toward a community-selected energy-saving project, such as hiring an energy auditor to assess/benchmark municipal buildings or to leverage existing funds to make energy-saving improvements to a school. Renewable energy points will earn a community a clean energy system equivalent to a 1 kilowatt solar photovoltaic system.

In 2012, CL&P and UI program administrators launched community-wide campaigns to encourage businesses, residents, schools and municipalities to participate in Energy Efficiency Fund programs. HES and HES-IE campaigns were launched in the towns of Bloomfield, Bridgeport, Madison, Newtown and North Haven in partnership with the clean energy task forces, municipalities and HES vendors. Performance-based partnerships were also established with First Calvary Church, Shiloh Baptist Church and the Interreligious Eco-Justice Network's Cool Congregations Challenge.



First Selectman Herbst signs Trumbull pledge with Energy Efficiency Board members Pat McDonnell of UI and Jamie Howland of Environment Northeast.



Town of Bloomfield and Clean Energy Communities program celebrate raising \$7,725 for the Bloomfield Fuel Bank with a successful Home Energy Solutions campaign. From left: Craig Frenkel of Lantern Energy, Lomont White of CL&P, Paul Keyes of Victory Energy Solutions, Camilla Jones, Bloomfield Dept. of Social & Youth Services, Doug Cahill of Competitive Resources, Inc., Brent Borgine of New England Conservation Services and Rebecca Meyer of CL&P.

### 2012 SIGNED OR RESIGNED MUNICIPALITIES

Ansonia	Durham	Madison	Plainville	West Hartford
Beacon Falls	East Haven	Milford	Plymouth	West Haven
Bethany	Easton	Monroe	Portland	Woodbridge
Bloomfield	Fairfield	Newtown	Somers	
Bridgeport	Guilford	North Branford	Southbury	
Bristol	Hamden	North Haven	Stafford	
Cornwall	Hampton	Orange	Trumbull	

# Business Energy Solutions

## SMALL BUSINESS ENERGY ADVANTAGE

The small business program continues to provide a competitive solution to a growing number of businesses throughout Connecticut. In 2012 we also more than satisfied our mission to move beyond lighting-only projects. In 2012, 351 projects were designated as comprehensive – meaning that upgrades were made to a combination of several technologies, including lighting, refrigeration, motor controls and natural gas efficiency. This is an increase from 180 comprehensive projects in 2011.

Natural gas energy efficiency measures were added to the small business program incentive structure in 2012 and gas-specific training was offered to utility-authorized small business contractors. Interest-free financing for natural gas measures was also a program enhancement in 2012.



*“The store is much brighter now – the LEDs are amazing. Saving money was the most important aspect and the incentives we received really helped towards that.”*

Mazen Bahri, Manager  
Clinton Market, llc, Mystic



*“After reviewing the proposal and seeing the estimated savings, as a business owner, the decision was a no-brainer. The process was easy, with no upfront costs and 30 percent savings after two years – yes, I’m happy.”*

Len Yanavich,  
Creative Director and Owner  
Rimage Spa and Salon, New Haven

### CLINTON MARKET, LLC Comprehensive Measures Include

Five locations, Mystic, Branford, Guilford, Clinton and Westbrook received:

Light-Emitting Diodes (LED) lighting and lighting controls

Refrigerator LED lighting

Electronically commutated motor controls

Evaporator fan controls

Refrigerator door heater controls

### Estimated Annual Savings

Total for all locations:

Total Cost: \$206,953

Energy Efficiency Fund Incentives: \$85,325

Customer Cost: \$121,628, financed with 0% SBEA loan

223,298 kilowatt-hours saved annually

\$35,500 saved annually

### RIMAGE SPA AND SALON Comprehensive Measures Include

CFL lighting

LED lighting

Domestic hot water pipe insulation

Heating duct insulation

### Estimated Annual Savings

Total Cost: \$13,499

Energy Efficiency Fund Incentive: \$6,374

Customer Cost: \$7,134, financed with 0% SBEA loan over 24 months

17,062 kilowatt-hours saved annually

849 ccf natural gas saved annually

\$4,132 saved annually

## 2012 SMALL BUSINESS ENERGY ADVANTAGE PROGRAM



### Businesses Served

1,821



### CO<sub>2</sub> Emissions Reduced

18,376 Tons (Annual)



### Annual Savings

\$4.7 Million



### Lifetime Savings

\$57.7 Million



### MMBTUs

Annual

127.5 Thousand

Lifetime

1.6 Million



### Energy Savings

kWh Annual

35.3 Million

kWh Lifetime

433.3 Million

(kWh = Electricity, CCF = Natural Gas)

CCF Annual

69.5 Thousand

CCF Lifetime

861.1 Thousand

## NEW CONSTRUCTION | NEW EQUIPMENT

Program: Energy Conscious Blueprint

In 2012, 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.

This prescriptive approach is effective for many types of facilities, but for certain complex buildings with aggressive performance targets, a "whole building performance" option was initiated in 2012. For those participants, savings are expressed as a percentage improvement over the baseline building code, measured by total energy cost savings from all sources.

In 2012, CL&P and UI's market segment analysis showed that most new construction projects were happening in the retail segment, especially with chain stores. Government facilities and public schools were also active participants. Manufacturers were the leaders for process efficiency improvements, with compressors, air dryers, and plastic injection molding machines at the top of the list.



*"With the help of the incentive, we were able to install the more efficient ammonia-based rink that will reduce our power consumption while preserving our vital capital for what matters most – better athletic equipment for the kids and more of it!"*

Mike Braito, Senior Vice President  
Chelsea Piers, Stamford



*"Building a craft brewery in a 100-year old brick building in Connecticut requires implementing strategies that make sense now and in the future. Energy-efficient technologies will allow us to reach our business and environmental goals."*

Peter E. Doering, CFO & COO  
Two Roads Brewing Company

TWO ROADS BREWING COMPANY Measures Included
2 Air compressors
Refrigeration system
Refrigerated air dryer
Steam boiler
Radiant heating system
Estimated Annual Savings
Energy Efficiency Fund Incentive: \$241,884
182,026 kilowatt-hours saved annually
124,627 ccf natural gas saved annually
\$185,548 saved annually

CHELSEA PIERS Measures Included
High efficiency ammonia ice rink refrigeration plant
Energy-efficient lighting throughout
Estimated Annual Savings
Energy Efficiency Fund Incentive: \$295,222
1,979,000 kilowatt-hours saved annually
\$296,841 saved annually

### 2012 NEW CONSTRUCTION & EQUIPMENT



**Businesses Served**  
1,004



**CO<sub>2</sub> Emissions Reduced**  
27,083 Tons (Annual)



**Annual Savings**  
\$6.1 Million



**Lifetime Savings**  
\$90.4 Million



**MMBTUs**

<b>Annual</b>	<b>Lifetime</b>
245.4 Thousand	3.6 Million



**Energy Savings** (kWh = Electricity, CCF = Natural Gas)

<b>kWh Annual</b>	<b>CCF Annual</b>
41.1 Million	1.0 Million
<b>kWh Lifetime</b>	<b>CCF Lifetime</b>
615.2 Million	14.7 Million

# Business Energy Solutions

## BUSINESS AND ENERGY SUSTAINABILITY

Programs: Energy Opportunities | Operations & Maintenance Services | Retro Commissioning | Process Reengineering for Increased Manufacturing Efficiency | Business Sustainability Challenge

*“The Energy Efficiency Fund enabled SECONN to create a more sustainable, competitive manufacturing company that is rapidly growing.”*

In 2012, 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.

This sustainable approach to energy management includes an emphasis on ongoing improvements and maintenance, education and outreach, and increased financing opportunities through support of various vehicles including performance contracting and the C-PACE program (Commercial-Property Assessed Clean Energy), initiated by legislation in 2012.

Robert J. Marelli, Jr., Owner & President  
SECONN Fabrication, Waterford

SECONN FABRICATION Measures Included
LEAN manufacturing training
Lighting and lighting controls
Variable frequency drive motors
Estimated Annual Savings
Energy Efficiency Fund Incentives: \$86,727 (since 2005)
277,046 kilowatt-hours saved annually
\$41,000 saved annually



THE LIGHTING QUOTIENT Measures Included
HVAC upgrades
LEAN manufacturing training
Estimated Annual Savings
50,997 kilowatt-hours saved annually
\$9,179 saved annually

*“There’s a large educational aspect to all of this, and it’s important to get local businesses engaged in energy-efficient products and solutions. Our utility educated us and worked with us to help our business operate more sustainably, and we do the same for businesses we work with. It’s a win-win partnership.”*

Allison Walker, Chairman, CEO,  
The Lighting Quotient



## 2012 BUSINESS AND ENERGY SUSTAINABILITY



**Businesses Served**  
1,491



**CO<sub>2</sub> Emissions Reduced**  
61,741 Tons (Annual)



**Annual Savings**  
\$15.1 Million



**Lifetime Savings**  
\$172.3 Million



**MMBTUs**  
Annual: 477.6 Thousand  
Lifetime: 5.3 Million



**Energy Savings** (kWh = Electricity, CCF = Natural Gas)  
kWh Annual: 109.2 Million  
kWh Lifetime: 1.2 Billion  
CCF Annual: 1.0 Million  
CCF Lifetime: 10.0 Million

## BUSINESS AND ENERGY SUSTAINABILITY



HARTFORD PUBLIC LIBRARY Measures Included
Chilled water pump operational strategies with differential pressure control
Optimize air handler operations
Modify constant volume air handling system operation
Automate and optimize snow melt system
Estimated Annual Savings
Energy Efficiency Fund Incentives: \$23,438
892 MMBTUs saved annually
492,284 kilowatt-hours saved annually
\$103,333 (from electricity and steam) saved annually

*“One of our biggest energy efficiency obstacles was not having control over the building’s HVAC system during non-business hours. We were able to significantly upgrade our control system, providing a more comfortable, efficient, and cost-effective program to keep the library at optimal temperatures throughout the day.”*

Ted Sheiber, Hartford Public Library  
Facilities Manager

*“UTC Aerospace Systems has benefitted significantly as a long-time participant in multiple energy efficiency programs. Working with our utility we’ve identified available incentive funds through resources such as the Energy Efficiency Fund and CEFIA to help improve the return on investment, enabling capital improvements that otherwise may not have been possible. Recently we’ve entered into the Strategic Energy Management (SEP) partnership designed to help us further optimize our participation in the incentive programs. Energy reduction remains a significant component of our utility strategy, our carbon footprint reduction goals, and our overall plan to sustain a competitive business posture.”*

Nick Balboni, P.E – Facility Engineering  
Manager, UTC Aerospace Systems



UTC AEROSPACE SYSTEMS Measures Included
Supply air temperature reset
Optimize air handler operations
Modify constant volume air handling system operation
Correction of simultaneous heating and cooling

Estimated Annual Savings
Energy Efficiency Fund Incentives: \$48,314
927,745 kilowatt-hours saved annually
28,960 ccf natural gas saved annually
\$137,686 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 2012 resulted in

**avoided emissions of**

**2,272,572**

**tons of carbon dioxide,  
equivalent to removing**

**345,786**

**cars off the road for a year.**

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

Air Emissions	Annual Savings 2012			Lifetime Savings 2012		
	Electric	Natural Gas	Fuel Oil & Propane	Electric	Natural Gas	Fuel Oil & Propane
<b>SO<sub>x</sub> Tons</b>	16	—	—	159	—	—
<b>NO<sub>x</sub> Tons</b>	31	—	—	317	—	—
<b>CO<sub>2</sub> Tons</b>	164,022	21,910	14,595	1,661,574	321,506	289,492



# 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 and the Connecticut Municipal Electric Energy Cooperative (CMEEC).

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
Andover	\$31,846	55,665	679,028	4	0	0	1,321	24,268	\$13,361	\$194,204	45
Ansonia	\$178,587	533,017	5,926,618	47	12,409	207,051	4,859	102,765	\$106,928	\$1,441,761	409
Ashford	\$34,375	100,012	1,164,273	6	0	0	1,339	26,749	\$19,529	\$267,869	67
Avon	\$441,073	1,546,052	19,249,990	209	11,089	193,046	8,600	166,457	\$264,732	\$3,531,020	962
Barkhamsted	\$55,466	131,549	1,613,064	7	0	0	980	17,016	\$22,784	\$294,700	80
Beacon Falls	\$98,866	177,003	2,115,796	46	1,268	25,149	3,440	69,617	\$40,126	\$597,575	141
Berlin	\$887,758	4,281,568	34,769,161	567	24,773	526,100	3,904	75,266	\$647,958	\$5,638,685	2,379
Bethany	\$123,430	259,209	3,137,371	52	0	0	4,484	89,795	\$55,178	\$803,243	189
Bethel	\$298,128	1,138,491	14,427,341	174	1,149	19,486	5,729	122,588	\$186,212	\$2,516,506	658
Bethlehem	\$18,307	25,397	283,512	2	0	0	1,319	20,163	\$9,012	\$122,219	30
Bloomfield	\$816,709	3,688,557	28,395,739	409	26,744	478,886	17,102	337,621	\$618,974	\$5,776,255	2,258
Bolton	\$76,122	139,334	1,228,336	10	56	1,120	3,001	52,419	\$32,265	\$387,918	110
Bozrah	\$145,000	715,719	6,380,736	65	0	0	0	0	\$102,014	\$888,620	364
Branford	\$540,375	1,740,457	18,933,264	293	15,599	288,105	8,277	181,939	\$295,565	\$3,647,112	1,086
Bridgeport	\$2,645,442	7,524,219	71,560,684	924	207,357	3,227,617	27,034	533,062	\$1,366,502	\$15,171,484	5,433
Bridgewater	\$22,676	26,166	270,311	2	0	0	1,660	35,105	\$10,523	\$181,867	35
Bristol	\$973,862	3,759,078	34,441,375	469	12,218	195,750	17,828	331,838	\$618,093	\$6,310,109	2,211
Brookfield	\$534,183	6,095,326	37,259,064	618	8,177	148,891	5,406	107,994	\$896,901	\$5,747,136	3,217
Brooklyn	\$239,726	165,436	2,016,637	14	4,363	109,064	2,321	43,056	\$36,604	\$553,014	139
Burlington	\$83,849	108,505	1,312,145	19	0	0	4,960	103,475	\$35,029	\$589,031	116
Canaan	\$130,397	493,417	5,630,776	33	0	0	1,188	27,078	\$75,222	\$895,654	267
Canterbury	\$19,691	20,653	240,222	6	0	0	1,340	29,011	\$8,067	\$144,513	26
Canton	\$321,411	1,945,723	13,839,731	236	2,854	52,212	4,478	86,889	\$297,967	\$2,328,541	1,065
Chaplin	\$24,114	50,252	584,272	4	0	0	645	13,333	\$9,818	\$136,263	34
Cheshire	\$1,075,136	2,641,091	30,266,625	587	78,705	1,246,711	16,070	324,469	\$510,992	\$6,691,243	2,023
Chester	\$115,728	259,236	3,262,185	50	0	0	2,256	45,867	\$46,224	\$643,076	161
Clinton	\$124,036	444,014	4,379,105	74	915	16,091	3,862	79,199	\$79,560	\$943,351	280
Colchester	\$235,995	534,739	6,898,826	65	0	0	7,782	148,445	\$106,464	\$1,533,162	365
Colebrook	\$19,686	39,039	434,723	5	0	0	123	2,467	\$6,072	\$70,698	21
Columbia	\$59,339	231,102	2,740,354	33	0	0	1,239	22,639	\$37,953	\$473,054	133
Cornwall	\$21,175	51,786	537,607	5	0	0	603	11,068	\$9,755	\$119,323	34
Coventry	\$176,265	231,013	2,974,880	23	0	0	4,005	78,224	\$48,792	\$725,152	167
Cromwell	\$291,879	1,181,858	8,764,776	130	21,978	205,698	2,612	48,585	\$198,466	\$1,610,332	768
Danbury	\$1,614,126	8,040,101	70,708,952	1,053	73,820	1,136,535	12,517	252,577	\$1,260,989	\$11,927,560	4,694
Darien	\$315,853	721,525	8,652,890	130	1,292	19,199	8,756	173,583	\$138,574	\$1,908,951	482
Deep River	\$145,196	412,551	5,840,457	207	0	0	3,805	74,736	\$73,982	\$1,112,499	257
Derby	\$269,460	2,351,011	15,009,335	254	1,252	25,471	1,420	24,130	\$342,021	\$2,213,273	1,223
Durham	\$145,878	238,424	2,395,505	40	0	0	7,027	128,533	\$61,979	\$846,184	208
East Granby	\$181,234	486,275	5,406,109	67	214	3,438	2,403	43,699	\$79,302	\$934,819	280
East Haddam	\$65,169	100,081	1,103,125	10	0	0	3,832	71,704	\$29,982	\$448,458	101
East Hampton	\$137,005	214,946	2,244,860	42	0	0	8,310	156,871	\$63,164	\$923,606	209
East Hartford	\$1,183,613	3,958,352	48,919,319	248	34,502	582,511	17,441	334,837	\$665,363	\$8,711,459	2,445
East Haven	\$563,059	2,416,351	18,875,493	237	28,906	529,921	5,388	103,793	\$391,994	\$3,549,620	1,474
East Lyme	\$664,437	771,313	10,931,456	207	101	2,400	5,623	117,192	\$130,878	\$1,955,284	455
East Windsor	\$587,620	1,224,121	13,302,928	117	15,078	232,839	3,599	72,342	\$202,058	\$2,358,599	758
Eastford	\$12,404	20,850	220,003	4	0	0	405	8,363	\$4,609	\$64,926	16
Easton	\$77,832	102,477	1,085,901	28	2,210	42,088	3,401	68,391	\$29,716	\$456,032	106
Ellington	\$185,236	427,905	4,910,302	45	3,037	56,301	4,851	93,459	\$83,121	\$1,109,529	297
Enfield	\$1,685,739	10,668,076	95,862,295	1,379	40,843	624,116	18,637	385,037	\$1,632,825	\$15,506,611	5,919
Essex	\$147,976	324,565	3,923,830	32	56	1,120	1,905	34,211	\$53,814	\$681,773	189
Fairfield	\$1,264,767	5,464,511	49,723,088	519	43,941	797,641	14,816	287,939	\$877,363	\$8,829,455	3,234
Farmington	\$1,089,747	4,296,681	47,387,993	650	121,316	1,274,891	10,601	210,195	\$761,629	\$8,621,448	3,050

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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
Franklin	\$47,081	166,855	2,261,057	2	0	0	780	10,055	\$26,992	\$356,284	95
Glastonbury	\$989,279	3,190,409	26,050,998	445	36,122	598,741	14,853	282,939	\$545,786	\$5,319,924	2,026
Goshen	\$19,008	40,387	458,005	6	0	0	781	15,474	\$8,939	\$127,218	31
Granby	\$88,553	163,820	1,918,961	34	0	0	3,727	64,300	\$38,267	\$525,002	130
Greenwich	\$1,277,099	3,239,923	38,229,116	563	47,296	821,111	7,678	155,011	\$534,117	\$6,708,486	2,030
Griswold	\$116,759	337,426	4,409,431	24	0	0	1,254	24,667	\$53,022	\$711,630	187
Groton	\$1,145,429	4,095,003	41,727,819	456	33,556	418,485	448	9,197	\$615,150	\$6,239,928	2,293
Guilford	\$547,072	1,148,858	13,352,917	161	4,672	96,042	12,959	271,196	\$220,656	\$3,054,828	779
Haddam	\$122,667	244,784	3,186,971	32	0	0	3,367	65,791	\$48,456	\$709,392	167
Hamden	\$1,223,309	3,965,116	34,959,972	484	59,593	1,080,304	20,847	413,437	\$702,934	\$7,568,685	2,647
Hampton	\$12,783	6,415	35,494	1	0	0	1,707	32,149	\$7,865	\$135,730	25
Hartford	\$3,462,554	9,926,964	133,512,235	1,229	261,350	3,204,729	13,281	252,051	\$1,700,203	\$22,623,369	6,804
Hartland	\$7,891	8,391	48,311	1	141	2,488	377	6,688	\$2,874	\$36,585	10
Harwinton	\$56,474	68,009	864,991	9	0	0	2,276	41,331	\$18,564	\$280,884	62
Hebron	\$108,134	149,793	1,664,346	14	91	1,811	3,987	67,030	\$37,366	\$501,793	126
Kent	\$23,731	51,412	559,853	11	0	0	788	16,569	\$10,453	\$143,857	36
Killingly	\$329,977	1,543,129	13,121,892	173	1,511	21,779	5,304	89,713	\$242,697	\$2,209,234	862
Killingworth	\$47,151	80,035	809,326	11	0	0	1,776	31,273	\$18,563	\$239,044	63
Lebanon	\$106,610	1,208,942	17,687,549	323	0	0	2,794	50,724	\$183,163	\$2,659,524	649
Ledyard	\$310,196	1,905,612	22,541,999	235	0	0	2,925	52,846	\$283,579	\$3,356,412	1,008
Lisbon	\$148,257	1,320,125	7,417,497	163	0	0	502	8,545	\$190,227	\$1,068,185	679
Litchfield	\$306,754	1,455,049	18,270,985	243	139	2,494	6,399	135,138	\$233,041	\$3,086,936	821
Lyme	\$18,329	25,150	346,153	4	0	0	446	8,366	\$5,387	\$81,992	18
Madison	\$364,105	568,549	5,385,382	98	17,105	239,770	13,659	247,907	\$150,728	\$1,966,592	562
Manchester	\$2,095,413	9,281,589	68,613,730	1,174	145,163	1,948,558	18,687	392,880	\$1,527,669	\$12,987,134	5,843
Mansfield	\$1,063,991	4,786,691	44,035,433	839	7,560	114,421	5,878	108,232	\$712,237	\$6,669,810	2,555
Marlborough	\$48,620	75,798	949,962	11	0	0	2,387	40,785	\$19,994	\$288,265	67
Meriden	\$855,978	1,601,281	19,052,966	222	41,098	742,494	16,787	336,627	\$333,343	\$4,727,755	1,280
Middlebury	\$196,038	474,984	5,966,191	63	250	4,474	4,551	90,613	\$86,237	\$1,199,708	301
Middlefield	\$59,526	129,516	1,643,953	8	387	5,690	2,180	41,144	\$27,428	\$397,995	95
Middletown	\$1,956,905	5,188,096	56,450,898	450	101,542	1,561,378	17,254	337,203	\$899,675	\$10,699,653	3,477
Milford	\$1,020,852	6,223,326	58,286,189	703	37,667	684,592	9,817	189,520	\$960,143	\$9,526,514	3,521
Monroe	\$160,920	349,592	3,929,844	72	3,213	63,679	4,413	79,869	\$70,795	\$935,270	255
Montville	\$583,416	2,020,840	17,804,216	212	1,191	26,283	1,789	32,791	\$296,289	\$2,637,135	1,059
Morris	\$42,561	104,881	1,288,028	19	0	0	2,104	41,287	\$22,329	\$320,824	74
Naugatuck	\$643,444	1,477,322	15,818,095	296	23,731	392,178	13,398	260,530	\$286,199	\$3,634,202	1,067
New Britain	\$1,440,556	5,729,483	60,598,359	808	152,268	1,713,141	7,581	140,911	\$982,120	\$10,617,464	3,934
New Canaan	\$690,064	1,203,149	12,364,112	166	6	31	8,592	173,026	\$206,806	\$2,433,005	724
New Fairfield	\$95,903	145,653	1,764,227	19	0	0	5,599	115,970	\$43,280	\$713,325	144
New Hartford	\$154,902	1,282,422	7,071,208	117	0	0	3,126	52,327	\$195,076	\$1,189,025	691
New Haven	\$3,018,345	7,416,079	90,932,465	1,150	265,977	3,821,664	35,788	730,223	\$1,438,953	\$19,236,507	5,845
New London	\$1,099,834	1,667,882	19,747,854	194	69,476	1,414,127	2,973	57,112	\$311,110	\$4,302,390	1,306
New Milford	\$393,031	2,003,564	18,513,309	245	0	0	7,901	153,307	\$317,500	\$3,197,749	1,120
Newington	\$819,166	4,230,814	45,602,662	632	24,926	380,021	5,495	109,747	\$647,652	\$7,157,519	2,376
Newtown	\$557,582	1,859,609	22,332,879	308	2,185	40,705	17,191	340,752	\$337,058	\$4,538,753	1,180
Norfolk	\$20,422	30,372	321,713	1	0	0	1,952	44,792	\$12,277	\$227,451	40
North Branford	\$70,207	123,584	1,387,468	16	116	2,278	2,683	48,609	\$28,318	\$387,403	96
North Canaan	\$14,685	33,864	393,607	2	0	0	318	7,505	\$6,121	\$85,458	21
North Haven	\$788,729	3,612,041	35,680,160	416	42,707	663,384	7,328	142,470	\$582,257	\$6,167,790	2,190
North Stonington	\$120,644	319,351	4,014,907	41	0	0	1,391	25,948	\$50,829	\$658,025	179
Norwalk	\$2,136,137	14,529,559	96,812,674	1,459	88,420	686,147	19,331	400,124	\$2,226,360	\$15,719,565	8,173
Norwich	\$1,165,990	3,313,675	36,118,986	360	0	0	0	0	\$472,311	\$5,030,150	1,687
Old Lyme	\$82,060	137,078	1,691,048	16	0	0	4,048	79,204	\$34,806	\$530,796	116
Old Saybrook	\$640,395	4,772,864	59,851,478	723	7,123	108,448	3,098	50,918	\$698,483	\$8,630,884	2,509
Orange	\$395,101	2,482,051	19,323,936	289	15,537	241,670	7,975	163,846	\$397,688	\$3,528,880	1,448
Oxford	\$150,263	306,551	3,926,051	63	372	4,520	5,439	107,184	\$65,598	\$976,757	225
Plainfield	\$205,168	429,683	5,510,834	37	4,701	71,467	3,019	51,544	\$77,484	\$1,039,672	285
Plainville	\$621,982	2,501,171	23,650,979	193	15,077	213,169	5,886	114,173	\$393,361	\$3,949,538	1,438

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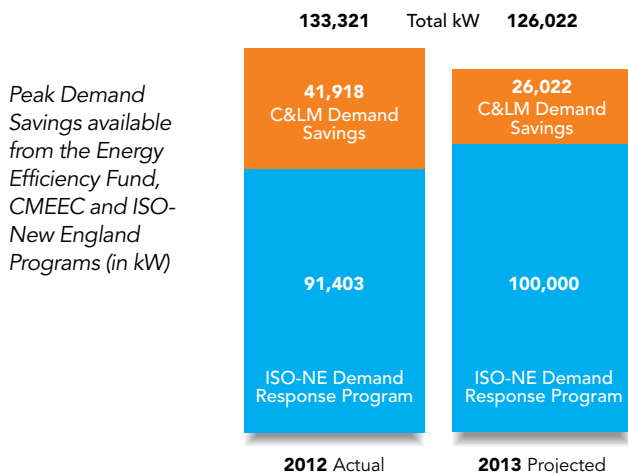
Town	Energy Incentives	Annual kWh Savings	Lifetime kWh Savings	Peak Demand kW	Annual CCF Savings	Lifetime CCF Savings	Annual Gallons (Oil & Propane)	Lifetime Gallons (Oil & Propane)	Annual Dollars Saved	Lifetime Dollars Saved	Annual CO <sub>2</sub> (Tons) Saved
Plymouth	\$148,353	327,195	4,348,968	34	571	9,746	4,067	84,137	\$63,585	\$955,836	222
Pomfret	\$148,534	114,598	1,542,403	11	20,606	309,096	1,827	33,166	\$41,508	\$630,753	204
Portland	\$583,444	577,274	7,955,046	84	918	16,914	9,982	192,720	\$123,642	\$1,907,392	427
Preston	\$70,162	170,737	2,188,734	11	0	0	418	5,299	\$26,055	\$326,634	92
Prospect	\$237,122	338,034	4,039,616	51	28,400	427,253	5,347	110,620	\$94,725	\$1,407,684	410
Putnam	\$150,176	590,584	5,212,570	92	1,896	32,270	2,263	39,496	\$95,027	\$916,193	341
Redding	\$190,324	415,532	4,678,350	75	0	0	8,695	174,165	\$94,614	\$1,361,139	323
Ridgefield	\$647,350	3,019,586	33,314,048	289	2,487	47,492	27,652	579,898	\$544,677	\$7,037,094	1,904
Rocky Hill	\$489,200	1,506,789	15,522,557	178	25,538	448,013	2,904	60,114	\$249,257	\$2,827,521	959
Roxbury	\$17,395	27,409	453,130	5	0	0	1,358	28,035	\$9,283	\$174,296	31
Salem	\$33,658	64,178	1,164,052	9	0	0	904	18,396	\$12,870	\$237,849	44
Salisbury	\$67,567	173,120	1,850,769	8	22	109	993	22,804	\$28,784	\$351,736	101
Scotland	\$6,604	9,767	92,486	1	0	0	352	5,956	\$2,839	\$37,399	10
Seymour	\$343,591	803,240	9,074,297	119	12,836	165,244	14,903	302,745	\$186,329	\$2,649,378	676
Sharon	\$145,155	179,679	2,879,369	13	6,082	60,820	644	11,934	\$33,401	\$502,679	135
Shelton	\$584,920	1,517,367	17,757,301	137	16,497	209,337	14,464	280,994	\$290,075	\$3,819,968	1,059
Sherman	\$40,046	49,404	615,892	11	0	0	1,791	35,360	\$14,051	\$223,449	47
Simsbury	\$461,209	1,293,766	15,424,366	163	19,741	246,048	13,391	255,510	\$254,476	\$3,378,439	940
Somers	\$167,650	414,641	5,220,228	66	0	0	5,114	98,866	\$79,736	\$1,125,777	276
South Windsor	\$1,136,908	3,389,889	49,308,072	407	20,590	394,022	7,967	159,053	\$533,971	\$7,886,490	1,953
Southbury	\$601,287	1,366,477	17,638,386	158	4,784	73,880	7,507	139,146	\$229,674	\$3,093,595	821
Southington	\$1,495,015	5,345,494	49,308,548	592	37,463	626,638	14,048	284,109	\$851,078	\$8,585,960	3,122
Sprague	\$20,640	21,001	182,320	3	386	2,608	752	14,513	\$6,426	\$87,544	23
Stafford	\$303,655	1,257,465	16,447,000	134	0	0	3,690	58,199	\$194,263	\$2,528,047	688
Stamford	\$3,220,170	12,091,737	144,678,343	1,317	117,708	1,694,315	15,968	317,760	\$1,892,480	\$23,026,914	7,072
Sterling	\$9,151	7,391	52,725	1	0	0	726	14,432	\$4,041	\$66,759	13
Stonington	\$375,401	1,148,669	13,544,419	123	278	5,209	5,537	109,096	\$186,591	\$2,338,010	658
Stratford	\$2,333,976	7,140,837	68,215,781	767	347,271	4,461,923	13,800	270,181	\$1,380,521	\$14,769,829	5,907
Suffield	\$884,676	2,024,902	24,810,466	316	21,236	239,817	5,809	114,424	\$329,820	\$4,123,326	1,228
Thomaston	\$317,527	640,311	7,543,391	179	15,528	179,187	4,189	91,195	\$122,066	\$1,590,985	473
Thompson	\$140,171	355,914	4,301,321	31	0	0	1,471	25,896	\$56,640	\$703,437	200
Tolland	\$163,153	379,089	4,419,484	48	133	2,752	4,971	88,266	\$73,839	\$964,348	255
Torrington	\$989,261	2,421,844	24,106,030	439	26,057	240,477	14,060	302,586	\$424,261	\$4,793,085	1,564
Trumbull	\$881,449	3,340,972	35,264,291	473	18,488	306,087	11,183	217,640	\$538,378	\$6,089,505	1,957
Union	\$7,041	18,665	232,364	5	0	0	295	5,351	\$3,874	\$54,392	13
Vernon	\$564,989	1,389,200	16,412,878	235	8,698	126,057	9,339	191,256	\$243,851	\$3,186,416	880
Voluntown	\$109,044	227,026	3,232,361	12	0	0	580	11,727	\$34,748	\$498,439	123
Wallingford	\$2,507,502	7,046,073	80,391,560	1,026	42,284	675,900	0	0	\$1,041,612	\$11,826,844	3,843
Warren	\$8,569	12,475	104,217	1	0	0	483	8,832	\$3,703	\$50,062	12
Washington	\$69,656	207,982	2,450,416	41	0	0	3,428	73,311	\$43,017	\$628,653	147
Waterbury	\$2,587,291	12,779,494	103,925,440	1,497	105,921	1,851,294	39,989	848,161	\$2,078,994	\$19,681,875	7,664
Waterford	\$541,272	4,382,867	27,080,721	466	253	4,831	6,950	146,612	\$652,966	\$4,367,739	2,321
Watertown	\$337,509	978,322	12,374,026	181	12,440	107,905	8,269	170,189	\$184,053	\$2,516,798	679
West Hartford	\$2,453,889	8,231,973	72,079,336	1,047	150,097	1,894,111	17,396	348,936	\$1,376,754	\$13,231,723	5,320
West Haven	\$1,041,862	2,250,882	28,430,863	283	65,134	1,405,231	17,475	351,650	\$449,858	\$6,710,078	1,764
Westbrook	\$211,525	606,170	8,612,211	67	5,037	94,679	1,917	33,967	\$98,288	\$1,419,092	362
Weston	\$267,738	412,280	4,752,100	84	7,615	124,747	14,129	284,247	\$121,714	\$1,904,625	430
Westport	\$894,370	1,158,029	11,893,436	203	30,058	495,244	40,295	830,561	\$354,034	\$5,465,381	1,278
Wethersfield	\$836,460	935,797	10,680,393	221	63,954	1,386,115	8,009	158,418	\$222,697	\$3,431,599	966
Willington	\$108,321	982,213	12,473,653	137	0	0	1,263	24,131	\$145,177	\$1,836,301	516
Wilton	\$719,881	2,641,142	32,597,810	409	938	16,066	22,821	458,270	\$470,582	\$6,428,315	1,644
Winchester	\$157,250	401,576	5,079,318	59	5,007	109,524	2,424	52,566	\$71,634	\$1,026,041	266
Windham	\$497,753	2,672,326	19,240,258	322	11,442	135,413	9,130	165,867	\$427,996	\$3,478,182	1,546
Windsor	\$954,253	2,814,746	31,785,408	286	41,470	770,651	13,120	263,737	\$490,521	\$6,204,886	1,848
Windsor Locks	\$957,594	10,419,190	144,324,191	2,495	33,643	313,781	2,712	48,966	\$1,525,936	\$20,594,008	5,544
Wolcott	\$167,286	284,858	3,474,453	44	83	1,508	9,430	185,465	\$78,189	\$1,224,059	262
Woodbridge	\$361,470	643,781	8,927,710	127	27,171	543,305	4,627	96,332	\$134,591	\$2,143,396	551
Woodbury	\$289,513	609,091	8,219,436	36	43	514	6,617	136,549	\$113,755	\$1,700,425	395
Woodstock	\$141,294	432,375	4,613,468	51	33	683	2,487	49,291	\$71,582	\$841,256	251

# 2012 – ACTUAL SPENDING / 2013 BUDGET

Conservation and Load Management Programs	2012 Actuals Electric	2013 Plan Electric	2012 Actuals Natural Gas	2013 Plan Natural Gas
<b>RESIDENTIAL</b>				
Residential Retail Products	\$ 9,260,812	\$ 6,257,699	\$ —	\$ —
Residential New Construction	1,594,845	1,397,217	864,936	2,378,549
Home Energy Solutions (HVAC, Duct Sealing, Lighting)	17,511,109	12,287,302	4,470,689	4,396,175
HES Income Eligible	14,881,996	10,758,427	4,287,491	4,741,865
Water Heating	—	—	153,852	156,265
<b>Subtotal Residential</b>	<b>\$ 43,248,763</b>	<b>\$ 30,700,645</b>	<b>\$ 9,776,968</b>	<b>\$ 11,672,854</b>
<b>COMMERCIAL &amp; INDUSTRIAL</b>				
Energy Conscious Blueprint	\$ 10,688,498	\$ 10,331,026	\$ 3,859,983	\$ 3,640,000
Energy Opportunities	22,075,314	15,755,473	2,124,788	2,520,000
O&M Services, RetroCx, BSC	1,870,432	2,583,065	217,003	300,000
PRIME	619,265	637,275	—	—
Small Business Energy Advantage	14,434,523	13,198,369	164,415	400,000
<b>Subtotal C&amp;I</b>	<b>\$ 49,688,032</b>	<b>\$ 42,505,208</b>	<b>\$ 6,366,189</b>	<b>\$ 6,860,000</b>
<b>OTHER - EDUCATION</b>				
Smart Living Center - Museum Partnerships	\$ 1,045,401	\$ 2,602,165	\$ —	\$ 450,000
Clean Energy Communities	425,279	1,763,581	—	150,000
e-smarts / K-12 Education	776,383	926,825	—	—
Science Center	208,000	208,000	—	—
<b>Subtotal Education</b>	<b>\$ 2,455,063</b>	<b>\$ 5,500,571</b>	<b>\$ —</b>	<b>\$ 600,000</b>
<b>OTHER – PROGRAMS / REQUIREMENTS</b>				
Institute for Sustainable Energy (ECSU)	\$ 560,000	\$ 560,000	\$ —	\$ —
ESPC – Project Manager – Lead By Example	—	144,000	—	—
Residential Loan Program (Including ECLF & CHIF)	6,705,184	3,270,000	204,189	495,000
C&I Loan Program	726,514	635,000	—	170,000
C&LM Loan Defaults	129,604	190,000	—	—
<b>Subtotal Programs/Requirements</b>	<b>\$ 8,121,302</b>	<b>\$ 4,799,000</b>	<b>\$ 204,189</b>	<b>\$ 665,000</b>
<b>OTHER – LOAD MANAGEMENT and RD&amp;D</b>				
ISO Load Response Program	\$ 3,740,450	\$ 3,500,000	\$ —	\$ —
Research, Development & Demonstration	295,926	575,000	—	150,000
<b>Subtotal Load Management and RD&amp;D</b>	<b>\$ 4,036,376</b>	<b>\$ 4,075,000</b>	<b>\$ —</b>	<b>\$ 150,000</b>
<b>OTHER – ADMINISTRATIVE &amp; PLANNING</b>				
Administration	\$ 2,258,857	\$ 1,913,395	\$ 387,876	\$ 180,000
Marketing Plan	679,919	300,000	—	150,000
Planning and Evaluation	3,568,819	3,927,721	498,083	1,136,000
Information Technology	2,675,767	2,092,500	104,927	135,000
EEB	813,410	850,000	62,975	74,250
Performance Management Fee	8,020,312	4,790,702	—	1,077,443
<b>Admin/Planning Expenditures</b>	<b>\$ 18,017,084</b>	<b>\$ 13,874,318</b>	<b>\$ 1,053,861</b>	<b>\$ 2,752,693</b>
<b>PROGRAM SUB-TOTALS</b>				
<b>Residential</b>	<b>\$ 52,617,209</b>	<b>\$ 38,796,467</b>	<b>\$ 9,981,157</b>	<b>\$ 12,767,854</b>
<b>C&amp;I</b>	<b>\$ 54,756,320</b>	<b>\$ 47,804,957</b>	<b>\$ 6,366,189</b>	<b>\$ 7,180,000</b>
<b>Other</b>	<b>\$ 18,193,092</b>	<b>\$ 14,853,318</b>	<b>\$ 1,053,861</b>	<b>\$ 2,752,693</b>
<b>TOTAL C&amp;LM BUDGET</b>	<b>\$ 125,566,620</b>	<b>\$ 101,454,742</b>	<b>\$ 17,401,207</b>	<b>\$ 22,700,547</b>

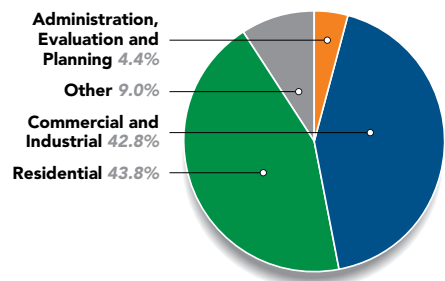
## LOAD MANAGEMENT AND PEAK DEMAND

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 DRIFE), and also reduce the federally mandated congestion charges on electric bills.



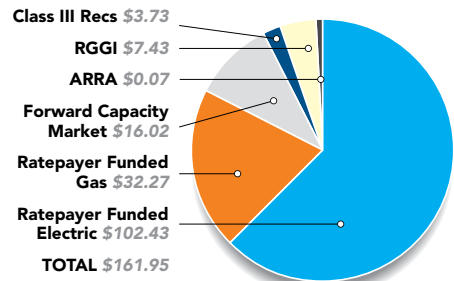
## 2012 EFFICIENCY PROGRAM SPENDING

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



## 2012 EFFICIENCY PROGRAM FUNDING

Funding for energy efficiency programs comes from many sources. Funding reflects 2012 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 provides all power requirements to these participating utilities: Town of Wallingford Department of Public 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 2012, CMEEC Member Electric Utilities (MEUs) continued their proactive work and active partnerships with their municipalities, commercial and industrial businesses, residents and limited-income 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 2012, MEUs realized annual savings of 14,748,421 kilowatt-hours and peak demand savings of 1,874 kilowatts. These savings were achieved through the delivery of a full array of efficiency programs. In total, 21,591 customers participated in the energy efficiency programs.

## SERVING RESIDENTIAL CUSTOMERS

The MEUs delivered a complete portfolio of energy efficiency programs in 2012. Residential program efforts were centered on the flagship Home Energy Savings program. The Home Energy Savings program provides comprehensive whole-house retrofit services with a number of consumer incentives to residential and limited income customers. Program measures include blower door testing and air leak sealing, duct testing and sealing, installation of compact fluorescent lightbulbs (CFLs), as well as installation of water and hot water efficiency devices and pipe insulation. CMEEC's authorized contractors and local utility personnel assist customers with the procurement of attic insulation and provide quality control and program governance. Efforts are coordinated locally with incentive offers from the natural gas companies. In 2012, MEUs provided Home Energy Savings services to 2,296 homes or residential housing units. The pilot residential loan program continued in 2012 at one of the MEUs. Residential customers may access low or no-interest loans for major energy saving measures. Plans to expand the program to additional systems in 2013 are under consideration.

In 2012, MEUs continued the distribution of CFLs using a variety of sales channels. The systems employed direct distribution through local service centers and other available community activities and organizations as well as direct mail offers. The Home Energy Savings program provides and installs CFLs at customer locations as a major component. CMEEC also continued the Negotiated Cooperative Purchase program, utilizing major chain stores and local retailers. MEUs distributed over 130,000 CFLs in 2012, bringing the total distribution to over 1,000,000 bulbs since the program began in 2006.

## COMMERCIAL & INDUSTRIAL ADVANCES

CMEEC's commercial and industrial initiatives include both prescriptive and custom elements and offer customers incentives for retrofit and new construction projects. Rebates for commercial and industrial customers included lighting, motor replacements, heating, ventilation and air conditioning (HVAC) units and air compressor upgrades. MEUs also worked closely with the largest customers on load response efforts to reduce customer peak demand.

## SMART GRID PROJECT

CMEEC's Smart Grid project continued to be a major focus for several MEUs in 2012. The project involves deploying advanced two-way meters for the majority of commercial customers as well as many residential accounts. The utilities will utilize data from these meters to enable time-differentiated rates over discrete time intervals. Thus, customers will have the opportunity to reduce electric bills by reducing electricity usage and shifting usage away from peak-demand times. As the project proceeds over the next year, energy efficiency program efforts will be integrated with Smart Grid capabilities. Taken together, these two programs offer exciting opportunities to serve customers better and help them use energy more efficiently.

## RENEWABLE PROJECTS

In 2012 MEUs continued to complete solar photovoltaic installations in conjunction with the master program management agreement with CEFIA. This agreement contributes to continuity of solar installations on a statewide basis. Several systems were installed with the largest being a 270 kilowatt system in Wallingford.

## COMMUNITY EDUCATION

In 2012 the MEUs continued to provide a grant to the Institute for Sustainable Energy (ISE) to provide extensive outreach in the MEUs communities. The purpose of the grant is to encourage the participation of town and city agencies and officials in energy efficiency-related activities and educational programs provided by the ISE. The arrangement provides comparable programs and parity with those which are currently offered throughout the state. Specific programs include ENERGY STAR® Portfolio Manager Benchmarking, training, Green Schools, and K-12 school/municipal building operators training.



## 2012 CMEEC PROGRAM HIGHLIGHTS

### CMEEC ASSISTANCE TO CUSTOMERS (ROUNDED TO \$ THOUSANDS)

This table details the incentives and rebates provided to CMEEC residential, commercial and industrial customers in 2012.







<b>Bozrah Light and Power</b>	\$ 145,000
<b>Groton Utilities</b>	918,000
<b>Jewett City Department of Public Utilities</b>	50,000
<b>Norwich Public Utilities</b>	1,157,000
<b>Norwalk Third Taxing District</b>	117,000
<b>South Norwalk Electric and Water</b>	88,000
<b>Wallingford Electric Division</b>	2,290,000
<b>TOTAL ASSISTANCE</b>	<b>\$ 4,765,000</b>

### 2012 CMEEC SUMMARY

Program	Program Budget 2012	Actual Utility Costs 2012	% of Budget Spent	Projected Annual Savings (kWh)	Annual Energy Savings (kWh)	% of Annual kWh Saved	Lifetime Savings (kWh)	2012 Projected kW Impact	Actual kW Impact	% of kW Impact Achieved	Summer Peak kW Demand Reduction
<b>Residential</b>											
<b>Home Energy Savings Program</b>	\$ 1,472,500	\$ 1,367,117	93%	2,184,441	4,221,145	193%	53,358,045	1,473	1,036	70%	251
<b>Efficient Products</b>											
<b>Lighting</b>	207,300	368,894	178%	2,107,762	3,401,608	161%	13,804,898	2,562	2,326	91%	366
<b>Appliances</b>	92,600	242,011	261%	37,017	35,380	96%	563,155	33	26	79%	26
<b>Subtotal – Residential</b>	<b>\$ 1,772,400</b>	<b>\$1,978,022</b>	<b>112%</b>	<b>4,329,220</b>	<b>7,658,133</b>	<b>177%</b>	<b>67,726,099</b>	<b>4,068</b>	<b>3,388</b>	<b>83%</b>	<b>643</b>
<b>Commercial</b>											
<b>Commercial New Construction</b>	\$ 5,200	\$ 0	0%	0	0	0%	0	0	0	0	0
<b>Prescriptive Equipment Replacement</b>	40,800	134,464	330%	24,744	425,410	1719%	5,538,983	16	108	675%	90
<b>C&amp;I Existing Facility Retrofit</b>	2,612,600	2,352,677	90%	11,001,877	6,305,581	57%	85,104,979	2,295	1,214	53%	886
<b>Subtotal – Commercial</b>	<b>\$ 2,658,600</b>	<b>\$ 2,487,141</b>	<b>94%</b>	<b>11,026,621</b>	<b>6,730,991</b>	<b>61%</b>	<b>90,643,962</b>	<b>2,311</b>	<b>1,322</b>	<b>57%</b>	<b>976</b>
<b>Renewables</b>	350,000	300,314	86%	0	359,297	0%	7,185,952	0	284	0%	255
<b>Total - All Programs</b>	<b>\$ 4,781,000</b>	<b>\$ 4,765,477</b>	<b>100%</b>	<b>15,355,841</b>	<b>14,748,421</b>	<b>96%</b>	<b>165,556,013</b>	<b>6,379</b>	<b>4,994</b>	<b>78%</b>	<b>1,874</b>

Notes: 1. Data for the Limited Income Customers is included under the Home Energy Savings Program.  
2. ARRA and RGGI funds are included under Actual Utility Costs.

### 2012 CMEEC PROGRAM HIGHLIGHTS

 <b>Customers Served</b> 21,591	 <b>Energy Savings</b> (kWh = Electricity) kWh Annual: 14.7 Million kWh Lifetime: 165.6 Million	 <b>Annual Savings</b> \$2.2 Million
 <b>MMBTUs</b> Annual: 50.3 Thousand Lifetime: 565.0 Thousand	 <b>Lifetime Savings</b> 24.8 Million	
 <b>CO<sub>2</sub> Emissions Reduced</b> 7,510 Tons (Annual)	<b>NO<sub>x</sub> Emissions Reduced</b> 1.4 Tons (Annual)	<b>SO<sub>x</sub> Emissions Reduced</b> 0.7 Tons (Annual)

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Empowering you to make smart energy choices



## CONNECTICUT ENERGY EFFICIENCY FUND

Activities in 2012 Produced Substantial Economic and Environmental Benefits for Residents, Businesses and Municipalities



### Customers Served

Number of Households Served  
500,836  
Number of Businesses Served  
4,579



### Energy Savings

kWh Annual	CCF Annual	Gallons Annual (Fuel Oil & Propane)
322.1 Million	3.6 Million	1.2 Million
kWh Lifetime	CCF Lifetime	Gallons Lifetime (Fuel Oil & Propane)
3.3 Billion	53.3 Million	22.9 Million



### Air Emissions Reduced

CO <sub>2</sub>	2.3 Million Tons (Lifetime)
SO <sub>x</sub>	159 Tons (Lifetime)
NO <sub>x</sub>	317 Tons (Lifetime)



### Dollars Saved

Annual	\$53.8 Million
Lifetime	\$596.8 Million



### MMBTUs

Annual	Lifetime
1.7 Million	19.8 Million

Energize Connecticut – programs funded by a charge on customer energy bills.

### Energy Efficiency Board

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