

# **2011 Electric and Natural Gas Conservation and Load Management Plan**

**Submitted by:**

**The Connecticut Light and Power Company  
The United Illuminating Company  
Yankee Gas Services Company  
Connecticut Natural Gas Corporation and  
The Southern Connecticut Gas Company**

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## **CHAPTER ONE: OVERVIEW (Electric and Natural Gas)**

In accordance with Connecticut General Statutes § 16-245m and § 16-32f, The Connecticut Light and Power Company (“CL&P”), The United Illuminating Company (“UI”) (collectively, the “Electric Companies”) and The Connecticut Natural Gas Corporation (“CNG”), The Southern Connecticut Gas Company (“SCG”), and Yankee Gas Services Company (“Yankee Gas”) (collectively the “Natural Gas Companies”) hereby submit this comprehensive Conservation & Load Management (“C&LM”) plan (“2011 C&LM Plan”) for the implementation of cost-effective electric and natural gas energy efficiency programs and market transformation initiatives for the years 2011 and 2012.

The 2011 C&LM Plan represents a continuation of combining the C&LM plans for both the Electric Companies and Natural Gas Companies. The Electric Companies are also continuing to present a two-year budget cycle that will allow for program continuity over a multiple budget year period. This two year budget cycle will also provide latitude for adjustments due to over or under-spending of program budgets and thus minimize disruptive program actions that adversely impact customer and vendor participation. The Electric and Natural Gas Companies will continue to monitor overall market response and program effectiveness and will maintain the flexibility to reallocate unspent program dollars to in-demand programs. This flexibility will allow the Electric and Natural Gas Companies to react to market conditions and enhance their capacity to achieve cost-effective savings.

### **Synergies of Electric and Natural Gas Programs**

Connecticut electric and natural gas customers continue to benefit from the collaborative efforts of the Electric and Natural Gas Companies in developing and delivering energy efficiency programs and services. The collaboration makes it easier for customers to receive more services and benefits at a lower cost with greater convenience and allows for a more streamlined approach to energy efficiency program delivery. For example, many energy efficiency contractors can deliver services to electric and natural gas customers, thereby leveraging existing resources to efficiently and cost-effectively serve more customers. A partnership between the Electric and Natural Gas Companies provides opportunities for cross-promotion to “shared” customers and enhances the quality of the energy efficiency services provided. Serving Electric and Natural Gas customers in this integrated manner also increases overall cost-effectiveness for those measures such as control systems in which the stated incentive may be pro-rated between Fund sources. In 2011, the Electric and Natural

Gas Companies will continue to leverage prior year successes and build upon this integrated approach.

## **Electric Companies**

This is the twelfth C&LM Plan prepared by the Electric Companies since passage of the State's restructuring legislation (Public Act 98-28). Since the original 2000 C&LM Plan, the Electric Companies, the Energy Efficiency Board ("EEB") (formerly the Energy Conservation Management Board) and the EEB consultants have developed and provided award-winning programs that have received national recognition for quality and performance. These programs are aimed at key strategic objectives and deliver energy efficiency services to all classes of customers for a wide array of end uses.

The 2011 C&LM Plan builds upon the strengths of the past, recognizes immediate challenges, and adds program elements in anticipation of future needs. The 2011 C&LM Plan is designed to provide the largest energy and demand savings while meeting the diverse needs of the Energy Efficiency Fund stakeholders, legislative mandates and Department of Public Utility Control ("Department" or "DPUC") orders. The 2011 C&LM Plan conforms to the directives of the Department in its decisions in prior dockets relating to C&LM program delivery. The 2011 C&LM Plan is based on advisement and assistance from the Energy Efficiency Board. This comprehensive plan includes programs originally developed in response to Public Act 05-01, *An Act Concerning Energy Independence* and also addresses mandates enacted in Public Act 07-242, *An Act Concerning Electricity and Energy Efficiency*.

The 2011 C&LM Plan has several funding sources that augment the three mill charge on customers' electric bills. This plan includes funding from the Regional Greenhouse Gas Initiative ("RGGI"), Class III Renewable Energy Credits ("RECs") and the ISO-NE Forward Capacity Market and the American Recovery and Reinvestment Act ("ARRA"). These additional sources of funding, when coupled with the existing funding, will result in some of the largest program budgets that have been available for these programs.

## **Natural Gas Companies**

This is the sixth plan filed by the Natural Gas Companies since passage of the State's energy independence legislation (Public Act 05-01, the "Act") and inclusion of the Natural Gas Companies on the EEB. The 2011 C&LM Plan, as it relates to natural gas energy efficiency, complies with the requirements of Connecticut General Statutes § 16-32f. In accordance with the directives of the Department in its decisions, the Natural Gas Companies considered potential natural gas supply reductions as well as societal

benefits to develop the 2011 C&LM Plan. The Natural Gas Companies developed the 2011 C&LM Plan in conjunction with the EEB and its consultants. The 2011 Plan continues the integration of electric and natural gas efficiency measures through integrated programs. This provides a state-wide comprehensive and cost-effective approach to delivering energy efficiency to customers throughout the state.

On a biennial basis, the Natural Gas Companies file five-year forecasts of natural gas demand and supply with the DPUC. See Conn. Gen. Stat. § 16-32f(a). C&LM plans are an integral part of these forecasts. The Natural Gas Companies previously filed updated five-year forecasts of demand and supply for the period 2009-2013 with the Department in Docket No. 08-10-02 and will be filing updated forecasts in the 2010 proceedings. The Natural Gas Companies recognize the importance of integrating these forecasts with demand-side options and have utilized this approach in the development of the 2011 C&LM Plan. The inclusion of energy efficiency as a resource is the right strategic direction for customers, the State and the Natural Gas Companies. This integrated resource planning approach brings value to customers in the most cost-effective way, while reducing natural gas consumption.

In 2011, the Natural Gas Companies continue to enhance and expand C&I program offerings and have added new prescriptive rebates for energy-efficient natural gas infrared heaters. In recognition of the value and benefit these programs bring to customers, the Natural Gas Companies have again increased core program budgets. The proposed 2011 C&LM Plan includes \$16.9 million of natural gas energy efficiency program funding and it represents a more than 40 percent increase over the approved 2010 budget.

Eighty eight (88) percent of the funding to support natural gas energy efficiency in the 2011 C&LM Plan will be recovered from firm ratepayers by the monthly Conservation Adjustment Mechanism (“CAM”) charges on customers’ bills. Approximately twelve (12) percent is already included in the Natural Gas Companies’ base rates (*Yankee* = \$882k, *CNG* = \$750k, *SCG* = \$300k). The 2010 base rate amounts for CNG and SCG are subject to modification and/or proration based upon the final determination of the Supreme Court Appeal of Docket Nos. 08-12-06 (CNG) and 08-12-07 (SCG).

An additional source of funding may result from excess gross receipts tax (“GRT”) collections (Conn. Gen. Stat. § 16-32f(b)(2008 Supp.)). For 2010, excess GRT funding was unavailable. The potential amount of excess GRT funding available to support the 2011 C&LM Plan is unknown at this time since the annual excess GRT is not calculated until the end of the State’s fiscal year, June 30, 2011. In the event funding from excess GRT becomes available, the Natural Gas Companies have developed a procedure with

the EEB, per the Department's Order No. 4 in Docket 06-10-03, DPUC Review of the Connecticut Gas Utilities Forecast of Demand and Supply 2007-2011 and Joint Conservation Plans, Decision (Jan. 23, 2008), to receive such funds from the State Comptroller's Office. Funds will then be allocated to support energy efficiency programs as described in this 2011 C&LM Plan as an offset to the CAM.

The Natural Gas Companies are committed to ensuring a consistent and vibrant natural gas energy efficiency market that cost-effectively provides customers with opportunities to implement cost-effective energy efficiency measures. Consistent with that commitment, the Natural Gas Companies will review the market's response to these programs, incentive levels and impacts of increased spending on customers and, if warranted, propose additional funding with Department approval in 2011 if: 1) customer response and natural gas energy efficiency measure opportunities are found to be greater than the Natural Gas Companies originally anticipated, and 2) the resulting potential total 2011 C&LM Plan expenditures exceed the funding available through base rates, the existing CAM, and any excess gross receipts tax funding. If customer response is also greater than anticipated, the Natural Gas Companies will review program incentive structures with the EEB to ensure they are established commensurate with current market conditions.

### **Legislative Actions**

The 2007 Public Act 07-242 *An Act Concerning Energy and Energy Efficiency* ("2007 Act") established several initiatives and programs designed to significantly reduce electric power supply costs caused by inadequate transmission and generation in Connecticut's power infrastructure. The 2007 Act provides C&LM incentives that are intended to encourage consumers to conserve electricity, manage their electric load and to install energy-efficient equipment.

The State Legislature also provided funding that will allow the State Treasurer to defease the rate reduction bonds beginning in June of 2008. This allowed the 2008 Fund electric programs to return to operation at full funding. There are many sections of the 2007 Act that have resulted in significant changes for Connecticut. In 2007, the Electric and Natural Gas Companies began working with the EEB and the DPUC to implement various provisions of the 2007 Act that significantly impact the current C&LM portfolio offerings and required modifications to the programs.

Subsequent to the defeasing of the rate reduction bonds, legislative actions through the adoption of Public Act 10-179 will divert approximately \$19 million from the C&LM fund in 2012 and \$27 million annually from 2013 through 2018 to help reduce the State

deficit. Approximately one-third of the EDCs annual C&LM fund will be impacted. In order to avoid any impact on American Recovery and Reinvestment Act (ARRA) funding, the redirection of the C&LM funds will not begin until April 2012. While this action will not impact the 2011 budget, future budgets for electric programs beginning in 2012 will decrease.

### **Maximum Achievable Potential Study**

The Maximum Achievable Potential (“MAP”) study of electric energy efficiency was completed and filed with the DPUC in April 30, 2010 by the EEB. The results of this study and the C&I Natural Gas MAP study completed in May 2009 were used in planning for capturing cost-effective energy efficiency potential and in developing attractive customer incentives.

### **Energy Efficiency Board**

The 2011 C&LM Plan was developed with the advice and assistance of the EEB and its consultants. This is required by the Department and Connecticut General Statutes §16-245m and §16-32f. As required by state statute, the EEB holds public meetings on a regular basis and receives public input. In its September 19, 2001 Final Decision in Docket No. 01-01-14, the Department adopted the EEB’s process for obtaining public comment (“Roadmap Process”). Pursuant to the Roadmap Process, the EEB has received public comments in connection with the 2011 C&LM Plan. The EEB solicited public involvement at the onset of the 2011 C&LM Plan development process to allow public comments to be incorporated throughout the planning process.

The Joint-Utility Research, Development and Demonstration (“RD&D”) program provides on-going technical support of the EEB Roadmap Process. Technical reviews are provided for evaluation of new products or technologies that are submitted to the EEB for consideration of their potential for inclusion in an existing Fund program. The RD&D program will review and assess the proposed new product or technology for its feasibility, appropriateness, potential effectiveness, and cost effectiveness and provide recommendations to the EEB. Reviews are prepared by the joint utility RD&D program staff, with input from utility program administrators, EEB consultants, and others as appropriate. Review oversight is provided by the RD&D program’s Policy Working Group.

## **American Recovery and Reinvestment Act (“ARRA”)**

In early 2009, President Barack Obama and the U.S. Congress passed the American Recovery and Reinvestment Act (“ARRA”) which, in part, provides federal stimulus dollars to States that initiate energy conservation programs to benefit customers. Through the State Energy Program (“SEP”), the Department of Energy has made ARRA funding available to the Connecticut Office of Policy and Management (“CT-OPM”) to support existing Fund programs administered by the Electric and Natural Gas Companies. These funds were granted to the Electric Companies and have been used for the Home Energy Solutions program (Residential) and the Energy Opportunities program (C&I) beginning in 2009. For Home Energy Solutions, ARRA funds have allowed fuel oil and propane-heated homes to participate in the program for the same \$75 co-pay and receive the same level of core services that the Electric and Natural Gas Companies’ customers receive. For the Energy Opportunities program, the ARRA monies increase the programs’ levels of funding and target non-firm natural gas, fuel oil and propane energy efficiency measures resulting in a truly fuel blind program. ARRA funds were originally allocated to the Small Business Program but these funds were recalled by CT-OPM in 2010. CT-OPM is evaluating funding needs for all SEP programs and may reallocate some of these funds to HES at a later date.

## **Forward Capacity Market - Energy Efficiency as a Resource**

Beginning June 1, 2010, the Forward Capacity Market (“FCM”) was put in place by the Independent System Operator-New England’s (“ISO-NE”). Although the transition period ended, and the permanent market was put in place, New England’s energy markets continue to develop and evolve. The Electric Companies continue to be active participants in the development of the ISO-NE stakeholder process to refine the markets. The new FCM allows market participants to bid their peak demand savings into the capacity market. Market participants earn capacity payments for qualifying resources, such as distributed generation, energy efficiency, load management or load response. This is the first time in the United States that a reduction in demand through demand-side resources such as energy efficiency and demand response programs are considered as electrical capacity equivalent to supply-side generation sources. Electrical capacity reduced through the implementation of efficiency and load management measures becomes a resource, which can then be bid into ISO-NE market similar to conventional generation.

The Electric Companies have been active participants in the markets through the transition period and the initial auction rounds. Payments received by the Electric Companies from ISO-NE for this activity have already contributed more than \$26.8

million in revenues to the Energy Efficiency Fund for additional energy efficiency programs.

A significant component of the FCM Qualifications Package was the creation of a Measurement and Verification Plan (“M&V Plan”). The Electric Companies submitted M&V Plans for their respective capacity resources. The foundation for each of the Electric Companies’ M&V Plans was the Electric and Natural Gas Companies’ Program Savings Documentation (“PSD”) manual which is the source document substantiating energy and demand savings for all qualified measures for Fund programs. The PSD manual is updated annually based on new information that is made available from a variety of sources such as evaluation studies completed in the previous year.

### **Integrated Resource Plan**

PA 07-242, An Act Concerning Electricity and Energy Efficiency required the Electric Companies to begin an Integrated Resource Planning (“IRP”) process. To date, the Companies have submitted three plans as part of this process. In all of these submissions, Demand Side Management resources figured prominently in the resource mix for Connecticut. To date, there has been no identified capacity need, and as such there has been no resulting procurement of DSM resources from the IRP.

### **Strategic Focus**

The strategic focus of the Electric and Natural Gas Companies’ energy efficiency programs is the result of a multi-level collaborative process involving the Electric Companies, Natural Gas Companies and a diverse group of stakeholders. These stakeholders include: the Department, the EEB, Connecticut state government, consumer and business interests, national and regional environmental and energy efficiency organizations, design professionals and energy services providers.

The EEB has worked to streamline the stakeholder process to gain efficiency. The prior structure of three input processes has been combined into two committee working groups. The first of these committees is focused on the C&I programs and has been active since 2006. This committee is made up of members of the Electric and Natural Gas Companies’ staff as well as EEB board members and EEB consultants who review the direction and focus of the programs. A complementary committee focuses on Residential programs. Like the C&I group, the Residential Committee is made up of utility staff, EEB members and EEB consultants who focus on the strategic direction of the residential programs. The combination of these three stakeholder processes provides for forward thinking on Residential and C&I program elements on an ongoing

basis. The introductory sections to the Residential and C&I Program descriptions provide an overview of the strategic themes that are driving ongoing program evolution. These committees have also recently adopted a practice of having open, publicly noticed meetings with posted minutes from each meeting.

The Electric and Natural Gas Companies participate in national and regional activities to develop a long-range focus for energy efficiency. These organizations include the Consortium for Energy Efficiency (“CEE”), the American Council for an Energy-Efficient Economy (“ACEEE”), Northeast Energy Efficiency Partnerships (“NEEP”) and other utility and public benefit fund organizations. The activities include market baseline research, development of efficiency standards, regional coordination of activities, exchange of programmatic ideas and concepts and the assessment of the need for incentives. These efforts have produced many of the energy efficiency concepts and measures upon which the programs are based.

### **Collaborative Stakeholder Process and Quality Control**

In developing the 2011 C&LM Plan, the Electric and Natural Gas Companies work with each other, Department staff, the EEB and its consultants, and other Connecticut stakeholders to determine the appropriate areas and levels of emphasis and funding to best serve Connecticut’s needs. There continues to be high levels of cooperation and collaboration between the Electric and Natural Gas Companies to develop programmatic consistency and coordinated implementation where appropriate.

The collaborative efforts also carry beyond the strategic aspects of the programs into implementation. The Electric and Natural Gas Companies’ partnerships actively seek the assistance and involvement of design professionals and trade allies in implementing the programs. The design professional community is a major participant in bringing Fund programs to the new construction market and effectively achieving market penetration. Trade ally knowledge of program benefits helps to produce many of the energy efficiency gains in existing facilities and industrial processes. Regional programs have increased market impact by leveraging the combined efforts of multiple efficiency programs to influence the vendor community.

The Electric and Natural Gas Companies provide high-quality administration of the Fund’s programs and employ a professional staff and management who utilize technical, procedural and accounting systems to oversee and implement the Fund’s programs. Through close coordination between the Electric and Natural Gas Companies and EEB consultants, programs are continually modified and improved to reflect the latest market trends. Electric and Natural Gas Companies’ staff and third-

party energy engineering consultants evaluate project and program energy savings and economic assumptions to determine cost-effectiveness, and inspect projects after implementation to assure compliance. Programs are evaluated by independent consultants to assess their effectiveness and the persistence of the energy savings. The Electric and Natural Gas Companies use the results of these evaluations to continually improve program offerings by reinforcing areas of success and strengthening weaknesses.

## **Awards and Recognition**

Energy Efficiency Fund programs have earned an impressive number of awards and accolades over the years and 2010 was no exception. These awards validate our mission and the benefits our programs provide to Connecticut's residents and businesses.

In 2010 the Energy Efficiency Fund programs were honored as follows:

- The Association of Energy Engineers ("AEE"): Ten Energy Project Awards for the in the following four programs: Energy Opportunities ("EO"), Residential New Construction's ("RNC") Zero Energy Challenge, Small Business Energy Advantage ("SBEA"), and Retro Commissioning.
- The Connecticut Quality Improvement Award ("CQIA"): A Gold Innovation Prize for the Home Energy Solutions program for their successful partnership with the Office of Policy & Management ("OPM"), which brought "one-stop shopping" to residents by offering in-home conservation services with a heating system maintenance program. The CQIA also awarded a Silver Innovation Prize to the Business Sustainability Challenge for its program to assist companies in developing their own energy-saving, carbon-management and sustainability strategies and initiatives.
- The American Council for an Energy-Efficient Economy ("ACEEE"): Their National Review of Exemplary State Energy Efficiency Programs awarded an honorable mention to the Home Energy Solutions program. This award was also in recognition of the partnership with the OPM.
- The U.S. Department of Energy: The Energy Efficiency Fund was part of a team that won a 2010 ENERGY STAR® Sustained Excellence Award as part of the Northeast Retail Products Initiative.

- The U.S. Environmental Protection Agency: US EPA recognized The Energy Efficiency Fund and the Companies with the ENERGY STAR for Homes Leadership in Housing Award.
- 2010 ACEEE Summer Study on Energy Efficiency in Buildings<sup>1</sup>: CL&P and UI co-presented a paper on the Business Sustainability Challenge on the behalf of the Energy Efficiency Fund. CL&P also presented a paper at this conference on the Energy Efficiency Fund's Ductless Heat Pump pilot program and subsequent evaluation.
- The U.S. Center for American Progress ("CAP") in Washington D.C.: Connecticut's energy efficiency efforts are consistently ranked among the best in the nation. In fact, a report issued in September by the CAP listed Connecticut as the top state for energy efficiency policies and services.

## **Program Modifications—Residential and C&I**

The 2011 C&LM Plan expands upon several significant and notable modifications initiated in 2009 and 2010 for the Electric and Natural Gas Companies' Residential and C&I programs. These program modifications are designed in reaction to changing efficiency standards, specifications and codes, and in order to improve program focus and effectiveness. These program modifications are reviewed in the introductory sections for both the Residential and C&I program chapters.

### ***Residential***

The Companies have determined that due to the similarities in services provided, it is appropriate to make the current Low Income programs a component of the Home Energy Solutions program (HES). The Income Eligible track of HES will provide the same services to income eligible customers as the Low Income programs have provided in the past. The primary benefit of this change is that it will allow the Companies to promote the HES program broadly, and then direct customers to the Income Eligible track as appropriate.

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<sup>1</sup> Title of paper on BSC: "The Bees Who Make the Hive Thrive: An Examination of Educating for Business Sustainability"

<http://www.aceee.org/node/3251>

The Electric Companies will continue to explore the feasibility of offering solid state lighting (“LED”) lighting products. ENERGY STAR has developed a specification for LED bulbs in August 2010.

As directed by the Department, the Companies kicked-off the Customer Behavioral Pilot in September of 2010. The Companies plan to begin issuing customized customer reporting by the end of 2010, with the full launch of customer reporting in the first quarter of 2011. The pilot will provide customer energy information which will have measurable impacts on conservation and energy efficiency for residential households and small businesses. The pilots will track electric savings with natural gas savings to be added later in 2011.

Heat Pump Water Heaters (“HPWHs”) will be offered through HES. The Companies are cognizant of potential issues that may arise if units are not installed properly, and plan on working with industry professionals to ensure proper installation standards are followed. In addition, the Companies will continue to push for northern tier ENERGY STAR standards for HPWHs that better address performance and reliability in colder climates. HPWHs are currently available through big-box retail channels and a number of large manufacturers carry HPWHs in their product line. Also available through HES will be a high efficiency natural gas furnace rebate. This rebate will be an early retirement measure and will only be available to customers with existing working natural gas furnaces and boilers. The new replacement heating system must meet both natural gas efficiency criteria as well as fan efficiency criteria, thus making this a joint natural gas/electric measure.

The Residential New Construction Program (“RNC”) will begin to phase in new ENERGY STAR 3.0 requirements. The transition will begin in 2011 with ENERGY STAR 2.5 requirements and ENERGY STAR 3.0 requirements by 2012. These requirements further increase the gap between an ENERGY STAR and “standard” new home in terms of energy efficiency and durability performance.

### ***Commercial & Industrial***

The Commercial and Industrial sector continues to evolve with respect to energy efficiency. Technologies, building design options and operational practices are constantly changing and improving. As such, comprehensive whole building initiatives, education, financing and incentive structures must also change to stay aligned with changes in market forces. In order to meet the challenges, the Commercial & Industrial energy efficiency portfolio continues to transform. Beyond offering incentives for singular capital measure installations, the programs encourage customers to consider

energy efficiency comprehensively - considering the “whole building” as well as overall building performance.

In response to evolving conditions in the marketplace, changes to program incentive structures were implemented in the third quarter of 2009. In March 2010, additional program initiatives were implemented. All of these changes were designed to better align the programs with the marketplace, improve overall program design and delivery, and encourage and enhance customer involvement. These changes included:

- A refined Comprehensive Initiative designed to increase the depth and breadth of energy efficiency projects being contemplated and implemented by customers.
- A revamped approach to Energy Management System projects that is consistent with other elements of the Energy Opportunities program and designed to help capture the potentially significant energy savings available from control systems.
- New additional incentives designed to stimulate the market place and continue encouraging and promoting new lighting technologies such as the installation of qualified solid state lighting (“LED”) and induction lighting.
- New additional incentives designed to stimulate the market place and accelerate the removal of inefficient T12 fluorescent or High Intensity Discharge (HID) lighting technologies.
- A low interest loan package for qualifying projects that replaced T12 fluorescent or High Intensity Discharge (“HID”) lighting systems.
- Prescriptive rebates for gas food service equipment

Looking forward to 2011, the C&I programs will continue their evolution to meet the challenges and needs of the marketplace. In addition, the programs will continue to emphasize comprehensiveness and performance based approaches to achieve greater energy savings. The one resounding message learned from our previous experience is that going “broader and deeper” to achieve savings will drive the program costs higher but will also capture savings from measures that would not typically be accomplished until equipment failure occurs. Ongoing program development activities include:

- Incorporation of energy efficiency measures identified by the C&I Maximum Achievable Potential studies for both the electric and firm natural gas markets.
- Program enhancements, including those noted previously, which promote more comprehensive and integrated projects.

- Exploring whole building performance by more effective use of control technologies for building and industrial systems, and improved persistence of savings through verification activities, and improved operations and management.
- Continued review and periodic adjustment of program incentive structures to ensure that they are consistent with current and expected market conditions, customer investment options and program budgets. The proposed adjustments specifically include: 1) imposing where practical published incentive unit cost rate caps (on a cost-per-annual-energy-saved basis along with a cost-per-peak on a demand-saved basis) for large C&I projects, which do not involve a prescriptive unit incentive, in an effort to provide a higher level of transparency while continuing to better manage project incentive costs, and 2) reducing the percentage of incremental cost based incentives for custom measures involved with process equipment replacement and new process equipment from a cap of 95 percent down to a cap of 75 percent; plus impose an additional cap in which the incentive would result in a customer net simple payback of not less than 18 months. This will increase the level of financial commitment on the customer's part.
- Continued exploration and development of financing strategies including but not limited to Performance Contracting to increase customer participation while leveraging Fund monies.
- Further development of the Business Sustainability Challenge to promote sustainable and comprehensive energy management by businesses and industries.
- Expanding educational offerings to Customers, Installing Vendors and the Architectural/Engineering (A/E) community as they relate to the new codes and efficiency standards, whole building energy performance, operations and maintenance best practices and behavioral change.
- Increased focus and funding to support expansion of the successful O&M Retro Commissioning initiative consistent with the C&I vision to provide comprehensive energy management solutions for businesses.

Continuing in 2011, the Natural Gas Companies will exclude natural gas projects with incentives in excess of \$100,000 from the 2011 C&LM Plan filed natural gas budgets and will submit such projects individually to the Department for approval of incremental

funding. This approach will assist the Natural Gas Companies to minimize the impact of large projects on Department-approved budgets.

### **Residential and C&I Financing**

The objective of the Electric and Natural Gas Companies' C&LM Financing programs is to provide attractive financing alternatives to the balance of customers' costs not covered by the Fund incentive. These options range from referrals to third-party lenders to low interest third-party loans to interest-free on-bill financing funded by the Electric Companies (Small Business Energy Advantage ("SBEA") and Municipal Loan programs) so that customers may easily implement cost-effective energy efficiency projects.

The Electric Companies' zero percent, on-bill financing for the SBEA program has been extremely successful and is recognized as a strong business model by other utilities. We expect continued strong customer participation in the SBEA program due to this financing option. The SBEA financing model is very simple, easy to explain to customers and is offered to the customers through the SBEA contractors. Additionally, the default rates have remained low (less than 1 percent) given the current economic environment. In addition, this current financing model has been adopted for Municipalities and is instrumental for facilitating project implementation especially when funding is scarce.

In 2009, the Electric and Natural Gas Companies implemented several variations of third party financing to make customer implementation even easier. On the commercial side, the Electric and Natural Gas Companies restructured the small C&I third party financing program to reduce the minimum loan amount from \$5,000 to \$2,000. The maximum amount for a subsidized loan is \$100,000. However, Univest Capital, the financing vendor working with the Companies, has the capability of offering unsubsidized loans for amounts greater than \$100,000 and up to \$250,000. There was limited customer acceptance of these loans since all previous financing options, implemented in late 2009 required sacrificing a portion of the project incentive to obtain the lowest possible rates. In 2010, the Electric Companies modified the loan offering to where the subsidized loan rate was approximately 7 percent and the Natural Gas Companies also began offering financing for qualified natural gas measures. This higher rate was established because the loan gave the customer access to the full project incentive with the possibility of achieving positive cash flow. A 2.99 percent loan package was also developed for qualifying projects that replaced T12 or High Intensity Discharge (HID) lighting systems. Loan packages are offered with all C&I customer projects.

The Electric and Natural Gas Companies also developed an enhanced pilot financing option for residential customers. A 2.99 percent financing option, funded through the electric programs, is offered for qualifying residential energy efficiency projects from \$2,000 to \$6,999. A zero percent financing option is offered for qualifying residential energy efficiency projects from \$7,000 to \$20,000. These are unsecured third party loans offered through AFC First Financial Corporation (“AFC”). Both of these options were introduced to the HES vendors and an existing group of qualified AFC contractors on June 1, 2010. The current source of capital to AFC for these residential loans is Fannie Mae, which currently has high interest rates (14.99 percent) and buy-down costs to the Fund. The Companies are working internally as well as with both AFC and the EEB consultants to find alternative sources of capital at rates lower than Fannie Mae. In 2011, the Companies and the EEB will monitor and adjust the customer buy-down rates based on the costs of the sources of capital in order to serve more customers and provide financing solutions while maximizing Energy Efficiency Fund dollars. While expensive to run because of the currently large rate buy-down costs, the loan program has been very successful in attracting a large number of homeowners who have implemented energy efficiency measures as well as changed vendor behavior to include financing as part of their sales process. We attribute some of the high volume of the loan program to the HES and non-HES vendors who used the loan program successfully and made it part of their sales process. The loan program offers a streamlined processing format that makes it extremely easy for homeowners and vendors to participate, achieving one of the major objectives of the pilot.

The Electric and Natural Gas Companies can now offer a broader portfolio of loan options that consist of Fund program offerings and other established loan offerings to their entire customer base. The financing programs noted previously and the strategic activities currently underway are summarized in Chapter Five.

### **Market Transformation through Codes, Standards & Changes in Market Practices**

Proposed amendments currently being considered for the State Building Code were originally identified in 2008. However, as a result of the State’s code adoption process, these amendments are still being considered. The proposed amendments to the State Building Code, when adopted, will affect construction and building renovation projects that participate in the Fund’s 2011 programs.

The Electric and Natural Gas Companies have worked closely with the EEB during the past several years to revise the Fund programs to achieve more substantive and sustainable market change in building design, renovations/remodeling, equipment performance and specifications, operations and maintenance, facility energy

management, load management, etc. The Fund programs, over their life spans, have played an essential role in creating the market, political and societal pre-conditions that facilitate code and standards improvements, by working with customers and their vendors to improve their underlying practices as they relate to energy use. The long-term market transformation strategy for Fund programs is to achieve fundamental market change in energy management and investment practices for the bulk of the residential, commercial, industrial and institutional markets, resulting in sustainable, continuously improving and highly cost-effective savings. However, in developing the 2011 C&LM Plan, the Electric and Natural Gas Companies envision considerable investment of Fund monies and third-party financing resources to effect this transition, especially through education and training, promotion/support for innovative construction design and management tools and practices, and alliances with market-driven sustainability initiatives. The Companies will be developing a transition plan to help the building industry prepare for the adoption of higher building codes and regional standards for a variety of consumer products, including electronics. The descriptions for the Residential programs and C&I programs provide more detail concerning this strategy.

### **High Efficiency and Coordination with Connecticut Clean Energy Fund**

The Electric and Natural Gas Companies also continue to work with the Connecticut Clean Energy Fund (“CCEF”) to further develop program linkages. Collaborative efforts have continued and resulted in the development of customer participation protocols for CCEF projects. The CCEF’s On-Site Renewable Distributed Generation Program requires applicants to complete an “energy audit” to confirm that energy-efficient measures have been installed or to have participated in an Energy Efficiency Fund program within 36 months prior to submission of the CCEF incentive application. This ongoing coordination of energy efficiency and renewable energy efforts leads to buildings and projects with larger reductions in energy use and peak demand. If no audit has been conducted, the site owner must conduct an energy audit performed by an experienced third-party evaluator on the subject facility, or participate in one or more of the local utilities’ Energy Efficiency Fund programs. Documentation of this participation must accompany the CCEF application.

The Electric Companies are also planning to continue their collaboration and partner with CCEF on the eeCommunities program. The Companies and CCEF will coordinate activities with town green energy task forces and other community organizations to promote Fund and CCEF programs. The outcome of this effort will be a streamlined approach for municipalities and other community organizations to help engage their residents or members in saving energy and implementing renewable energy projects.

## Fuel Switching

The Department's Decision in Docket No. 10-02-07, DPUC Review of the 2010 Integrated Resource Plan, states:

*"The current energy environment and cultural shift noted above demands that we modify our approach and look to determine the most efficient use of the fuel used to power our needs. Fuel switching must be examined to achieve this benefit. Therefore, a comparison of the costs and benefits of alternative fuels (where applicable) must be integrated into the review of C&LM activity."* - Decision page 58.

The implementation of comprehensive programs often presents fuel switching opportunities which are addressed as Lost Opportunities, with incentives calculated as a portion of the incremental cost between baseline and high efficiency equipment. As a result, these relatively small incentives are not believed to significantly influence customer's ultimate choice of fuel. However, regardless of the minor causal relationship between program incentives and fuel switching, using funds in this way introduces cross-subsidization between electric or gas ratepayers that until now was prohibited, in general.

In addition, some fuel switching opportunities driven by fuel price differences may actually reduce overall efficiency of the energy utilization. The Companies have encountered this issue during program incentive design as well as in the design of the energy efficiency financing programs. This has been especially apparent with customer and vendor demand for "fuel blind" incentives and financing to improve their equipment efficiency and reduce their energy costs by switching from fuel oil to natural gas or electric heat to natural gas. Consumer choice to become more environmentally-friendly is also prompting customers to consider the environmental benefits of fuel switching at the time of implementing energy efficient improvements. The Companies acknowledge that there is precedence for cross subsidization of fuels using rate payer funded programs as evident by the Natural Gas Chiller Efficiency program approved in Docket 05-17-14PH01, support for fuel oil and propane measures through the Home Energy Solutions, income eligible, and residential financing programs, and the geothermal rebates offered by the Energy Efficiency Fund. There has also been concern expressed by the Department regarding using these funds to pay for alternative fuel energy efficiency and how addressing alternative fuels impacts the cost-effectiveness of the programs. We need to be mindful of the fact that, aside from the finite ARRA

funding of “fuel-blind” energy efficiency measures, there are currently no Energy Efficiency Fund monies for other prevalent fuel-linked efficiency programs for oil and propane. The Companies welcome a discussion on this matter during the upcoming proceedings so that they can better shape the future direction and design of the Energy Efficiency Fund programs as they continue to achieve energy efficiency and demand reduction objectives and meet customer needs.

## **Regional Greenhouse Gas Initiative**

The Regional Greenhouse Gas Initiative (“RGGI”) is the first mandatory, market-based effort in the United States to reduce greenhouse gas emissions. By 2018, Connecticut and ten Northeastern and Mid-Atlantic States will cap and reduce carbon dioxide (“CO<sub>2</sub>”) emissions from the power sector by 10 percent. The participating states include: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont. The participating RGGI states will sell emission allowances through auctions and invest the auction proceeds to Public Benefits Charge programs that fund energy efficiency, renewable energy and other clean energy programs and technologies.

Through laws or regulations, each state will limit emissions of CO<sub>2</sub> from electric power plants, creating CO<sub>2</sub> allowances and establishing the state’s participation in CO<sub>2</sub> allowance auctions. Each state’s laws or regulations were developed and based upon a “Model Rule” drafted jointly by the states to provide a coordinating regulatory framework. Those regulated power plants will be able to use a CO<sub>2</sub> allowance issued by any of the ten participating states to demonstrate compliance with an individual state’s program. When aggregated in this manner, the ten individual state programs will function as a single regional compliance market for CO<sub>2</sub> emissions. RGGI is intended to spur innovation in the clean energy economy and create green jobs in each state.

The Department of Environmental Protection finalized its RGGI regulations (Section 22a-174-31), which became effective July 23, 2008. A minimum of seventy-seven (77) percent must be allocated to the Connecticut Auction Account. Not later than December 31, 2009 and December 31 of each year thereafter, at least sixty-nine and one-half (69.5) percent of proceeds from auctions, less any amount of revenue refunded pursuant to subsection (j) of this section, must be transferred to accounts held by the Electric Companies and overseen by the EEB and to an account held by the Connecticut Municipal Electric Energy Cooperative (“CMEEC”). Seventy-five (75.0) percent of such proceeds shall be distributed to the CL&P account, eighteen and three-fourths (18.75) percent shall be distributed to the UI account and six and one-fourth

(6.25) percent shall be distributed to the CMEEC account. Such proceeds shall be used to support the development of energy efficiency measures. The value of allowances sold above \$5 per ton shall not be allocated to utilities for efficiency programs but shall be set aside for consumer rebates.

The following table depicts the results of the RGGI auctions to date.

Auction Number	Control Period	Quantity Offered	Quantity Sold	Clearing Price	Total Proceeds
<b>Auction 1</b> 9/25/2008	Current	12,565,387	12,565,387	\$3.07	\$38,575,738.09
<b>Auction 2</b> 12/17/2008	Current	31,505,898	31,505,898	\$3.38	\$106,489,935.24
<b>Auction 3</b> 3/18/2009	Current	31,513,765	31,513,765	\$3.51	\$117,248,629.80
	Future	2,175,513	2,175,513	\$3.05	
<b>Auction 4</b> 6/17/2009	Current	30,887,620	30,887,620	\$3.23	\$104,242,445.00
	Future	2,172,540	2,172,540	\$2.06	
<b>Auction 5</b> 9/9/2009	Current	28,408,945	28,408,945	\$2.19	\$66,278,239.35
	Future	2,172,540	2,172,540	\$1.87	
<b>Auction 6</b> 12/2/2009	Current	28,591,698	28,591,698	\$2.05	\$61,587,120.90
	Future	2,172,540	1,599,000	\$1.86	
<b>Auction 7</b> 3/10/2010	Current	40,612,408	40,612,408	\$2.07	\$87,956,944.56
	Future	2,137,992	2,091,000	\$1.86	
<b>Auction 8</b> 6/09/2010	Current	40,685,585	40,685,585	\$1.88	\$80,465,566.78
	Future	2,137,993	2,137,993	\$1.86	



## GRANT SUBMISSIONS

On April 21, 2010, the U.S. Department of Energy, (DOE), Golden Field Office, on behalf of the Office of Energy and Renewable Energy's Weatherization and Intergovernmental Program, sought applications for innovative ways to weatherize homes of low income families (Funding Opportunity Announcement Number: DE-FOA-00000309). The focus and scope of the activity objectives were to include new and non traditional providers and develop new partnerships that may involve non traditional and existing Weatherization Assistance Program ("WAP") network providers. Also, the scope should leverage financial resources in addition to Federal funds and improve the effectiveness of low income weatherization through the use of new materials, technologies, behavior change, models and/or processes. Desired metrics for improving effectiveness include increasing the number of homes weatherized, reducing cost per weatherized home, increasing energy cost savings per home, increasing jobs created and retained, and reducing greenhouse gas emissions.

UI and CL&P, on behalf of the Energy Efficiency Fund, secured innovative partners including the City of New Haven, the City of Bridgeport, NauVEL, Yale New Haven Hospital, Connecticut Children's Medical Center, Bridgeport Neighborhood Trust, Wagner & Associates, and NeighborWorks New Horizons and filed the application as the Connecticut Green and Healthy Housing Initiative ("CTGHHI"), seeking an award of \$3 Million Dollars. CTGHHI is an excellent opportunity to move to a one touch approach providing "Green and Healthy Housing" programs for low income families in the State of Connecticut. With this funding opportunity, the CTGHHI partnership will work with existing low income organizations and the programs they offer to provide a streamlined portfolio of services to low income residents. The Companies will continue to use existing energy programs and identify those projects that are eligible for services such as lead abatement, asbestos removal and housing rehabilitation.

The Companies and their partners will commit to this two-year partnership and deliver to low income families energy efficiency measures either through retrofit or upgrades along with the other corresponding services. This will create an energy efficient ethic among Connecticut residents encouraging them to further incorporate energy efficiency practices and behaviors in their home. The Companies were notified on August 18, 2010 of their success in receiving this Grant award.

The Companies, in partnership with the CT-OPM, also responded to another federal Grant submission from the US DOE but were notified that their proposal would not be awarded the Grant.

BUDGET TABLES (Electric Companies)

**BUDGET TABLES**

**Table A1  
2011  
CL&P/UI Proposed C&LM Budget**

CL&P/UI C&LM BUDGET	2011 CL&P Proposed Base Budget	2011 UI Proposed Base Budget	2011 CL&P/UI Proposed Budget Total
<b>RESIDENTIAL</b>			
Residential Retail Products	\$ 6,132,901	\$ 1,569,012	\$ 7,701,913
<b>Total - Consumer Products</b>	<b>\$ 6,132,901</b>	<b>\$ 1,569,012</b>	<b>\$ 7,701,913</b>
Residential New Construction	\$ 1,460,024	\$ 215,440	\$ 1,675,464
Home Energy Solutions (HVAC, Duct Sealing, Lighting)	\$ 11,749,370	\$ 2,601,313	\$ 14,350,683
HES Income Eligible	\$ 10,527,047	\$ 2,398,996	\$ 12,926,043
<b>Subtotal Residential</b>	<b>\$ 29,869,342</b>	<b>\$ 6,784,761</b>	<b>\$ 36,654,103</b>
<b>COMMERCIAL &amp; INDUSTRIAL</b>			
<b>C&amp;I LOST OPPORTUNITY</b>			
Energy Conscious Blueprint	\$ 8,759,606	\$ 3,174,527	\$ 11,934,133
<b>Total - Lost Opportunity</b>	<b>\$ 8,759,606</b>	<b>\$ 3,174,527</b>	<b>\$ 11,934,133</b>
<b>C&amp;I LARGE RETROFIT</b>			
Energy Opportunities	\$ 12,715,750	\$ 3,094,350	\$ 15,810,100
O&M (Services, RetroCx, BSC)	\$ 4,277,740	\$ 441,667	\$ 4,719,407
PRIME	\$ 488,087	\$ 86,008	\$ 574,095
<b>Total - C&amp;I Large Retrofit</b>	<b>\$ 17,481,577</b>	<b>\$ 3,622,025</b>	<b>\$ 21,103,602</b>
Small Business	\$ 10,637,893	\$ 2,410,634	\$ 13,048,527
<b>Subtotal C&amp;I</b>	<b>\$ 36,879,076</b>	<b>\$ 9,207,186</b>	<b>\$ 46,086,262</b>
<b>OTHER - EDUCATION *</b>			
SmartLiving Center® - Museum Partnerships	\$ 400,000	\$ 459,246	\$ 859,246
EE Communities / Behavior Pilot	\$ 850,000	\$ 176,822	\$ 1,026,822
K-8 Education	\$ 225,000	\$ 401,825	\$ 626,825
<b>Subtotal Education</b>	<b>\$ 1,475,000</b>	<b>\$ 1,037,893</b>	<b>\$ 2,512,893</b>
<b>OTHER - PROGRAMS/REQUIREMENTS</b>			
Institute for Sustainable Energy (ECSU)	\$ 400,000	\$ 100,000	\$ 500,000
Residential Loan Program	\$ 3,150,000	\$ 589,087	\$ 3,739,087
C&I Loan Program	\$ 475,000	\$ 50,000	\$ 525,000
C&LM Loan Defaults	\$ 135,000	\$ 50,000	\$ 185,000
<b>Subtotal Programs/Requirements</b>	<b>\$ 4,160,000</b>	<b>\$ 789,087</b>	<b>\$ 4,949,087</b>
<b>OTHER - LOAD MANAGEMENT</b>			
ISO Load Response Program	\$ 3,000,000	\$ -	\$ 3,000,000
<b>Subtotal Load Management</b>	<b>\$ 3,000,000</b>	<b>\$ -</b>	<b>\$ 3,000,000</b>
<b>OTHER - RENEWABLES &amp; RD&amp;D</b>			
Research, Development & Demonstration	\$ 200,000	\$ 125,000	\$ 325,000
<b>Subtotal Renewables &amp; RD&amp;D</b>	<b>\$ 200,000</b>	<b>\$ 125,000</b>	<b>\$ 325,000</b>
<b>OTHER - ADMINISTRATIVE &amp; PLANNING</b>			
Administration	\$ 900,000	\$ 646,635	\$ 1,546,635
General Awareness	\$ 80,000	\$ 20,000	\$ 100,000
Planning (UI Planning & Evaluation)	\$ 650,000	\$ 308,819	\$ 958,819
Evaluation (UI Evaluation, Outside Services)	\$ 1,800,000	\$ 430,000	\$ 2,230,000
Information Technology	\$ 1,700,000	\$ 243,000	\$ 1,943,000
Energy Efficiency Board	\$ 400,000	\$ 210,000	\$ 610,000
Performance Management Fee	\$ 4,035,671	\$ 979,619	\$ 5,015,290
<b>Admin/Planning Expenditures</b>	<b>\$ 9,565,671</b>	<b>\$ 2,838,073</b>	<b>\$ 12,403,744</b>
<b>PROGRAM SUBTOTALS</b>			
<b>Residential</b>	<b>\$ 34,308,342</b>	<b>\$ 8,300,527</b>	<b>\$ 42,608,869</b>
<b>C&amp;I</b>	<b>\$ 40,755,076</b>	<b>\$ 9,438,400</b>	<b>\$ 50,193,476</b>
<b>Other*</b>	<b>\$ 10,085,671</b>	<b>\$ 3,043,073</b>	<b>\$ 13,128,744</b>
<b>TOTAL Note 1</b>	<b>\$ 85,149,089</b>	<b>\$ 20,782,000</b>	<b>\$ 105,931,089</b>

\* OTHER - EDUCATION is primarily allocated to residential programs.

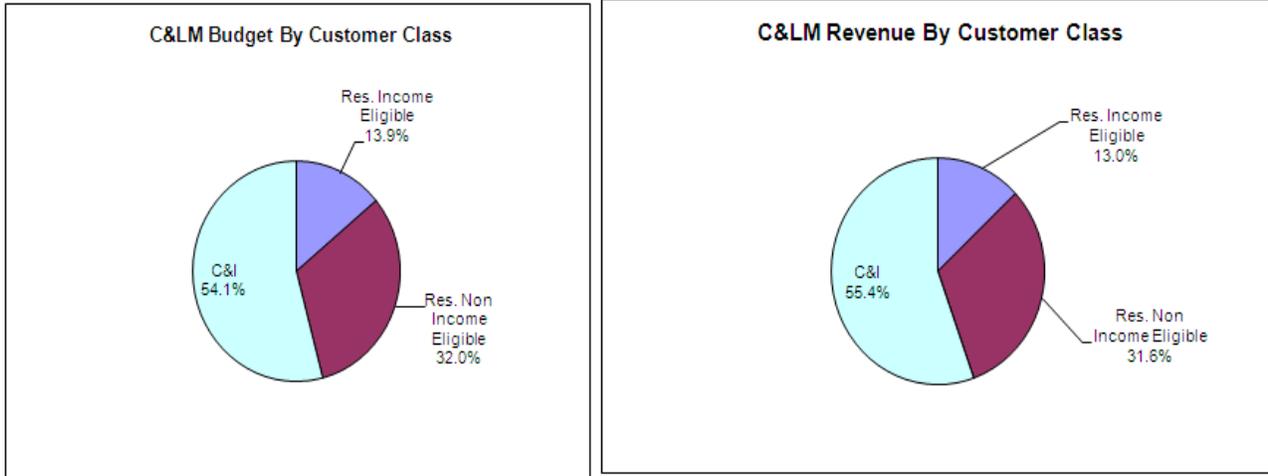
Note 1: See Table A2 for Revenue Breakdown

Table A2 2011, 2012, 2013 CL&P/UI C&LM Revenues						
CL&P/UI C&LM REVENUES	2011 Base Budget with RGGI			2011 with RGGI & Full IRP		
	2011 CL&P Revenues	2011 UI Revenues	2011 CL&P/UI Total	2011 CL&P Revenues	2011 UI Revenues	2011 CL&P/UI Total
Collections (Mil Rate)	\$ 66,883,730	\$ 16,182,000	\$ 83,065,730	\$ 66,883,730	\$ 16,182,000	\$ 83,065,730
ISO-NE Other Demand Resources (ODRs)	\$ 6,400,000	\$ 1,500,000	\$ 7,900,000	\$ 6,400,000	\$ 1,500,000	\$ 7,900,000
ISO-NE Forward Capacity Market Demand Response Revenues	\$ 3,000,000		\$ 3,000,000	\$ 3,000,000		\$ 3,000,000
Class III Renewable Energy Credits	\$ 4,000,000	\$ 1,000,000	\$ 5,000,000	\$ 4,000,000	\$ 1,000,000	\$ 5,000,000
RGGI*	\$ 4,865,359	\$ 2,100,000	\$ 6,965,359	\$ 4,865,359	\$ 2,100,000	\$ 6,965,359
IRP Revenues				\$ 21,600,000	\$ 5,400,000	\$ 27,000,000
<b>Total - C&amp;LM Revenues</b>	<b>\$ 85,149,089</b>	<b>\$ 20,782,000</b>	<b>\$ 105,931,089</b>	<b>\$ 106,749,089</b>	<b>\$ 26,182,000</b>	<b>\$ 132,931,089</b>
CL&P/UI C&LM REVENUES	2012 Proposed Base Budget			2013 Proposed Base Budget		
	2012 CL&P Revenues	2012 UI Revenues	2012 CL&P/UI Total	2013 CL&P Revenues	2013 UI Revenues	2013 CL&P/UI Total
Collections (Mil Rate)**	\$ 49,990,679	\$ 11,757,225	\$ 61,747,904	\$ 44,455,177	\$ 10,313,550	\$ 54,768,727
ISO-NE Other Demand Resources (ODRs)	\$ 6,500,000	\$ 1,600,000	\$ 8,100,000	\$ 6,200,000	\$ 1,600,000	\$ 7,800,000
ISO-NE Forward Capacity Market Demand Response Revenues	\$ 1,700,000		\$ 1,700,000	\$ 1,700,000		\$ 1,700,000
Class III Renewable Energy Credits	\$ 3,600,000	\$ 900,000	\$ 4,500,000	\$ 3,200,000	\$ 800,000	\$ 4,000,000
RGGI*	\$ 4,865,359	\$ 2,100,000	\$ 6,965,359	\$ 4,865,359	\$ 2,100,000	\$ 6,965,359
<b>Total - C&amp;LM Revenues</b>	<b>\$ 66,656,038</b>	<b>\$ 16,357,225</b>	<b>\$ 83,013,263</b>	<b>\$ 60,420,536</b>	<b>\$ 14,813,550</b>	<b>\$ 75,234,086</b>

\*RGGI Budget is based on \$2.00 / allowance for 2010 through 2012

\*\*Collections (Mil Rate) in 2012 Assumes State takes 35% starting April 1, 2012; 35% for the full year in 2013

**Statewide (CL&P and UI) 2011 C&LM Budget and Parity Analysis**  
**Table A1 Pie Chart**



Customer Class	Budget (\$,000)	% of Total C&LM Budget	% of Residential & C&I Budget	% of Residential & C&I Revenue	Difference
Res. Income Eligible	\$12,926,043	12.20%	13.93%	12.97%	0.96%
Res. Non Income Eligible	\$29,682,826	28.02%	31.98%	31.59%	0.40%
<b>Residential Subtotal</b>	<b>\$42,608,869</b>	<b>40.22%</b>	<b>45.91%</b>	<b>44.55%</b>	<b>1.36%</b>
C&I	\$50,193,476	47.38%	54.09%	55.45%	-1.36%
<b>C&amp;I Subtotal</b>	<b>\$50,193,476</b>	<b>47.38%</b>	<b>54.09%</b>	<b>55.45%</b>	<b>-1.36%</b>
<b>Residential and C&amp;I Subtotal</b>	<b>\$92,802,345</b>	<b>87.61%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>0.00%</b>
<b>Other Expenditures</b>					
Other Expenditures	\$13,128,744	12.39%			
<b>Other Expenditures Subtotal</b>	<b>\$13,128,744</b>	<b>12.39%</b>			
<b>C&amp;LM TOTAL</b>	<b>\$105,931,089</b>	<b>100.00%</b>			
CL&P	\$85,149,089	80.38%			
UI	\$20,782,000	19.62%			

Totals may vary due to rounding

**TABLE B2  
STATEWIDE TOTAL RESOURCE COSTS AND BENEFITS FOR C&LM PROGRAMS**

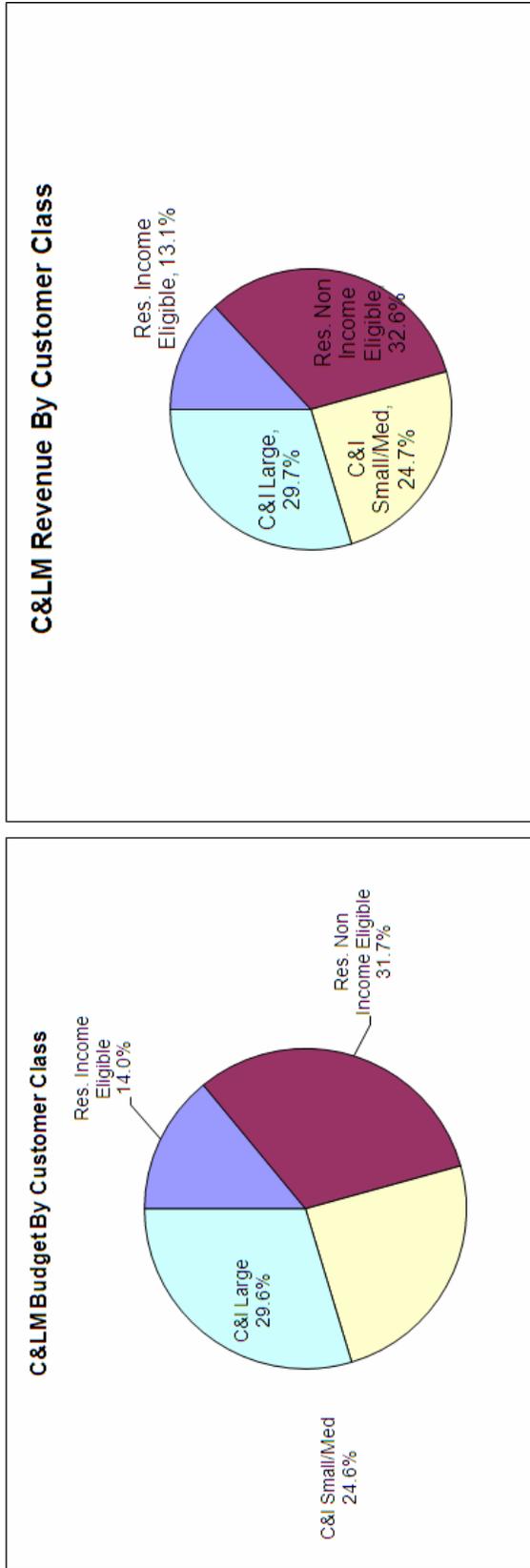
Program	Utility Costs 2011	Customer Cost 2011	Total Resource Cost 2011	Total Resource Benefit 2011	Total Resource B/C Ratio	Annualized Savings kWh	Lifetime Savings kWh	Load Savings kW	Annual Water Savings (gal)	Lifetime Water Savings (Gal)	Annual Gas Savings (CCF)	Lifetime Gas Savings (CCF)	Peak Day Gas Savings (CCF)	Annual Oil Savings (gal)	Lifetime Oil Savings (gal)	Annual Propane Savings (Gal)	Lifetime Propane Savings (Gal)	CO2 Emissions Reductions (Lifetime Tons)	
Residential Retail Products	\$ 7,701,913	\$ 6,531,635	\$ 14,233,548	\$ 86,119,360	6.1	142,449,286	564,808,506	11,058	-	-	-	-	0	-	-	-	-	271,447	
Appliance Rebate Program																			
<b>TOTAL - CONSUMER PRODUCTS</b>	<b>\$ 7,701,913</b>	<b>\$ 6,531,635</b>	<b>\$ 14,233,548</b>	<b>\$ 86,119,360</b>	<b>6.1</b>	<b>142,449,286</b>	<b>564,808,506</b>	<b>11,058</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>271,447</b>
Water Heating	\$ 363,000	\$ 497,230	\$ 860,230	\$ 644,852	0.7	2,488,777	31,575,088	612	46,408	928,162	46,408	928,162	144	6,287	156,671	3,003	75,082	5,417	
Residential New Construction	\$ 2,825,464	\$ 1,523,856	\$ 4,349,320	\$ 5,917,460	1.4	24,404,070	279,189,570	4,412	44,908,061	257,612,373	92,268	2,306,696	819	595,287	11,748,280	43,105	855,312	344,882	
Home Energy Solutions	\$ 18,950,683	\$ 14,248,644	\$ 33,199,327	\$ 73,574,304	2.2	20,251,800	169,478,531	1,931	33,090,308	185,451,542	459,133	7,340,251	3,900	534,204	5,297,216	621	8,351	183,459	
HES Income Eligible	\$ 15,607,618	\$ 995,950	\$ 16,603,567	\$ 41,732,826	2.5	189,593,934	1,045,051,696	18,013	77,898,369	423,063,915	1,306,051	23,248,713	10,960	1,135,757	17,202,167	46,729	938,745	835,666	
<b>SUB-TOTAL RESIDENTIAL</b>	<b>\$ 45,448,678</b>	<b>\$ 23,797,314</b>	<b>\$ 69,245,992</b>	<b>\$ 207,988,602</b>	<b>3.0</b>	<b>189,593,934</b>	<b>1,045,051,696</b>	<b>18,013</b>	<b>77,898,369</b>	<b>423,063,915</b>	<b>1,306,051</b>	<b>23,248,713</b>	<b>10,960</b>	<b>1,135,757</b>	<b>17,202,167</b>	<b>46,729</b>	<b>938,745</b>	<b>835,666</b>	
Energy Conscious Blueprint (a)	\$ 15,604,133	\$ 5,925,076	\$ 21,429,209	\$ 62,363,030	2.9	32,474,756	516,393,861	5,572	-	-	428,161	6,576,326	3,144	-	-	-	-	286,560	
<b>TOTAL - LOST OPPORTUNITY</b>	<b>\$ 15,604,133</b>	<b>\$ 5,925,076</b>	<b>\$ 21,429,209</b>	<b>\$ 62,363,030</b>	<b>2.9</b>	<b>32,474,756</b>	<b>516,393,861</b>	<b>5,572</b>	<b>0</b>	<b>0</b>	<b>428,161</b>	<b>6,576,326</b>	<b>3,144</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>286,560</b>	
Energy Opportunities	\$ 18,340,100	\$ 17,981,670	\$ 36,321,770	\$ 77,694,244	2.1	44,236,832	543,494,243	5,914	-	-	1,054,925	15,228,403	11,738	-	-	-	-	350,980	
OKMII	\$ 5,119,407	\$ 4,263,751	\$ 9,383,158	\$ 21,541,921	2.3	17,562,626	159,104,253	2,039	-	-	108,657	848,078	1,083	-	-	-	-	81,415	
Services (BSC, Training, RetroX)	\$ 574,095	\$ 124,182	\$ 698,277	\$ 115,161,043	16.5	1,857,555	3,287,775	-	-	-	-	-	-	-	-	-	-	4,464	
PRIME	\$ 24,033,602	\$ 22,369,604	\$ 46,403,206	\$ 110,752,209	2.4	63,657,012	714,886,271	7,963	-	-	1,163,281	16,076,480	12,822	-	-	-	-	435,559	
<b>TOTAL - C&amp;L/LARGE RETROFIT</b>	<b>\$ 24,033,602</b>	<b>\$ 22,369,604</b>	<b>\$ 46,403,206</b>	<b>\$ 110,752,209</b>	<b>2.4</b>	<b>63,657,012</b>	<b>714,886,271</b>	<b>7,963</b>	<b>0</b>	<b>0</b>	<b>1,163,281</b>	<b>16,076,480</b>	<b>12,822</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>435,559</b>	
Small Business	\$ 13,048,527	\$ 13,159,475	\$ 26,208,002	\$ 54,379,235	2.1	39,541,616	462,728,702	6,092	-	-	(250,707)	(3,008,483)	-	-	-	-	-	204,529	
<b>SUB-TOTAL C&amp;L</b>	<b>\$ 52,686,262</b>	<b>\$ 41,354,155</b>	<b>\$ 94,040,417</b>	<b>\$ 227,494,474</b>	<b>2.4</b>	<b>135,673,384</b>	<b>1,691,008,835</b>	<b>19,618</b>	<b>0</b>	<b>0</b>	<b>1,340,736</b>	<b>19,644,324</b>	<b>15,966</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>927,348</b>	

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**Table A**  
**2011 CL&P Proposed**  
**C&LM Budget**

CL&P C&LM BUDGET	2010 CL&P Decision Budget RGGI & Stimulus 04/15/10	2011 CL&P Proposed Base Budget 10/01/10	2011 (A) CL&P Proposed Base & Full IRP 10/01/10	2012 CL&P Proposed Base Budget 10/01/10
<b>RESIDENTIAL</b>				
Residential Retail Products Note 1	\$ 8,600,000	\$ 6,132,901	\$ 7,736,180	\$ 4,815,950
Appliance Rebate Program	\$ 2,687,200	\$ -	\$ -	\$ -
<b>Total - Consumer Products</b>	<b>\$ 11,287,200</b>	<b>\$ 6,132,901</b>	<b>\$ 7,736,180</b>	<b>\$ 4,815,950</b>
Residential New Construction	\$ 2,500,000	\$ 1,460,024	\$ 1,864,808	\$ 1,114,906
Home Energy Solutions (HVAC, Duct Sealing, Lighting) Note 5	\$ 19,315,600	\$ 11,749,370	\$ 15,921,399	\$ 11,366,118
HES Income Eligible	\$ 11,400,000	\$ 10,527,047	\$ 13,306,993	\$ 8,056,871
<b>Subtotal Residential</b>	<b>\$ 44,502,800</b>	<b>\$ 29,869,342</b>	<b>\$ 38,829,380</b>	<b>\$ 25,353,845</b>
<b>COMMERCIAL &amp; INDUSTRIAL C&amp;I LOST OPPORTUNITY</b>				
Energy Conscious Blueprint	\$ 13,400,000	\$ 8,759,606	\$ 11,954,645	\$ 6,535,522
<b>Total - Lost Opportunity</b>	<b>\$ 13,400,000</b>	<b>\$ 8,759,606</b>	<b>\$ 11,954,645</b>	<b>\$ 6,535,522</b>
<b>C&amp;I LARGE RETROFIT</b>				
Energy Opportunities	\$ 23,150,000	\$ 12,715,750	\$ 16,491,662	\$ 9,496,415
O&M (Services, RetroCx, BSC)	\$ 3,099,935	\$ 4,277,740	\$ 4,954,109	\$ 3,201,068
PRIME	\$ 505,798	\$ 488,087	\$ 633,023	\$ 364,515
<b>Total - C&amp;I Large Retrofit</b>	<b>\$ 26,755,733</b>	<b>\$ 17,481,577</b>	<b>\$ 22,078,794</b>	<b>\$ 13,061,998</b>
Small Business	\$ 10,890,207	\$ 10,637,893	\$ 13,796,790	\$ 7,944,624
<b>Subtotal C&amp;I</b>	<b>\$ 51,045,939</b>	<b>\$ 36,879,076</b>	<b>\$ 47,830,229</b>	<b>\$ 27,542,144</b>
<b>OTHER - EDUCATION *</b>				
SmartLiving Center® - Museum Partnerships	\$ 525,000	\$ 400,000	\$ 400,000	\$ 300,000
EE Communities / Behavior Pilot	\$ 750,000	\$ 850,000	\$ 850,000	\$ 650,000
K-8 Education	\$ 400,000	\$ 225,000	\$ 225,000	\$ 200,000
Science Center	\$ -	\$ -	\$ -	\$ -
<b>Subtotal Education</b>	<b>\$ 1,675,000</b>	<b>\$ 1,475,000</b>	<b>\$ 1,475,000</b>	<b>\$ 1,150,000</b>
<b>OTHER - PROGRAMS/REQUIREMENTS</b>				
Institute for Sustainable Energy (ECSU)	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000
Other Funding Requests	\$ 325,600	\$ -	\$ -	\$ -
Residential Loan Program	\$ 4,350,000	\$ 3,150,000	\$ 3,275,000	\$ 2,200,000
C&I Loan Program	\$ 1,250,000	\$ 475,000	\$ 475,000	\$ 375,000
C&LM Loan Defaults	\$ 150,000	\$ 135,000	\$ 150,000	\$ 100,000
<b>Subtotal Programs/Requirements</b>	<b>\$ 6,475,600</b>	<b>\$ 4,160,000</b>	<b>\$ 4,300,000</b>	<b>\$ 3,075,000</b>
<b>OTHER - LOAD MANAGEMENT</b>				
ISO Load Response Program Note 2	\$ 6,000,000	\$ 3,000,000	\$ 3,000,000	\$ 1,700,000
<b>Subtotal Load Management</b>	<b>\$ 6,000,000</b>	<b>\$ 3,000,000</b>	<b>\$ 3,000,000</b>	<b>\$ 1,700,000</b>
<b>OTHER - RENEWABLES &amp; RD&amp;D</b>				
Research, Development & Demonstration	\$ 274,000	\$ 200,000	\$ 200,000	\$ 150,000
<b>Subtotal Renewables &amp; RD&amp;D</b>	<b>\$ 274,000</b>	<b>\$ 200,000</b>	<b>\$ 200,000</b>	<b>\$ 150,000</b>
<b>OTHER - ADMINISTRATIVE &amp; PLANNING</b>				
Administration	\$ 1,062,243	\$ 900,000	\$ 950,000	\$ 750,000
General Awareness	\$ 160,000	\$ 80,000	\$ 80,000	\$ 80,000
Planning Note 3	\$ 660,000	\$ 650,000	\$ 725,000	\$ 550,000
Evaluation Note 3	\$ 2,200,000	\$ 1,800,000	\$ 1,800,000	\$ 1,250,000
Information Technology	\$ 1,931,000	\$ 1,700,000	\$ 2,000,000	\$ 1,500,000
Energy Efficiency Board	\$ 500,000	\$ 400,000	\$ 500,000	\$ 400,000
Performance Management Fee	\$ 5,799,330	\$ 4,035,671	\$ 5,059,480	\$ 3,155,049
<b>Subtotal Admin/Planning Expenditures</b>	<b>\$ 12,312,573</b>	<b>\$ 9,565,671</b>	<b>\$ 11,114,480</b>	<b>\$ 7,685,049</b>
<b>PROGRAM SUBTOTALS</b>				
<b>Residential</b>	<b>\$ 50,400,800</b>	<b>\$ 34,308,342</b>	<b>\$ 43,393,380</b>	<b>\$ 28,577,845</b>
<b>C&amp;I</b>	<b>\$ 58,732,939</b>	<b>\$ 40,755,076</b>	<b>\$ 51,721,229</b>	<b>\$ 29,923,144</b>
<b>Other*</b>	<b>\$ 13,152,173</b>	<b>\$ 10,085,671</b>	<b>\$ 11,634,480</b>	<b>\$ 8,155,049</b>
<b>TOTAL C&amp;LM BUDGET</b>	<b>\$ 122,285,911</b>	<b>\$ 85,149,089</b>	<b>\$ 106,749,089</b>	<b>\$ 66,656,038</b>
<b>TOTAL</b>	<b>\$ 122,285,911</b>	<b>\$ 85,149,089</b>	<b>\$ 106,749,089</b>	<b>\$ 66,656,038</b>
<b>Docket 05-07-14PH01 EIA Programs</b>				
ISO Load Response Programs Note 2, Note 5, Note 6	\$ 1,416,691	\$ -	\$ -	\$ -
<b>Subtotal Docket 05-07-14PH01 EIA Programs</b>	<b>\$ 1,416,691</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL C&amp;LM and EIA</b>	<b>\$ 123,702,602</b>	<b>\$ 85,149,089</b>	<b>\$ 106,749,089</b>	<b>\$ 66,656,038</b>
* OTHER -EDUCATION is primarily allocated to residential programs.				
Note 1: Retail Products includes Retail Lighting and ENERGY STAR Appliances.				
Note 2: ISO-NE Load Response Customer payments are partially offset by ISO-NE Transition Period Payments, MW goal still remains.				
Note 3: Planning and Evaluation activities split into separate budget line items.				
Note 4: Residential HVAC program renamed "Home Energy Solutions" and is comprised of HVAC, Duct Sealing, Lighting, Energy Conservation Loan and Residential Audits.				
Note 5: Includes ISO Load Response Curtailment, ISO Load Response Emergency Generation, No Third Party, Reduced Supplemental Payments				
Note 6: ISO-NE Load Response Curtailment and Emergency Generation ended May 31, 2010				

CL&P 2011 C&LM Budget and Parity Analysis  
Table A Pie Chart



Customer Class	Budget	% of Total C&LM Budget	% of Residential & C&I Budget	% of Residential & C&I Revenue	Difference
Res. Income Eligible	\$10,527,047	12.56%	14.02%	13.05%	0.97%
Res. Non Income Eligible	\$23,781,295	27.95%	31.68%	32.63%	-0.94%
<b>Residential Subtotal</b>	<b>\$34,308,342</b>	<b>40.29%</b>	<b>45.71%</b>	<b>45.68%</b>	<b>0.03%</b>
C&I Small/Med	\$18,502,805	21.75%	24.65%	24.66%	-0.01%
C&I Large	\$22,252,271	26.13%	29.64%	29.66%	-0.02%
<b>C&amp;I Subtotal</b>	<b>\$40,755,076</b>	<b>47.86%</b>	<b>54.29%</b>	<b>54.32%</b>	<b>-0.03%</b>
<b>Residential and C&amp;I Subtotal</b>	<b>\$75,063,418</b>	<b>88.16%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>0.00%</b>
<i>Other Expenditures</i>					
Other Expenditures	\$10,085,671	11.84%			
<b>Other Expenditures Subtotal</b>	<b>\$10,085,671</b>	<b>11.84%</b>			
<b>C&amp;LM TOTAL</b>	<b>\$85,149,089</b>	<b>100.00%</b>			
				<b>C&amp;I Non-Gov't Revenue</b>	
				Budget	54.29%
				Revenue	54.32%

Note - Municipalities and state facilities are eligible to participate in C&I Program offerings as applicable.

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**TABLE B  
CL&P 2011 COMPARISON OF CONSERVATION PROGRAMS**

COMPARISON OF CL&P CONSERVATION PROGRAMS FOR 2011																	
Program	Utility Costs (000)	Customer Costs (000)	Total Resource Costs (000)	Electric System Benefit (000)	Total Resource Benefit (000)	Electric System B/C Ratio	Total Resource B/C Ratio	Sitewide Total Resource B/C Ratio	# of Units	Units	Annualized Savings (MWh)	Lifetime Savings (MWh)	kW Impact (Y/E)	Demand Cost \$/kW-yr	Demand Cost \$/kW-yr Annualize**	Cost Rate \$/kWh	Utility Cost Ratio \$/LT-kWh**
<b>RESIDENTIAL</b>																	
Residential Retail Products Note 1	\$ 6,133	\$ 5,394	\$ 11,527	\$ 46,314	\$ 67,400	7.6	5.8	6.1	3,023,005	Products	115,565	444,923	8,691	\$ 706	\$ 183	\$ 0.053	0.014
Appliance Rebate Program	\$ -	\$ -	\$ -	\$ -	\$ -												
<b>Total - Consumer Products</b>	<b>\$ 6,133</b>	<b>\$ 5,394</b>	<b>\$ 11,527</b>	<b>\$ 46,314</b>	<b>\$ 67,400</b>	<b>7.6</b>	<b>5.8</b>	<b>6.1</b>			<b>115,565</b>	<b>444,923</b>	<b>8,691</b>	<b>\$ 706</b>	<b>\$ 183</b>	<b>\$ 0.053</b>	<b>0.014</b>
Residential New Construction	\$ 1,480	\$ 686	\$ 2,146	\$ 2,867	\$ 3,354	1.8	1.6	1.4	609	Homes	2,175	27,693	523	\$ 2,791	\$ 220	\$ 0.671	0.053
Home Energy Solutions (HVAC, Duct Sealing, Lighting) Note 2	\$ 11,749	\$ 13,434	\$ 25,183	\$ 21,791	\$ 55,901	1.9	2.2	2.2	19,376	Cust/HVAC Rebates	20,347	236,498	3,584	\$ 3,278	\$ 282	\$ 0.577	0.050
HES Income Eligible	\$ 10,527	\$ 387	\$ 10,914	\$ 13,139	\$ 27,688	1.2	2.5	2.5	14,471	Customers	16,734	130,346	1,677	\$ 6,277	\$ 806	\$ 0.629	0.081
<b>Subtotal Residential</b>	<b>\$ 29,869</b>	<b>\$ 19,900</b>	<b>\$ 49,770</b>	<b>\$ 83,911</b>	<b>\$ 154,344</b>	<b>2.8</b>	<b>3.1</b>	<b>3.0</b>			<b>154,822</b>	<b>839,349</b>	<b>14,476</b>	<b>\$ 2,063</b>	<b>\$ 381</b>	<b>\$ 0.193</b>	<b>0.036</b>
<b>COMMERCIAL &amp; INDUSTRIAL</b>																	
<b>C&amp;I LOST OPPORTUNITY</b>																	
Energy/Conscious Blueprint	\$ 8,760	\$ 1,629	\$ 10,389	\$ 33,030	\$ 40,020	3.8	3.9	2.9	444	Customers	22,949	362,214	4,237	\$ 2,087	\$ 131	\$ 0.382	0.024
<b>Total - Lost Opportunity</b>	<b>\$ 8,760</b>	<b>\$ 1,629</b>	<b>\$ 10,389</b>	<b>\$ 33,030</b>	<b>\$ 40,020</b>	<b>3.8</b>	<b>3.9</b>	<b>2.9</b>			<b>22,949</b>	<b>362,214</b>	<b>4,237</b>	<b>\$ 2,067</b>	<b>\$ 131</b>	<b>\$ 0.382</b>	<b>0.024</b>
<b>C&amp;I LARGE RETRO FIT</b>																	
Energy Opportunities	\$ 12,716	\$ 11,651	\$ 24,367	\$ 42,592	\$ 51,274	3.3	2.1	2.1	547	Customers	35,995	439,701	4,710	\$ 2,700	\$ 221	\$ 0.353	0.029
O&M (Services, RetroCA, BSC) Note 3	\$ 4,278	\$ 3,343	\$ 7,621	\$ 16,019	\$ 19,935	3.7	2.6	2.3	77	Customers	16,847	154,182	1,871	\$ 2,286	\$ 250	\$ 0.254	0.028
PRIME	\$ 488	\$ 96	\$ 584	\$ 769	\$ 11,180	1.6	19.2	16.5	50	Customers	1,397	6,935	-	N/A	N/A	\$ 0.352	0.070
<b>Large - C&amp;I Retrofit</b>	<b>\$ 17,482</b>	<b>\$ 15,089</b>	<b>\$ 32,571</b>	<b>\$ 59,370</b>	<b>\$ 82,389</b>	<b>3.4</b>	<b>2.5</b>	<b>2.4</b>	<b>674</b>		<b>54,229</b>	<b>600,817</b>	<b>6,581</b>	<b>\$ 2,656</b>	<b>\$ 240</b>	<b>\$ 0.322</b>	<b>0.029</b>
Small Business	\$ 10,638	\$ 10,088	\$ 20,726	\$ 37,765	\$ 45,493	3.6	2.2	2.1	1,103	Customers	33,135	387,693	5,124	\$ 2,076	\$ 177	\$ 0.321	0.027
<b>Subtotal C&amp;I</b>	<b>\$ 36,879</b>	<b>\$ 26,786</b>	<b>\$ 63,666</b>	<b>\$ 130,165</b>	<b>\$ 167,901</b>	<b>3.5</b>	<b>2.6</b>	<b>2.4</b>			<b>110,313</b>	<b>1,350,715</b>	<b>15,943</b>	<b>\$ 2,313</b>	<b>\$ 189</b>	<b>\$ 0.334</b>	<b>0.027</b>
<b>OTHER - EDUCATION *</b>																	
SmartLiving Center® - Museum Partnerships	\$ 400	\$ -	\$ 400	\$ -	\$ -												
EE Communities / Behavior Pilot	\$ 850	\$ -	\$ 850	\$ -	\$ -												
K-8 Education	\$ 225	\$ -	\$ 225	\$ -	\$ -												
<b>Subtotal Education</b>	<b>\$ 1,475</b>	<b>\$ -</b>	<b>\$ 1,475</b>	<b>\$ -</b>	<b>\$ -</b>												
<b>OTHER - PROGRAMS/REQUIREMENTS</b>																	
Institute for Sustainable Energy (ECSU)	\$ 400	\$ -	\$ 400	\$ -	\$ -												
Other Funding Requests	\$ -	\$ -	\$ -	\$ -	\$ -												
Residential Loan Program	\$ 3,150	\$ -	\$ 3,150	\$ -	\$ -												
C&I Loan Program	\$ 475	\$ -	\$ 475	\$ -	\$ -												
C&I Loan Defaults	\$ 135	\$ -	\$ 135	\$ -	\$ -												
<b>Total Other Programs/Requirements</b>	<b>\$ 4,160</b>	<b>\$ -</b>	<b>\$ 4,160</b>	<b>\$ -</b>	<b>\$ -</b>												

**TABLE B  
CL&P 2011 COMPARISON OF CONSERVATION PROGRAMS**

COMPARISON OF CL&P CONSERVATION PROGRAMS FOR 2011																	
Program	Utility Costs (000)	Customer Costs (000)	Total Resource Costs (000)	Electric System Benefit (000)	Total Resource Benefit (000)	Electric System B/C Ratio	Total Resource B/C Ratio	Statewide Total Resource B/C Ratio	# of Units	Units	Annualized Savings (MWh)	Lifetime Savings (MWh)	kW Impact (VE)	Demand Cost \$/kW**	Demand Cost \$/kW-yr**	Cost Rate \$/kWh Annualize**	Utility Cost Ratio \$/LT-kWh**
<b>OTHER - LOAD MANAGEMENT</b>																	
ISO Load Response Program	\$ 3,000	\$ (0)	\$ 3,000	\$ 3,000	\$ 3,000	1.0	1.0		420	Customers	-	-	110,000	\$ 27	\$ 27	N/A	N/A
<b>Subtotal Load Management</b>	<b>\$ 3,000</b>	<b>\$ (0)</b>	<b>\$ 3,000</b>	<b>\$ 3,000</b>	<b>\$ 3,000</b>	<b>1.0</b>	<b>1.0</b>				<b>-</b>	<b>-</b>	<b>110,000</b>	<b>\$ 27</b>	<b>\$ 27</b>		
<b>OTHER - RENEWABLES &amp; RD&amp;D</b>																	
Research, Development & Demonstration	\$ 200	\$ -	\$ 200														
<b>Subtotal Renewables &amp; RD&amp;D</b>	<b>\$ 200</b>	<b>\$ -</b>	<b>\$ 200</b>	<b>\$ -</b>													
<b>OTHER - ADMINISTRATIVE &amp; PLANNING</b>																	
Administration	\$ 900																
General Awareness	\$ 80																
Planning and Evaluation	\$ 2,450																
Information Technology	\$ 1,700																
Energy Efficiency Board	\$ 400																
Performance Management Fee	\$ 4,036																
<b>Subtotal Admin/Planning Expenditures</b>	<b>\$ 9,566</b>																
<b>PROGRAM SUBTOTALS</b>																	
Residential	\$ 34,308										154,822	839,349	14,476				
C&I	\$ 40,755										110,313	1,350,715	15,943				
Other*	\$ 10,086										-	-	110,000				
<b>TOTAL C&amp;I/M BUDGET</b>	<b>\$ 85,149</b>	<b>\$ 46,687</b>	<b>\$ 122,270</b>	<b>\$ 217,076</b>	<b>\$ 325,245</b>	<b>2.5</b>	<b>2.7</b>				<b>265,135</b>	<b>2,190,064</b>	<b>140,418</b>	<b>\$ 2,701</b>	<b>\$ 327</b>	<b>\$ 0.321</b>	<b>\$ 0.039</b>

\* OTHER - includes ISE/ESU, RD&D, Admin, Planning & Evaluation, IT, ECMB and PMF  
 \*\* Total Ratio Columns exclude ISO-NE Load Response  
 Note 1: Beginning in 2006, Retail Lighting and ENERGY STAR Appliances were combined into one program - Residential Retail Products.  
 Note 2: Residential HVAC program renamed "Home Energy Solutions" and is comprised of HVAC, Duct Sealing, Lighting, Energy Conservation Loan and Residential Audits.  
 Note 3: O&M Services includes RetroCx, BSC budget and associated savings.  
 General Note: Costs and benefits associated with the gas programs that are delivered integrated with the electric programs are not included in the TRC analysis of the 2010 electric programs.  
 Gas program costs and benefits for integrated delivery programs were included in the 2011 Gas Plan.

**TABLE B1  
CL&P 2011 COMPARISON OF PROGRAM BENEFITS**

Program	Rate Impact (Program Costs less DRIPE)	Electric System				Non-Electric Benefits				Total Benefits
		Energy Benefits	Capacity Benefits	DRIPE	Electric System Benefits	Resource Benefits	Non-Resource Benefits	Emissions Benefits	Total Non- Electric Benefits	Total Resource Benefits 2008
	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)
<b>RESIDENTIAL</b>										
Residential Retail Products Note 1	\$ (5,672)	\$ 32,614	\$ 1,895	\$ 11,805	\$ 46,314	\$ -	\$ 7,655	\$ 13,431	\$ 21,086	\$ 67,400
Appliance Rebate Program	\$ -									
<b>Total - Consumer Products</b>	<b>\$ (5,672)</b>	<b>\$ 32,614</b>	<b>\$ 1,895</b>	<b>\$ 11,805</b>	<b>\$ 46,314</b>	<b>\$ -</b>	<b>\$ 7,655</b>	<b>\$ 13,431</b>	<b>\$ 21,086</b>	<b>\$ 67,400</b>
Residential New Construction	\$ 1,102	\$ 1,746	\$ 563	\$ 358	\$ 2,667	\$ 151	\$ 3	\$ 534	\$ 688	\$ 3,354
Home Energy Solutions (HVAC, Duct Sealing, Lighting) Note 2	\$ 8,392	\$ 16,008	\$ 2,425	\$ 3,358	\$ 21,791	\$ 28,001	\$ 1,037	\$ 5,073	\$ 34,110	\$ 55,901
HES Income Eligible	\$ 7,905	\$ 9,855	\$ 662	\$ 2,622	\$ 13,139	\$ 10,675	\$ 423	\$ 3,451	\$ 14,549	\$ 27,688
<b>Subtotal Residential</b>	<b>\$ 11,727</b>	<b>\$ 60,223</b>	<b>\$ 5,545</b>	<b>\$ 18,143</b>	<b>\$ 83,911</b>	<b>\$ 38,827</b>	<b>\$ 9,118</b>	<b>\$ 22,488</b>	<b>\$ 70,433</b>	<b>\$ 154,344</b>
<b>COMMERCIAL &amp; INDUSTRIAL</b>										
<b>C&amp;I LOST OPPORTUNITY</b>										
Energy Conscious Blueprint	\$ 4,037	\$ 25,277	\$ 3,030	\$ 4,723	\$ 33,030	\$ (492)	\$ 237	\$ 7,246	\$ 6,990	\$ 40,020
<b>Total - Lost Opportunity</b>	<b>\$ 4,037</b>	<b>\$ 25,277</b>	<b>\$ 3,030</b>	<b>\$ 4,723</b>	<b>\$ 33,030</b>	<b>\$ (492)</b>	<b>\$ 237</b>	<b>\$ 7,246</b>	<b>\$ 6,990</b>	<b>\$ 40,020</b>
<b>C&amp;I LARGE RETRO FIT</b>										
Energy Opportunities	\$ 5,578	\$ 32,802	\$ 2,642	\$ 7,138	\$ 42,582	\$ (2,124)	\$ 843	\$ 9,972	\$ 8,692	\$ 51,274
O&M (Services, RetroCx, BSC) Note 3	\$ 1,083	\$ 11,972	\$ 852	\$ 3,195	\$ 16,019	\$ (95)	\$ 38	\$ 3,973	\$ 3,916	\$ 19,935
PRIME	\$ 292	\$ 573	\$ -	\$ 197	\$ 769	\$ -	\$ 10,190	\$ 220	\$ 10,411	\$ 11,180
<b>Large - C&amp;I Retrofit</b>	<b>\$ 6,953</b>	<b>\$ 45,346</b>	<b>\$ 3,495</b>	<b>\$ 10,529</b>	<b>\$ 59,370</b>	<b>\$ (2,219)</b>	<b>\$ 11,072</b>	<b>\$ 14,166</b>	<b>\$ 23,019</b>	<b>\$ 82,389</b>
Small Business	\$ 4,113	\$ 28,489	\$ 2,751	\$ 6,525	\$ 37,765	\$ (2,193)	\$ 873	\$ 9,047	\$ 7,727	\$ 45,493
<b>Subtotal C&amp;I</b>	<b>\$ 15,103</b>	<b>\$ 99,112</b>	<b>\$ 9,276</b>	<b>\$ 21,776</b>	<b>\$ 130,165</b>	<b>\$ (4,904)</b>	<b>\$ 12,181</b>	<b>\$ 30,459</b>	<b>\$ 37,736</b>	<b>\$ 167,901</b>
<b>OTHER - LOAD MANAGEMENT</b>										
ISO Load Response Program	\$ 3,000	\$ -	\$ 3,000	\$ -	\$ 3,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000
Power Factor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Subtotal Load Management</b>	<b>\$ 3,000</b>	<b>\$ -</b>	<b>\$ 3,000</b>	<b>\$ -</b>	<b>\$ 3,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,000</b>
Other (Educational, Other Programs/Requirements, RD&D, Admin & Planning)	15,401	-	-	-	-	-	\$ -	\$ -	\$ -	\$ -
<b>TOTAL C&amp;LM</b>	<b>\$ 45,230</b>	<b>\$ 159,335</b>	<b>\$ 17,821</b>	<b>\$ 39,919</b>	<b>\$ 217,076</b>	<b>\$ 33,923</b>	<b>\$ 21,299</b>	<b>\$ 52,947</b>	<b>\$ 108,170</b>	<b>\$ 325,245</b>

Note 1: Beginning in 2006, Retail Lighting and ENERGY STAR Appliances were combined into one program - Residential Retail Products.

Note 2: Residential HVAC program renamed "CT Home Energy Solutions" and is comprised of HVAC, Duct Sealing, Lighting, Energy Conservation Loan and Residential Audits.

Note 3: O&M Services includes RetroCx budget, BSC, and associated savings.

General Note: Costs and benefits associated with the gas programs that are delivered integrated with the electric programs are not included in the Total Resource Cost (TRC) analysis of the 2011 electric programs.

Gas program costs and benefits for integrated delivery programs were included in the 2011 Gas Plan.

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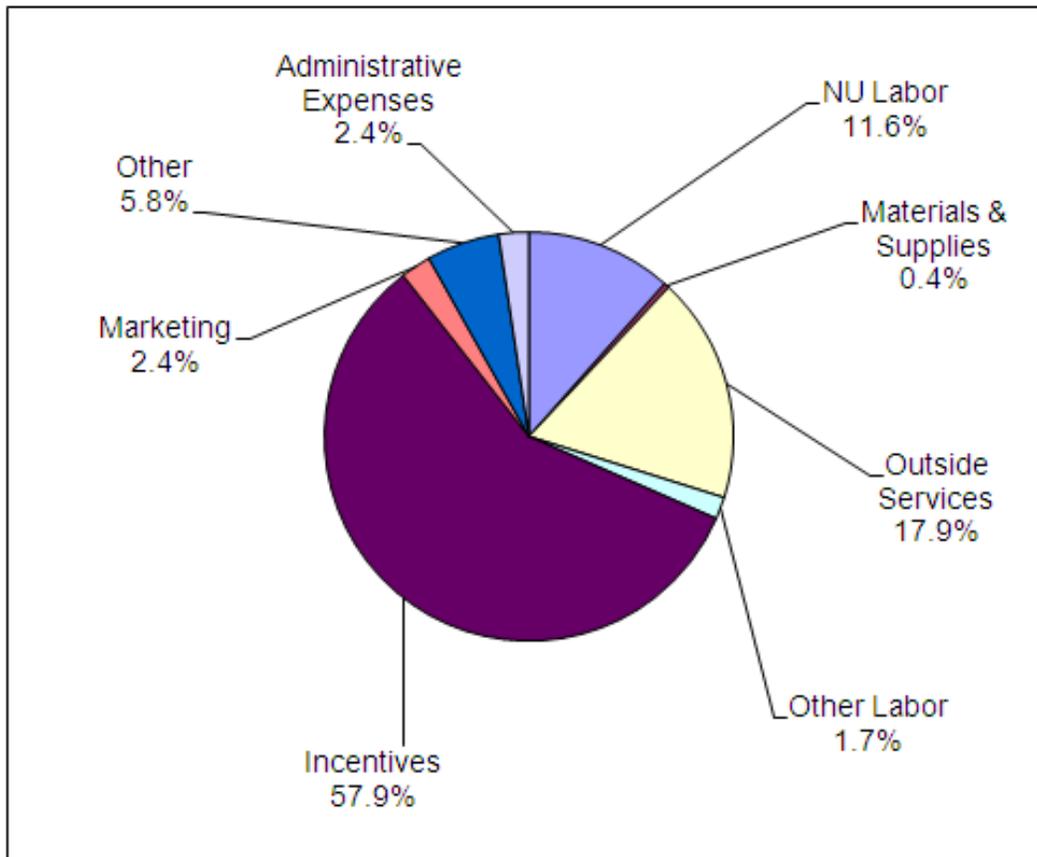
**Table C  
CL&P 2011 C&LM Budget Details**

CL&P C&LM BUDGET (\$000)	CL&P Labor	Materials & Supplies	Outside Services	Contractor Labor	Incentives	Marketing	Other **	Administrative Expenses	TOTAL
Residential Retail Products	\$ 176	\$ 2	\$ 1,053	\$0	\$ 4,163	\$ 689	\$ 30	\$ 20	\$ 6,133
Appliance Rebate Program									\$ -
<b>Total - Consumer Products</b>	<b>\$176</b>	<b>\$2</b>	<b>\$1,053</b>	<b>\$0</b>	<b>\$4,163</b>	<b>\$689</b>	<b>\$30</b>	<b>\$20</b>	<b>\$ 6,133</b>
Residential New Construction	\$ 200	\$ 3	\$ 150	\$ -	\$ 1,059	\$ 40	\$ -	\$ 8	\$ 1,460
Home Energy Solutions (HVAC, Duct Sealing, Lighting)	\$ 869	\$ 28	\$ 2,092	\$ -	\$ 8,225	\$ 400	\$ 95	\$ 40	\$ 11,749
HES Income Eligible	\$ 911	\$ 30	\$ 1,150	\$ -	\$ 8,043	\$ 275	\$ 50	\$ 68	\$ 10,527
<b>Subtotal Residential</b>	<b>\$ 2,156</b>	<b>\$ 63</b>	<b>\$ 4,445</b>	<b>\$ -</b>	<b>\$ 21,490</b>	<b>\$ 1,404</b>	<b>\$ 175</b>	<b>\$ 136</b>	<b>\$ 29,869</b>
<b>COMMERCIAL &amp; INDUSTRIAL</b>									
<b>C &amp; I LOST OPPORTUNITY</b>									
Energy Conscious Blueprint	\$ 1,053	\$ 11	\$ 900	\$ 383	\$ 6,194	\$ 100	\$ 70	\$ 48	\$ 8,759
<b>Total - Lost Opportunity</b>	<b>\$ 1,053</b>	<b>\$ 11</b>	<b>\$ 900</b>	<b>\$ 383</b>	<b>\$ 6,194</b>	<b>\$ 100</b>	<b>\$ 70</b>	<b>\$ 48</b>	<b>\$ 8,759</b>
<b>C &amp; I LARGE RETROFIT</b>									
Energy Opportunities	\$ 1,813	\$ 20	\$ 500	\$ 599	\$ 9,477	\$ 164	\$ 18	\$ 125	\$ 12,716
O&M (Service, RetroCx, BSC)	\$ 806	\$ 10	\$ 642	\$ 60	\$ 2,642	\$ 66	\$ 15	\$ 37	\$ 4,278
PRIME	\$ 60	\$ 2	\$ 10	\$ -	\$ 383	\$ 20	\$ 3	\$ 10	\$ 488
<b>Total - C&amp;I Large Retrofit</b>	<b>\$ 2,679</b>	<b>\$ 32</b>	<b>\$ 1,152</b>	<b>\$ 658</b>	<b>\$ 12,502</b>	<b>\$ 250</b>	<b>\$ 36</b>	<b>\$ 172</b>	<b>\$ 17,482</b>
Small Business	\$ 841	\$ 10	\$ 200	\$ 173	\$ 7,797	\$ 100	\$ 17	\$ 1,500	\$ 10,637
<b>Subtotal C&amp;I</b>	<b>\$ 4,573</b>	<b>\$ 53</b>	<b>\$ 2,252</b>	<b>\$ 1,214</b>	<b>\$ 26,493</b>	<b>\$ 450</b>	<b>\$ 123</b>	<b>\$ 1,720</b>	<b>\$ 36,878</b>
<b>OTHER - EDUCATION</b>									
SmartLiving Center® - Museum Partnerships	\$ 21	\$ 10	\$ 354	\$ -	\$ -	\$ 15	\$ -	\$ -	\$ 400
EE Communities / Behavior Pilot	\$ 146	\$ -	\$ 620	\$ -	\$ -	\$ 80	\$ 2	\$ 2	\$ 850
K-8 Education	\$ 85	\$ 3	\$ 130	\$ -	\$ -	\$ 4	\$ -	\$ -	\$ 225
<b>Subtotal Education</b>	<b>\$ 253</b>	<b>\$ 13</b>	<b>\$ 1,104</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 99</b>	<b>\$ 2</b>	<b>\$ 5</b>	<b>\$ 1,476</b>
<b>OTHER - PROGRAMS/REQUIREMENTS</b>									
Institute for Sustainable Energy (ECSU)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 400	\$ -	\$ 400
Other Funding Requests									\$ -
Residential Loan Program	\$ 30	\$ -	\$ 3,120	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,150
C&I Loan Program	\$ -	\$ -	\$ 475	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 475
C&LM Loan Defaults	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 135	\$ -	\$ 135
<b>Subtotal Programs/Requirements</b>	<b>\$ 30</b>	<b>\$ -</b>	<b>\$ 3,595</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 535</b>	<b>\$ -</b>	<b>\$ 4,160</b>
<b>OTHER - LOAD MANAGEMENT</b>									
ISO Load Response Program	\$ 500	\$ 5	\$ 1,000	\$ 173	\$ 1,300	\$ 10	\$ -	\$ 12	\$ 3,000
Power Factor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Subtotal Load Management</b>	<b>\$ 500</b>	<b>\$ 5</b>	<b>\$ 1,000</b>	<b>\$ 173</b>	<b>\$ 1,300</b>	<b>\$ 10</b>	<b>\$ -</b>	<b>\$ 12</b>	<b>\$ 3,000</b>
<b>OTHER - RENEWABLES &amp; RD&amp;D</b>									
Research, Development & Demonstration	\$ 74	\$ 2	\$ 119	\$ -	\$ -	\$ -	\$ -	\$ 5	\$ 200
<b>Subtotal Renewables &amp; RD&amp;D</b>	<b>\$ 74</b>	<b>\$ 2</b>	<b>\$ 119</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 5</b>	<b>\$ 200</b>
<b>OTHER - ADMINISTRATIVE &amp; PLANNING</b>									
Administration	\$ 765	\$ 8	\$ -	\$ 44	\$ -	\$ -	\$ 30	\$ 53	\$ 900
General Awareness	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 80	\$ -	\$ -	\$ 80
Planning	\$ 627	\$ 6	\$ -	\$ -	\$ -	\$ -	\$ 9	\$ 8	\$ 650
Evaluation	\$ 116	\$ 5	\$ 1,616	\$ 53	\$ -	\$ -	\$ 5	\$ 5	\$ 1,800
Information Technology	\$ 745	\$ 200	\$ 675	\$ -	\$ -	\$ -	\$ -	\$ 80	\$ 1,700
Energy Efficiency Board	\$ -	\$ -	\$ 400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 400
Performance Management Fee	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,036	\$ -	\$ 4,036
<b>Subtotal Admin/Planning Expenditures</b>	<b>\$ 2,253</b>	<b>\$ 219</b>	<b>\$ 2,691</b>	<b>\$ 97</b>	<b>\$ -</b>	<b>\$ 80</b>	<b>\$ 4,080</b>	<b>\$ 146</b>	<b>\$ 9,566</b>
<b>PROGRAM SUBTOTALS</b>									
<b>Residential</b>	<b>\$ 2,405</b>	<b>\$ 74</b>	<b>\$ 8,474</b>	<b>\$ -</b>	<b>\$ 21,490</b>	<b>\$ 1,548</b>	<b>\$ 177</b>	<b>\$ 141</b>	<b>\$ 34,309</b>
<b>C&amp;I</b>	<b>\$ 5,106</b>	<b>\$ 60</b>	<b>\$ 3,922</b>	<b>\$ 1,387</b>	<b>\$ 27,793</b>	<b>\$ 495</b>	<b>\$ 258</b>	<b>\$ 1,732</b>	<b>\$ 40,754</b>
<b>Other*</b>	<b>\$ 2,327</b>	<b>\$ 221</b>	<b>\$ 2,810</b>	<b>\$ 97</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 4,480</b>	<b>\$ 151</b>	<b>\$ 10,086</b>
<b>TOTAL C&amp;LM BUDGET</b>	<b>\$ 9,838</b>	<b>\$ 355</b>	<b>\$15,206</b>	<b>\$ 1,484</b>	<b>\$ 49,283</b>	<b>\$ 2,043</b>	<b>\$ 4,915</b>	<b>\$ 2,024</b>	<b>\$ 85,149</b>

\* Other - includes ISE/ECSU, RD&D, Admin, Planning & Evaluation, and IT

\*\* Other includes Performance Management Fee, ECSU, Energy Conservation Loan Fund, Loan Defaults, Dues, Postage.

**CL&P**  
**2011 CONSERVATION & LOAD MANAGEMENT**  
**C&LM Budget By Expense Class**  
**Table C Pie Chart**



<u>Expense Classes</u>	<u>Budget</u>	<u>% of Budget</u>
NU Labor	\$ 9,838	11.6%
Materials & Supplies	\$ 355	0.4%
Outside Services	\$ 15,206	17.9%
Other Labor	\$ 1,484	1.7%
Incentives	\$ 49,283	57.9%
Marketing	\$ 2,043	2.4%
Other	\$ 4,915	5.8%
Administrative Expenses	\$ 2,024	2.4%
	\$ 85,149	100.00%

Table D  
CL&P Historical and Projected S and kW

	Expenditures \$											2011 Budget						
	2003 Actual	2004 Actual	2005 Actual	2006 Actual	2007 Actual	2008 Actual	2009 Actual	2010 Budget	2011 Budget	2003 Actual	2004 Actual		2005 Actual	2006 Actual	2007 Actual	2008 Actual	2009 Actual	2010 Budget
<b>RESIDENTIAL</b>																		
Retail Products Note 1	3,154,881	6,001,655	6,440,289	5,626,761	5,961,939	4,903,424	3,223,833	6,600,000	6,132,901									
Appliance Rebate Program	1,446,975	2,034,265	1,188,636		266,935			2,687,200										
Customer Initiated Projects		244,933	329,182															
<b>Total - Consumer Products</b>	<b>3,154,881</b>	<b>7,693,563</b>	<b>8,803,716</b>	<b>6,815,397</b>	<b>5,961,939</b>	<b>5,172,359</b>	<b>3,223,833</b>	<b>11,287,200</b>	<b>6,132,901</b>									
Residential New Construction Note 2	1,115,726	767,514	1,187,496	1,688,185	1,414,189	1,565,659	494,394	2,500,000	1,460,024									
Home Energy Solutions (HVAC, Diet Sealing, Lighting) Note 3	1,462,685	1,438,871	2,029,389	4,313,563	5,467,875	7,949,519	19,315,600	17,749,370										
HES Income Eligible	3,180,815	4,590,734	4,682,547	5,288,338	7,113,363	7,035,693	7,758,362	11,400,000	10,527,047									
<b>Subtotal Residential</b>	<b>8,914,107</b>	<b>14,490,682</b>	<b>16,703,948</b>	<b>18,115,783</b>	<b>19,956,366</b>	<b>20,939,578</b>	<b>49,226,108</b>	<b>44,502,800</b>	<b>29,869,342</b>									
<b>COMMERCIAL &amp; INDUSTRIAL</b>																		
<b>C&amp;I LOST OPPORTUNITY</b>																		
Energy Consensus Blueprint Note 4	10,410,843	14,479,658	12,468,319	9,448,615	13,084,740	18,460,585	6,756,126	13,400,000	8,759,606									
<b>Total - Lost Opportunity</b>	<b>10,410,843</b>	<b>14,479,658</b>	<b>12,468,319</b>	<b>9,448,615</b>	<b>13,084,740</b>	<b>18,460,585</b>	<b>6,756,126</b>	<b>13,400,000</b>	<b>8,759,606</b>									
<b>C&amp;I LARGE RETROFIT</b>																		
C&I REP	2,049,863	4,037,727	9,176,612	9,081,115	22,928,130	29,565,748	10,331,492	23,150,000	12,715,750									
Energy Opportunities Note 5	766,397	777,245	1,026,898	1,455,302	1,111,822	1,929,890	1,100,065	3,099,935	4,277,740									
O&M (Service, Renocv, BSC)	450,905	933,762	1,833,065															
PRIME Note 6						394,290		505,798	488,087									
Municipal Energy & Schools Note 7	2,288,449	6,718,380	4,401,007															
<b>Total - C&amp;I Large Retrofit</b>	<b>5,585,614</b>	<b>12,467,614</b>	<b>16,487,522</b>	<b>10,516,417</b>	<b>24,041,952</b>	<b>31,495,638</b>	<b>11,725,847</b>	<b>26,755,733</b>	<b>17,481,577</b>									
Small Business	2,167,157	3,263,609	2,710,538	7,497,147	10,204,353	11,390,772	4,579,517	10,890,207	10,637,893									
<b>Subtotal C&amp;I</b>	<b>18,133,614</b>	<b>30,210,881</b>	<b>31,616,379</b>	<b>27,462,179</b>	<b>47,331,045</b>	<b>61,346,995</b>	<b>23,361,491</b>	<b>51,045,939</b>	<b>36,879,076</b>									
<b>OTHER EDUCATION</b>																		
Smart Living Center	292,526	61,519	80,760	86,739	207,200	107,047	92,465	525,000	400,000									
Center			200,000	207,200	67,142	214,403	207,171											
EE/Smarts* (K - 12 Education)	249,053	61,542	242,897	159,887	232,784	208,451	197,076	400,000	225,000									
EE Communities / Behavior Pilot							46,308	750,000	850,000									
Community Based Program (SWCT)	73,081	96,251	168,371	201,382	212,080													
<b>Subtotal Education</b>	<b>614,660</b>	<b>219,312</b>	<b>692,028</b>	<b>655,308</b>	<b>719,206</b>	<b>529,901</b>	<b>543,021</b>	<b>1,675,000</b>	<b>1,475,000</b>									
<b>OTHER PROGRAMS REQUIREMENTS</b>																		
Institute for Sustainable Energy (ECSU)	950,000	716,000	404,391	242,000	240,800	320,000	400,000	400,000	400,000									
Residential Loan Program							18,285	4,350,000	3,150,000									
C&I Loan Program							9,654	1,250,000	475,000									
Other Funding Requests								325,600										
C&I Loan Defaults								150,000	135,000									
<b>Subtotal Other Programs Requirements</b>	<b>950,000</b>	<b>855,710</b>	<b>532,517</b>	<b>313,592</b>	<b>297,267</b>	<b>357,923</b>	<b>533,741</b>	<b>6,475,600</b>	<b>4,160,000</b>									
<b>OTHER - LOAD MANAGEMENT</b>																		
ISO Load Response Program	2,436,621	140,233	1,411,769	1,241,601	491,060	456,025	102,909	6,000,000	3,000,000									
Demand Reduction Note 8			118,454	62,067	12,663	9,513												
Power Factor			33,000	477,007	123,615	144,901	64,128											
Wait Until 8:00			209,639	100,000														
<b>Subtotal Load Management</b>	<b>2,436,621</b>	<b>501,226</b>	<b>2,050,843</b>	<b>1,837,879</b>	<b>645,474</b>	<b>520,153</b>	<b>102,909</b>	<b>6,000,000</b>	<b>3,000,000</b>									
<b>OTHER - RENEWABLES &amp; RD&amp;D</b>																		
Renewables Incentives			7,898	3,019														
Research, Development & Demonstration	1,721,485	1,117,495	635,897	(22,769)	131,220	114,559	75,087	274,000	200,000									
<b>Subtotal Renewables &amp; RD&amp;D</b>	<b>1,721,485</b>	<b>1,125,993</b>	<b>638,616</b>	<b>(22,769)</b>	<b>131,220</b>	<b>114,559</b>	<b>75,087</b>	<b>274,000</b>	<b>200,000</b>									
<b>OTHER - ADMINISTRATIVE &amp; PLANNING</b>																		
Administration	2,530,603	852,550	504,317	738,465	663,411	586,204	717,757	1,062,313	900,000									
General Services			284,119	67,000	130,292	33,618	5,804	160,000	80,000									
Planning and Evaluation	812,535	827,709	2,088,477	1,138,317	750,975	1,433,813	1,617,773	2,860,000	2,450,000									
Information Technology	307,548	701,153	1,812,338	1,656,432	1,656,204	1,286,936	1,931,000	1,700,000										
Energy Efficiency Board	247,321	98,984	316,021	255,176	309,122	476,793	368,509	500,000	400,000									
Audit			294,459															
Performance Management Fee	2,180,501	3,937,752	3,866,518	4,056,741	4,788,385	3,903,735	2,239,767	5,799,330	4,035,671									
<b>Admin Planning Expenditures</b>	<b>5,878,508</b>	<b>6,418,238</b>	<b>8,085,733</b>	<b>8,058,387</b>	<b>8,598,617</b>	<b>8,040,397</b>	<b>6,248,547</b>	<b>12,312,573</b>	<b>9,565,671</b>									
<b>PROGRAM SUB-TOTALS</b>																		
<b>Residential</b>																		
C&I	9,455,646	14,888,079	17,632,785	18,725,643	20,914,521	21,408,083	19,922,869	50,400,800	34,308,342									
Other Note 9	20,613,356	30,673,832	33,842,058	29,024,118	48,215,139	61,970,085	58,732,939	40,755,076										
<b>Total (includes ISO Load Response)</b>	<b>38,649,095</b>	<b>53,821,542</b>	<b>60,309,644</b>	<b>55,960,829</b>	<b>77,669,195</b>	<b>91,849,506</b>	<b>50,290,904</b>	<b>122,285,911</b>	<b>85,149,089</b>									
<b>TOTAL (excludes ISO Load Response)</b>	<b>36,212,474</b>	<b>53,681,309</b>	<b>48,897,395</b>	<b>54,719,228</b>	<b>77,178,135</b>	<b>91,393,481</b>	<b>50,187,995</b>	<b>116,285,911</b>	<b>82,149,089</b>									

Note 1: Includes Residential Lighting, Smart Living Catalog and Clothes Washers programs.  
 Note 2: Includes demand savings from the GEO Thermal Heat Pump and Heat Pump Water Heater programs.  
 Note 3: Includes demand savings from the Energy Conservation Loan and Residential Audits.  
 Note 4: Includes demand savings from the Custom Services Program.  
 Note 5: Includes demand savings from the Energy Services Program.  
 Note 6: Previously included in Energy Consensus Blueprint.  
 Note 7: Includes demand savings from the State Buildings programs.  
 Note 8: Included in Energy Opportunities.  
 Note 9: ISO Load Management Program Load Savings kW are included in yearly totals.

**Table D1  
CL&P Historical and Projected Annual kWh and Lifetime kWh**

	Annual Savings kWh (000's)										Lifetime Savings kWh (000's)									
	2003 Actual	2004 Actual	2005 Actual	2006 Actual	2007 Actual	2008 Actual	2009 Actual	2010 Actual	2011 Goal	2011 Goal	2003 Actual	2004 Actual	2005 Actual	2006 Actual	2007 Actual	2008 Actual	2009 Actual	2010 Actual	2011 Goal	2011 Goal
<b>RESIDENTIAL</b>																				
Retail Products Note 1	12,365	70,088	59,884	64,556	71,908	65,971	42,424	69,368	115,465		138,487	653,176	453,814	495,351	515,108	542,079	240,852	348,907	444,923	
Appliance Retrofitment		4,577	7,683	3,197		138						4,713	8,040	15,977						
Customer Initiated Projects		284																		
<b>Total - Consumer Products</b>	<b>12,365</b>	<b>74,949</b>	<b>67,993</b>	<b>67,753</b>	<b>71,908</b>	<b>66,109</b>	<b>42,424</b>	<b>69,368</b>	<b>115,565</b>		<b>138,487</b>	<b>680,266</b>	<b>499,643</b>	<b>513,328</b>	<b>515,108</b>	<b>543,004</b>	<b>240,852</b>	<b>348,907</b>	<b>444,923</b>	
Residential New Construction Note 2	1,052	547	2,551	3,449	1,510	1,536	845	2,166	2,175		21,782	9,114	34,399	43,764	19,431	19,910	12,656	37,543	27,583	
Home Energy Solutions (HVAC, Duct Sealing, Lighting) Note 3	576	1,343	1,862	5,324	7,868	9,367	6,595	28,472	20,447		10,791	25,460	34,238	60,493	89,643	107,856	85,041	341,045	236,498	
HES Income Eligible	4,971	8,554	8,757	9,604	11,163	12,495	12,135	20,927	16,734		84,526	135,997	107,224	105,089	109,864	115,014	111,730	128,657	130,345	
<b>Subtotal Residential</b>	<b>18,964</b>	<b>85,593</b>	<b>81,163</b>	<b>86,130</b>	<b>92,449</b>	<b>89,507</b>	<b>61,999</b>	<b>120,933</b>	<b>154,822</b>		<b>255,586</b>	<b>850,837</b>	<b>675,504</b>	<b>720,674</b>	<b>734,046</b>	<b>785,784</b>	<b>449,778</b>	<b>856,212</b>	<b>839,349</b>	
<b>COMMERCIAL &amp; INDUSTRIAL</b>																				
<b>C&amp;I LOST OPPORTUNITY</b>																				
Energy Conscious Blueprint Note 4	41,942	80,147	60,129	47,925	44,217	49,940	23,225	33,862	22,949		741,610	1,344,801	1,023,516	812,823	704,845	765,081	382,538	518,987	362,214	
<b>Total - Lost Opportunity</b>	<b>41,942</b>	<b>80,147</b>	<b>60,129</b>	<b>47,925</b>	<b>44,217</b>	<b>49,940</b>	<b>23,225</b>	<b>33,862</b>	<b>22,949</b>		<b>741,610</b>	<b>1,344,801</b>	<b>1,023,516</b>	<b>812,823</b>	<b>704,845</b>	<b>765,081</b>	<b>382,538</b>	<b>518,987</b>	<b>362,214</b>	
<b>C&amp;I LARGE RETROFIT</b>																				
C&I RFP	3,447	20,606	45,530	94,067	103,936	94,799	48,645	83,456	35,995		60,381	362,541	811,018	1,664,677	1,466,673	1,227,472	587,275	1,011,392	439,701	
Energy Opportunities Note 5	5,785	5,832	11,656	4,301	3,388	9,265	3,117	20,220	16,847		96,507	99,608	156,284	62,462	46,154	86,719	28,640	176,766	154,182	
O&M (Service, Retrofits, BSC)	991	3,553	9,124	4,301	3,388	9,265	1,233	4,497	1,387		10,201	38,613	101,711	62,462	46,154	86,719	28,640	176,766	154,182	
PRIME Note 6																				
Municipal Energy & Schools Note 7	6,220	4,120	15,658								98,804	69,386	269,524				6,166	22,487	6,935	
<b>Total - C&amp;I Large Retrofit</b>	<b>16,443</b>	<b>34,111</b>	<b>81,968</b>	<b>98,568</b>	<b>107,524</b>	<b>104,064</b>	<b>52,995</b>	<b>108,173</b>	<b>54,229</b>		<b>265,893</b>	<b>570,148</b>	<b>1,388,597</b>	<b>1,727,149</b>	<b>1,512,827</b>	<b>1,314,191</b>	<b>622,081</b>	<b>1,210,645</b>	<b>600,817</b>	
Small Business	13,109	19,269	13,428	32,492	37,334	37,254	23,250	30,576	33,135		221,042	328,965	233,226	561,380	468,516	457,376	275,112	372,522	387,683	
<b>Subtotal C&amp;I</b>	<b>71,494</b>	<b>133,527</b>	<b>155,525</b>	<b>178,785</b>	<b>188,875</b>	<b>191,258</b>	<b>99,470</b>	<b>172,611</b>	<b>110,313</b>		<b>1,228,545</b>	<b>2,243,914</b>	<b>2,595,279</b>	<b>3,101,242</b>	<b>2,686,188</b>	<b>2,536,648</b>	<b>1,279,730</b>	<b>2,102,154</b>	<b>1,350,715</b>	
<b>OTHER - EDUCATION</b>																				
Smart Living Center																				
Science Center																				
EESmarts* (K-12 Education)																				
EE Communities / Behavior Pilot																				
Community Based Program (SWGT)																				
<b>Subtotal Education</b>																				
<b>OTHER - PROGRAMS/REQUIREMENTS</b>																				
Institute for Sustainable Energy (ECISU)																				
Residential Loan Program																				
C&I Loan Program																				
C&I Loan Defaults																				
<b>Subtotal Other Programs/Requirements</b>																				
<b>OTHER - LOAD MANAGEMENT</b>																				
ISO Load Response Program	670										6,700									
Demand Reduction Note 8		962	130	2								9,623	1,886	25						
Power Factor																				
Watt Until 800																				
<b>Subtotal Load Management</b>	<b>670</b>	<b>962</b>	<b>130</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>		<b>6,700</b>	<b>9,623</b>	<b>1,886</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	
<b>OTHER - RENEWABLES &amp; RD&amp;D</b>																				
Renewables Incentives																				
Research, Development & Demonstration																				
<b>Subtotal Renewables &amp; RD&amp;D</b>																				
<b>OTHER - ADMINISTRATIVE &amp; PLANNING</b>																				
Administration																				
General Awareness																				
Planning and Evaluation																				
Information Technology																				
Energy Efficiency Board																				
Audit																				
Performance Management Fee																				
<b>Admin Planning Expenditures</b>																				
<b>PROGRAM SUB-TOTALS</b>																				
Residential	18,964	85,593	81,163	86,130	92,449	89,507	61,999	120,933	154,822		255,586	850,837	675,504	720,674	734,046	785,784	449,778	856,212	839,349	
C&I	72,164	134,489	155,655	178,787	188,875	191,258	99,470	172,611	110,313		1,235,245	2,253,537	2,597,165	3,101,267	2,686,188	2,536,648	1,279,730	2,102,154	1,350,715	
Other - Note 9	91,128	219,882	236,818	264,917	281,324	280,765	161,468	293,544	265,135		1,490,831	3,104,374	3,272,669	3,821,941	3,420,234	3,322,432	1,729,508	2,958,366	2,190,064	
<b>TOTAL (includes ISO Load Response)</b>	<b>181,256</b>	<b>439,964</b>	<b>473,639</b>	<b>529,834</b>	<b>562,648</b>	<b>561,530</b>	<b>322,937</b>	<b>617,088</b>	<b>530,270</b>		<b>4,077,252</b>	<b>8,458,751</b>	<b>7,948,278</b>	<b>9,323,872</b>	<b>8,840,478</b>	<b>8,644,264</b>	<b>4,208,776</b>	<b>7,916,722</b>	<b>6,380,128</b>	
<b>TOTAL (excludes ISO Load Response)</b>	<b>90,458</b>	<b>219,882</b>	<b>236,818</b>	<b>264,917</b>	<b>281,324</b>	<b>280,765</b>	<b>161,468</b>	<b>293,544</b>	<b>265,135</b>		<b>1,484,131</b>	<b>3,104,374</b>	<b>3,272,669</b>	<b>3,821,941</b>	<b>3,420,234</b>	<b>3,322,432</b>	<b>1,729,508</b>	<b>2,958,366</b>	<b>2,190,064</b>	

Note 1: Includes Residential Lighting, Smart Living Catalog and Clothes Washers programs.  
 Note 2: Includes demand savings from the GEO Thermal Heat Pump and Heat Pump Water Heater programs.  
 Note 3: Includes demand savings from the Spectrum Heat program. In 2007, Residential HVAC program remained 'Home Energy Solutions' and is comprised of HVAC, Duct Sealing, Lighting, Energy Conservation Loan and Residential Audits.  
 Note 4: Includes demand savings from the Custom Services program.  
 Note 5: Includes demand savings from the Express program.  
 Note 6: Previously included in Energy Conscious Blueprint.  
 Note 7: Includes demand savings from the State Buildings program.  
 Note 8: Included in Energy Opportunities.  
 Note 9: ISO Load Management Programs Load Savings kW are included in yearly totals.

**Table E**  
**CL&P C&LM Rate Analysis**

**Table 1** and **Table 2** illustrate the impact on rates of C&LM 2011 Program activity. **Table 1** is the baseline scenario and assumes no C&LM activity and current CL&P sales forecast. **Table 2** assumes C&LM activity based on the 2011 C&LM Plan. C&LM activity is assumed for one year (2011).

**Table 1**

Year	Projected Rates With No Future C&LM									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Forecasted gWh Sales	22,280	22,676	22,963	23,182	23,412	23,705	23,886	24,122	24,360	24,610
Fixed Costs ( <b>Note 1</b> )	11,345	11,345	11,345	11,345	11,345	11,345	11,345	11,345	11,345	11,345
3-Mill Conservation Fund Charge	0.000									
Variable Costs ( <b>Note 2</b> )	4.995	4.908	4.846	4.800	4.753	4.695	4.659	4.613	4.568	4.522
C&LM Benefits ( <b>Note 3</b> )	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Average Baseline Rate (Cents/kWh)</b>	<b>16.340</b>	<b>16.253</b>	<b>16.192</b>	<b>16.146</b>	<b>16.099</b>	<b>16.040</b>	<b>16.004</b>	<b>15.959</b>	<b>15.914</b>	<b>15.867</b>

**Table 2**

Year	Projected Rates With C&LM in 2011 Only									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Forecasted gWh Sales	22,015	22,411	22,698	22,917	23,147	23,439	23,620	23,857	24,360	24,610
Fixed Costs ( <b>Note 1</b> )	11,345	11,345	11,345	11,345	11,345	11,345	11,345	11,345	11,345	11,345
3-Mill Conservation Fund Charge	0.300									
Variable Costs ( <b>Note 2</b> )	5.055	4.966	4.903	4.856	4.808	4.748	4.711	4.665	4.568	4.522
C&LM Benefits ( <b>Note 3</b> )	-0.056	-0.057	-0.036	-0.036	-0.031	-0.026	-0.021	-0.018	0.000	0.000
<b>Average Rate with C&amp;LM (Cents/kWh)</b>	<b>16.644</b>	<b>16.254</b>	<b>16.214</b>	<b>16.166</b>	<b>16.122</b>	<b>16.067</b>	<b>16.036</b>	<b>15.992</b>	<b>15.914</b>	<b>15.867</b>
Percent change in rates	1.86%	0.00%	0.14%	0.12%	0.15%	0.17%	0.20%	0.21%	0.00%	0.00%
Percent of Total Bill ( <b>Note 5</b> )	0.65%	-1.17%	-1.02%	-1.02%	-0.99%	-0.95%	-0.91%	-0.90%	0.00%	0.00%

**Note 1:** Fixed Costs are costs that are not affected by sales. These costs include generation, FMCC generation, the fixed portion of distribution (estimated at 1.636 cents per kWh), and renewables. For the purpose of this analysis, these costs are held constant from 2011 through 2020.

**Note 2:** Variable Costs are costs that change with sales. Variable costs include (remainder of Distribution, Transmission, SBC, CTA, FMCC Delivery) The variable portion of rates as shown will go down, absent any other cost changes, if there is no conservation (and vice-versa). This is the result of assumed costs staying the same and sales increasing slightly.

**Note 3:** Benefits are based on the avoided costs used by C&LM to evaluate programs. These include demand reduction induced price effects (DRIFE), avoided transmission and avoided distribution costs.

**Note 4:** Savings is assumed to persist for 8 years based on the average measure life of all measures in the 2011 C&LM Plan.

**Note 5:** Represents the change in total revenue between the Baseline and C&LM Activity scenarios.

**Table A**  
**UI 2011 Proposed C&LM Budget**

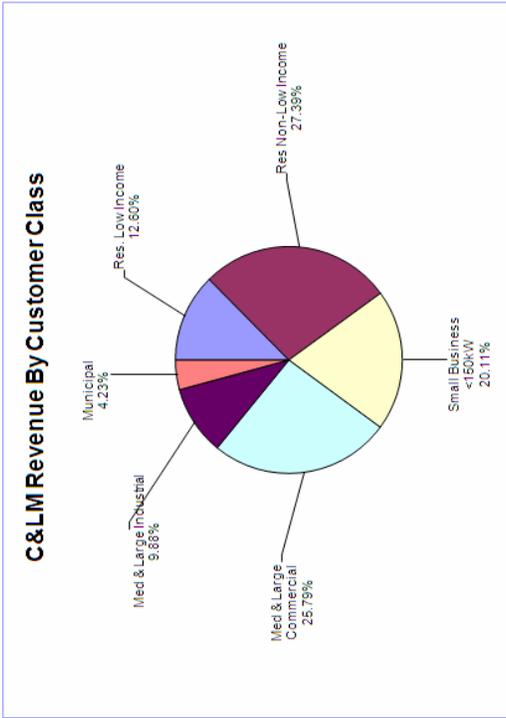
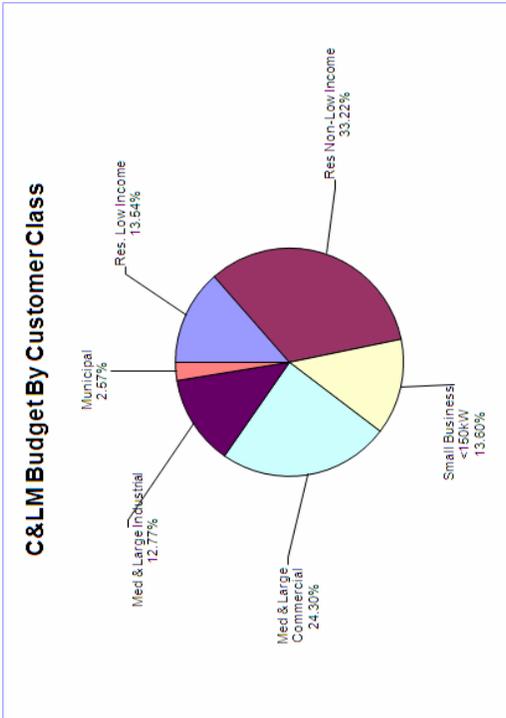
<b>UI C&amp;LM BUDGET</b>	2010 UI REVISED BASE BUDGET 4/15/2010	2011 UI PROPOSED BASE BUDGET	2012 UI PROPOSED BASE BUDGET
<b>RESIDENTIAL</b>			
Residential Retail Products	\$ 2,303,499	\$ 1,569,012	\$ 1,292,884
Appliance Rebate Program	\$ 503,850	\$ -	\$ -
<b>Total - Consumer Products</b>	<b>\$ 2,807,349</b>	<b>\$ 1,569,012</b>	<b>\$ 1,292,884</b>
Residential New Construction	\$ 356,148	\$ 215,440	\$ 150,973
Home Energy Solutions (HVAC, Duct Sealing, Lighting)	\$ 3,471,482	\$ 2,601,313	\$ 1,726,738
HES Income Eligible	\$ 3,444,132	\$ 2,398,996	\$ 1,775,568
<b>Subtotal RESIDENTIAL</b>	<b>\$ 10,079,111</b>	<b>\$ 6,784,761</b>	<b>\$ 4,946,164</b>
<b>COMMERCIAL &amp; INDUSTRIAL</b>			
<b>C&amp;I LOST OPPORTUNITY</b>			
Energy Conscious Blueprint	\$ 5,156,323	\$ 3,174,527	\$ 2,412,953
<b>Total - Lost Opportunity</b>	<b>\$ 5,156,323</b>	<b>\$ 3,174,527</b>	<b>\$ 2,412,953</b>
<b>C&amp;I LARGE RETROFIT</b>			
Energy Opportunities	\$ 4,301,639	\$ 3,094,350	\$ 2,353,872
O&M (Services, RetroCx, BSC)	\$ 445,764	\$ 441,667	\$ 251,770
PRIME	\$ 84,319	\$ 86,008	\$ 63,378
<b>Total - C&amp;I Large Retrofit</b>	<b>\$ 4,831,722</b>	<b>\$ 3,622,025</b>	<b>\$ 2,669,020</b>
Small Business	\$ 2,988,456	\$ 2,410,634	\$ 1,702,674
<b>Subtotal C&amp;I</b>	<b>\$ 12,976,501</b>	<b>\$ 9,207,186</b>	<b>\$ 6,784,647</b>
<b>OTHER - EDUCATION</b>			
SmartLiving Center®	\$ 459,246	\$ 459,246	\$ 459,246
EE Communities / Behavioral Pilot	\$ 250,000	\$ 176,822	\$ 176,633
K - 8 Education	\$ 432,202	\$ 401,825	\$ 401,825
<b>Subtotal Education</b>	<b>\$ 1,141,448</b>	<b>\$ 1,037,893</b>	<b>\$ 1,037,704</b>
<b>OTHER - PROGRAMS/REQUIREMENTS</b>			
Institute for Sustainable Energy (ECSU)	\$ 100,000	\$ 100,000	\$ 100,000
Residential Loan Program (Includes ECLF)	\$ 1,060,473	\$ 589,087	\$ 590,518
C&I Loan Program	\$ 50,000	\$ 50,000	\$ 50,000
C&LM Loan Defaults	\$ 4,700	\$ 50,000	\$ 50,000
Other Funding Requests	\$ 81,400	\$ -	\$ -
<b>Subtotal Programs/Requirements</b>	<b>\$ 1,296,573</b>	<b>\$ 789,087</b>	<b>\$ 790,518</b>
<b>OTHER - RENEWABLES &amp; RD&amp;D</b>			
Research, Development & Demonstration	\$ 125,000	\$ 125,000	\$ 125,000
<b>Subtotal Renewables &amp; RD&amp;D</b>	<b>\$ 125,000</b>	<b>\$ 125,000</b>	<b>\$ 125,000</b>
<b>OTHER - ADMINISTRATIVE &amp; PLANNING</b>			
Administration	\$ 640,078	\$ 646,635	\$ 677,288
Planning and Evaluation	\$ 363,000	\$ 308,819	\$ 323,989
Evaluation, Outside Services	\$ 430,000	\$ 430,000	\$ 430,000
Information Technology	\$ 243,000	\$ 243,000	\$ 243,000
ECMB	\$ 210,000	\$ 210,000	\$ 210,000
2010 Performance Management Fee	\$ 1,366,736	\$ -	\$ -
2011 Performance Management Fee	\$ -	\$ 979,619	\$ -
2012 Performance Management Fee	\$ -	\$ -	\$ 768,915
General Awareness	\$ 40,000	\$ 20,000	\$ 20,000
<b>Admin/Planning Expenditures</b>	<b>\$ 3,292,814</b>	<b>\$ 2,838,073</b>	<b>\$ 2,673,192</b>
<b>PROGRAM SUB-TOTALS</b>			
<b>Residential</b>	<b>\$ 12,171,183</b>	<b>\$ 8,300,527</b>	<b>\$ 6,463,210</b>
<b>C&amp;I</b>	<b>\$ 13,181,050</b>	<b>\$ 9,438,400</b>	<b>\$ 7,015,823</b>
<b>Other*</b>	<b>\$ 3,559,214</b>	<b>\$ 3,043,073</b>	<b>\$ 2,878,192</b>
<b>TOTAL C&amp;LM BUDGET</b>	<b>\$ 28,911,447</b>	<b>\$ 20,782,000</b>	<b>\$ 16,357,225</b>
<b>Docket 05-07-14PH01 Programs</b>			
Load Curtailment	\$ 416,911	\$ -	\$ -
<b>Subtotal Docket 05-07-14PH01 Programs</b>	<b>\$ 416,911</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL</b>	<b>\$ 29,328,358</b>	<b>\$ 20,782,000</b>	<b>\$ 16,357,225</b>

\* OTHER - EDUCATION is primarily allocated to residential programs.

\*\* 2011 EE Communities Budget is \$50,000 / 2011 Behavioral Pilot Budget is \$126,822

Totals may vary due to rounding

**THE UNITED ILLUMINATING COMPANY  
2011 CONSERVATION & LOAD MANAGEMENT BUDGET PIES  
TABLE A**



Customer Class	Budget	% of Total C&LM Budget	% of Residential & C&I Budget	% of Residential & C&I Revenue	Difference
Res. Low Income	\$ 2,398,996	11.54%	13.54%	12.60%	0.94%
Res Non-Low Income	\$ 5,885,532	28.32%	33.22%	27.39%	5.83%
Residential Sub-total	\$ 8,284,527	39.86%	46.76%	39.99%	6.77%
Small Business <150kW	\$ 2,410,634	11.60%	13.60%	20.11%	-6.51%
Med & Large Commercial	\$ 4,305,144	20.72%	24.30%	25.79%	-1.49%
Med & Large Industrial	\$ 2,262,514	10.89%	12.77%	9.66%	2.89%
Municipal	\$ 456,008	2.19%	2.57%	4.23%	-1.66%
<b>C &amp; I Sub-total</b>	<b>\$ 9,434,400</b>	<b>45.40%</b>	<b>53.24%</b>	<b>60.01%</b>	<b>-6.77%</b>
<b>Sub-total for Residential and C&amp;I</b>	<b>\$ 17,718,927</b>	<b>85.26%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>0.00%</b>
Other Expenditures	\$ 3,063,073	14.74%			
Other Expenditures Sub-total	\$ 3,063,073	14.74%			
<b>GRAND TOTAL *</b>	<b>\$ 20,782,000</b>	<b>100%</b>			

Totals may vary due to rounding

**THE UNITED ILLUMINATING COMPANY  
2011 CONSERVATION & LOAD MANAGEMENT  
COMPARISON OF UI CONSERVATION PROGRAMS  
INCLUDES DRIPE AND CO<sup>2</sup>  
TABLE B**

Program	Utility Costs 2011	Customer Cost 2011	Total Resource Cost 2011	Electric System Benefit 2011	Total Resource Benefit 2011	Electric System BC Ratio	Total Resource BC Ratio	Goals# Units	Units of Measure	Annualized Savings kWh	Lifetime Savings kWh	Load Savings kW	Demand Cost \$/kW Yr	Demand Cost \$/kW Yr	Utility Cost Rate \$/kWh Annualized	Utility Cost Rate \$/kWh Lifetime
Residential Retail Products	\$ 1,589,012	\$ 1,137,906	\$ 2,706,918	\$ 12,877,917	\$ 18,719,108	8.21	6.92	717,705	Bulbs, Fixtures	26,884,627	116,885,500	2,367.5	\$ 663	\$ 149	\$ 0.0584	\$ 0.013
<b>TOTAL - CONSUMER PRODUCTS</b>	<b>\$ 1,589,012</b>	<b>\$ 1,137,906</b>	<b>\$ 2,706,918</b>	<b>\$ 12,877,917</b>	<b>\$ 18,719,108</b>	<b>8.21</b>	<b>6.92</b>			<b>26,884,627</b>	<b>116,885,500</b>	<b>2,367.5</b>	<b>\$ 663</b>	<b>\$ 149</b>	<b>\$ 0.0584</b>	<b>\$ 0.013</b>
Residential New Construction	\$ 215,440	\$ 271,869	\$ 487,109	\$ 380,166	\$ 791,082	1.81	1.62	88	No of Homes	313,339	3,982,581	88.9	\$ 2,423	\$ 190	\$ 0.6876	\$ 0.054
Home Energy Solutions	\$ 2,601,313	\$ 633,444	\$ 3,234,757	\$ 4,046,507	\$ 6,731,436	1.56	2.08	3,985	No of Homes	4,056,713	42,691,353	827.5	\$ 3,143	\$ 299	\$ 0.6412	\$ 0.061
HES Income Eligible	\$ 2,388,896	\$ 609,000	\$ 3,007,896	\$ 3,299,892	\$ 7,470,270	1.38	2.48	3,422	Customers	3,517,383	39,133,248	254.0	\$ 9,447	\$ 849	\$ 0.6620	\$ 0.061
<b>SUB-TOTAL RESIDENTIAL</b>	<b>\$ 6,784,761</b>	<b>\$ 2,652,018</b>	<b>\$ 9,436,779</b>	<b>\$ 20,614,483</b>	<b>\$ 33,711,897</b>	<b>3.04</b>	<b>3.57</b>			<b>34,772,061</b>	<b>205,702,681</b>	<b>3,537.9</b>	<b>\$ 1,918</b>	<b>\$ 324</b>	<b>\$ 0.1951</b>	<b>\$ 0.033</b>
Energy Conscious Blueprint (a)	\$ 3,174,527	\$ 887,728	\$ 4,062,255	\$ 13,535,582	\$ 16,648,530	4.26	4.10	113	Projects	9,525,736	154,179,870	1,334.9	\$ 2,378	\$ 147	\$ 0.3333	\$ 0.021
<b>TOTAL - LOST OPPORTUNITY</b>	<b>\$ 3,174,527</b>	<b>\$ 887,728</b>	<b>\$ 4,062,255</b>	<b>\$ 13,535,582</b>	<b>\$ 16,648,530</b>	<b>4.26</b>	<b>4.10</b>			<b>9,525,736</b>	<b>154,179,870</b>	<b>1,334.9</b>	<b>\$ 2,378</b>	<b>\$ 147</b>	<b>\$ 0.3333</b>	<b>\$ 0.021</b>
Energy Opportunities	\$ 3,144,350	\$ 2,866,542	\$ 6,010,892	\$ 9,955,346	\$ 12,074,155	3.17	2.01	96	Projects	8,242,181	103,793,257	1,204.3	\$ 2,611	\$ 207	\$ 0.3815	\$ 0.030
O&M	\$ 441,667	\$ 802,501	\$ 1,044,168	\$ 587,594	\$ 729,385	1.33	0.70	10	Projects	715,327	4,922,692	167.9	\$ 2,630	\$ 382	\$ 0.6174	\$ 0.090
Services (BSC, Training, RetroX)	\$ 86,008	\$ 28,689	\$ 114,677	\$ 261,138	\$ 335,952	3.04	2.93	8	Projects	470,607	2,353,037	-	\$ -	\$ -	\$ 0.1828	\$ 0.037
PRIME	\$ 3,672,025	\$ 3,497,711	\$ 7,169,736	\$ 10,804,078	\$ 13,139,492	2.94	1.83	348	Projects	9,428,116	111,068,986	1,372.2	\$ 2,676	\$ 227	\$ 0.3895	\$ 0.033
<b>TOTAL - C&amp;LARGE RETROFIT</b>	<b>\$ 2,410,634</b>	<b>\$ 3,091,926</b>	<b>\$ 5,502,560</b>	<b>\$ 7,350,251</b>	<b>\$ 8,886,657</b>	<b>3.05</b>	<b>1.62</b>			<b>6,406,652</b>	<b>75,045,272</b>	<b>968.0</b>	<b>\$ 2,490</b>	<b>\$ 213</b>	<b>\$ 0.3763</b>	<b>\$ 0.032</b>
Small Business	\$ 9,257,186	\$ 7,477,365	\$ 16,734,551	\$ 31,689,912	\$ 38,674,679	3.42	2.31	15,000	Customers	25,360,503	340,294,128	3,675.1	\$ 2,519	\$ 188	\$ 0.3650	\$ 0.027
<b>SUB-TOTAL C&amp;I</b>	<b>\$ 9,257,186</b>	<b>\$ 7,477,365</b>	<b>\$ 16,734,551</b>	<b>\$ 31,689,912</b>	<b>\$ 38,674,679</b>	<b>3.42</b>	<b>2.31</b>			<b>25,360,503</b>	<b>340,294,128</b>	<b>3,675.1</b>	<b>\$ 2,519</b>	<b>\$ 188</b>	<b>\$ 0.3650</b>	<b>\$ 0.027</b>
SmartLiving Center®	\$ 459,246							15,000	Customers							
EE Communities / Behavioral Pilot	\$ 176,822							2,000	Curriculum							
K-8 Education	\$ 401,825															
<b>SUB-TOTAL EDUCATION</b>	<b>\$ 1,037,893</b>															
Institute for Sustainable Energy (ECSU)	\$ 100,000															
Residential Loan Program (Includes ECLF)	\$ 589,087															
C&I Loan Defaults	\$ 50,000															
Other Funding Requests	\$ -															
<b>SUB-TOTAL PROGRAM REQUIREMENTS</b>	<b>\$ 739,087</b>															
Research, Development & Demonstration	\$ 125,000															
<b>SUB-TOTAL RENEWABLES AND RD&amp;D</b>	<b>\$ 125,000</b>															
Administration	\$ 646,635															
Planning & Education	\$ 308,819															
Evaluation, Outside Services	\$ 430,000															
Information Technology	\$ 243,000															
ECUE	\$ 210,000															
2010 Performance Management Fee	\$ 979,619															
2011 Performance Management Fee	\$ 20,000															
General Awareness	\$ -															
<b>SUB-TOTAL ADMIN &amp; PLANNING</b>	<b>\$ 2,838,073</b>															
<b>PROGRAM SUB-TOTALS</b>	<b>\$ 8,300,527</b>	<b>\$ 2,652,018</b>	<b>\$ 9,436,779</b>	<b>\$ 20,614,483</b>	<b>\$ 33,711,897</b>	<b>2.48</b>	<b>3.57</b>			<b>34,772,061</b>	<b>205,702,681</b>	<b>3,537.9</b>	<b>\$ 2,546</b>	<b>\$ 397</b>	<b>\$ 0.2387</b>	<b>\$ 0.040</b>
RESIDENTIAL	\$ 9,438,400	\$ 7,477,365	\$ 16,734,551	\$ 31,689,912	\$ 38,674,679	3.06	2.31			25,360,503	340,294,128	3,675.1	\$ 2,568	\$ 191	\$ 0.3722	\$ 0.028
COMMERCIAL & INDUSTRIAL	\$ 3,043,073	\$ -	\$ -	\$ -	\$ -											
OTHER*	\$ -	\$ -	\$ -	\$ -	\$ -											
<b>TOTAL C&amp;I M BUDGET Note 2</b>	<b>\$ 20,782,000</b>	<b>\$ 10,126,383</b>	<b>\$ 26,171,330</b>	<b>\$ 52,304,395</b>	<b>\$ 72,386,576</b>	<b>2.52</b>	<b>2.77</b>			<b>60,132,665</b>	<b>545,996,809</b>	<b>7,215.0</b>	<b>\$ 2,881</b>	<b>\$ 317</b>	<b>\$ 0.3456</b>	<b>\$ 0.038</b>

Notes:  
(a) Energy Blueprint includes Motors and Cool Choice  
\* Other - Education is primarily allocated to Residential Programs  
Totals may vary due to rounding

**THE UNITED ILLUMINATING COMPANY  
2011 CONSERVATION & LOAD MANAGEMENT  
COMPARISON OF UI CONSERVATION PROGRAMS  
INCLUDES DRIPE AND CO<sup>2</sup>  
TABLE B1**

Program	Electric System					Non-Electric Benefits				
	Energy Benefits	Capacity Benefits	DRIPE	Electric System Benefits 2011	Resource Benefits	Non-Resource Benefits	Emissions Benefits	Total Non-Electric Benefits	Total Resource Benefits 2011	
Residential Retail Products	\$ 9,132,727	\$ 595,845	\$ 3,149,346	\$ 12,877,917	\$ -	\$ 1,945,314	\$ 3,895,877	\$ 5,841,191	\$ 18,719,108	
<b>TOTAL - CONSUMER PRODUCTS</b>	<b>\$ 9,132,727</b>	<b>\$ 595,845</b>	<b>\$ 3,149,346</b>	<b>\$ 12,877,917</b>	<b>\$ -</b>	<b>\$ 1,945,314</b>	<b>\$ 3,895,877</b>	<b>\$ 5,841,191</b>	<b>\$ 18,719,108</b>	
Residential New Construction	\$ 254,363	\$ 83,869	\$ 51,934	\$ 390,166	\$ 311,204	\$ 13,795	\$ 75,918	\$ 400,916	\$ 791,082	
Home Energy Solutions	\$ 2,872,549	\$ 550,666	\$ 623,292	\$ 4,046,507	\$ 1,592,927	\$ 163,418	\$ 928,584	\$ 2,684,928	\$ 6,731,436	
HES Income Eligible	\$ 2,628,194	\$ 149,338	\$ 522,360	\$ 3,299,892	\$ 3,258,347	\$ 70,506	\$ 841,524	\$ 4,170,378	\$ 7,470,270	
<b>SUB-TOTAL RESIDENTIAL</b>	<b>\$ 14,887,833</b>	<b>\$ 1,379,717</b>	<b>\$ 4,346,933</b>	<b>\$ 20,614,483</b>	<b>\$ 5,162,478</b>	<b>\$ 2,193,033</b>	<b>\$ 5,741,903</b>	<b>\$ 13,097,414</b>	<b>\$ 33,711,897</b>	
Energy Conscious Blueprint	\$ 10,703,046	\$ 911,454	\$ 1,921,082	\$ 13,535,582	\$ (71,047)	\$ 113,770	\$ 3,070,225	\$ 3,112,948	\$ 16,648,530	
<b>TOTAL - LOST OPPORTUNITY</b>	<b>\$ 10,703,046</b>	<b>\$ 911,454</b>	<b>\$ 1,921,082</b>	<b>\$ 13,535,582</b>	<b>\$ (71,047)</b>	<b>\$ 113,770</b>	<b>\$ 3,070,225</b>	<b>\$ 3,112,948</b>	<b>\$ 16,648,530</b>	
Energy Opportunities	\$ 7,616,013	\$ 680,821	\$ 1,658,511	\$ 9,955,346	\$ (409,867)	\$ 162,680	\$ 2,365,996	\$ 2,118,809	\$ 12,074,155	
O&M	\$ 588,954	\$ 59,994	\$ 199,784	\$ 848,732	\$ -	\$ -	\$ 216,605	\$ 216,605	\$ 1,065,337	
Services (BSC, Training, RetroX,PRIME)	\$ 8,204,968	\$ 740,815	\$ 1,858,295	\$ 10,804,078	\$ (409,867)	\$ 162,680	\$ 2,582,600	\$ 2,335,414	\$ 13,139,492	
<b>TOTAL - C&amp;LARGE RETROFIT</b>	<b>\$ 5,556,807</b>	<b>\$ 521,680</b>	<b>\$ 1,271,784</b>	<b>\$ 7,350,251</b>	<b>\$ (394,440)</b>	<b>\$ 156,994</b>	<b>\$ 1,773,853</b>	<b>\$ 1,536,406</b>	<b>\$ 8,886,657</b>	
Small Business	\$ 24,464,821	\$ 2,173,949	\$ 5,051,141	\$ 31,689,912	\$ (875,354)	\$ 433,444	\$ 7,426,677	\$ 6,984,767	\$ 38,674,679	
<b>SUB-TOTAL C&amp;I</b>	<b>\$ 39,352,654</b>	<b>\$ 3,553,666</b>	<b>\$ 9,398,074</b>	<b>\$ 52,304,395</b>	<b>\$ 4,287,124</b>	<b>\$ 2,626,477</b>	<b>\$ 13,168,580</b>	<b>\$ 20,082,181</b>	<b>\$ 72,386,576</b>	
<b>TOTAL C&amp;LM BUDGET</b>										

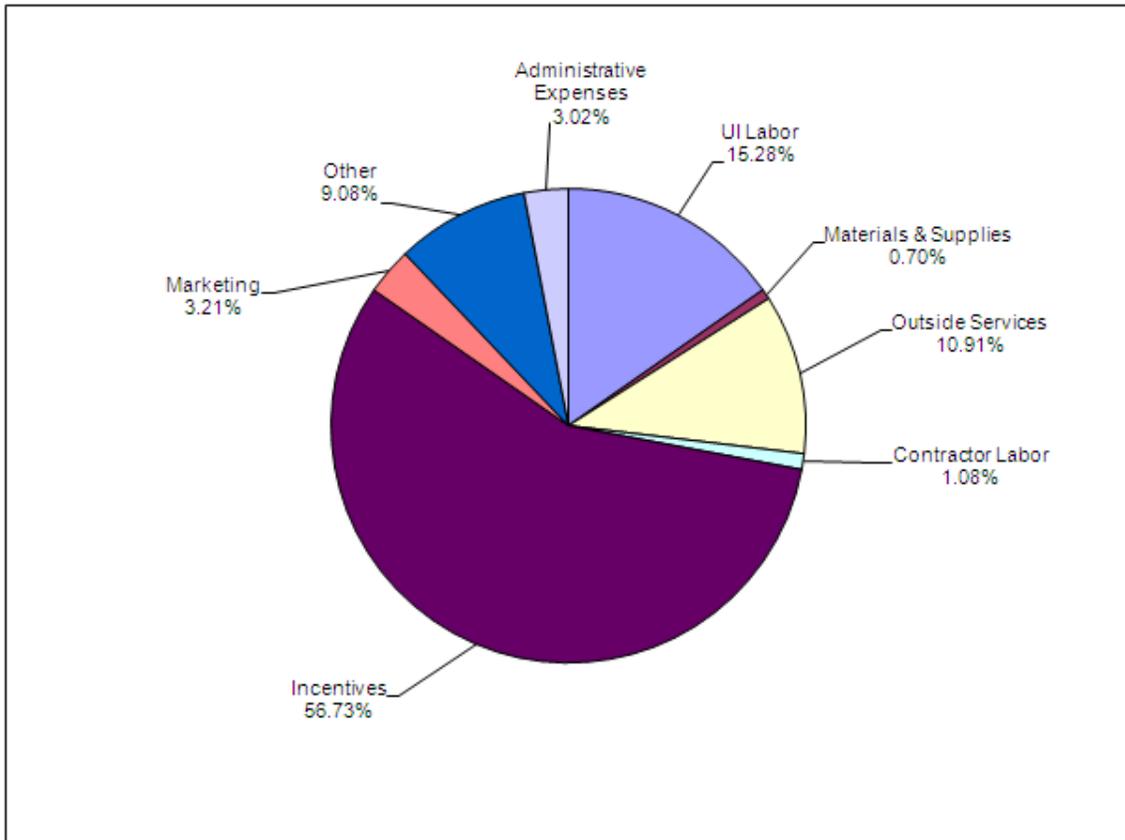
**THE UNITED ILLUMINATING COMPANY  
2011 CONSERVATION & LOAD MANAGEMENT  
TABLE C**

PROGRAM NAME	UI Labor	Materials & Supplies	Outside Services	Contractor Labor	Incentives	Marketing	Other (b)	Administrative Expenses	TOTAL
Residential Retail Products	\$ 176,283	\$ 7,500	\$ 190,000	\$ -	\$ 924,779	\$ 260,000	\$ 5,803	\$ 4,647	\$ 1,569,012
Appliance Rebate Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL - CONSUMER PRODUCTS</b>	<b>\$ 176,283</b>	<b>\$ 7,500</b>	<b>\$ 190,000</b>	<b>\$ -</b>	<b>\$ 924,779</b>	<b>\$ 260,000</b>	<b>\$ 5,803</b>	<b>\$ 4,647</b>	<b>\$ 1,569,012</b>
Residential New Construction	\$ 72,166	\$ 2,500	\$ 10,000	\$ -	\$ 100,757	\$ 25,000	\$ -	\$ 5,017	\$ 215,440
Home Energy Solutions	\$ 244,896	\$ 4,759	\$ 60,452	\$ -	\$ 2,166,227	\$ 112,500	\$ -	\$ 12,479	\$ 2,601,313
HES Income Eligible	\$ 185,551	\$ 15,691	\$ 114,153	\$ -	\$ 2,041,045	\$ 35,000	\$ -	\$ 7,556	\$ 2,398,996
<b>SUB-TOTAL RESIDENTIAL</b>	<b>\$ 678,896</b>	<b>\$ 30,450</b>	<b>\$ 374,605</b>	<b>\$ -</b>	<b>\$ 5,232,808</b>	<b>\$ 432,500</b>	<b>\$ 5,803</b>	<b>\$ 29,699</b>	<b>\$ 6,784,761</b>
Energy Conscious Blueprint (a)	\$ 526,753	\$ 4,500	\$ 165,000	\$ 15,000	\$ 2,369,974	\$ 40,000	\$ 11,000	\$ 42,300	\$ 3,174,527
<b>TOTAL - LOST OPPORTUNITY</b>	<b>\$ 526,753</b>	<b>\$ 4,500</b>	<b>\$ 165,000</b>	<b>\$ 15,000</b>	<b>\$ 2,369,974</b>	<b>\$ 40,000</b>	<b>\$ 11,000</b>	<b>\$ 42,300</b>	<b>\$ 3,174,527</b>
Energy Opportunities	\$ 533,287	\$ 3,100	\$ 135,000	\$ 15,000	\$ 2,234,043	\$ 48,000	\$ 3,000	\$ 172,920	\$ 3,144,350
O&M Services (RFP, BSC, Training, RetroX, PRIME)	\$ 45,811	\$ 1,000	\$ 320,000	\$ -	\$ 145,000	\$ 8,000	\$ 1,000	\$ 6,864	\$ 527,675
<b>TOTAL - C&amp;LARGE RETROFIT</b>	<b>\$ 579,098</b>	<b>\$ 4,100</b>	<b>\$ 455,000</b>	<b>\$ 15,000</b>	<b>\$ 2,379,043</b>	<b>\$ 56,000</b>	<b>\$ 4,000</b>	<b>\$ 179,784</b>	<b>\$ 3,672,025</b>
Small Business	\$ 257,077	\$ 3,266	\$ 30,000	\$ 10,500	\$ 1,733,261	\$ 24,000	\$ 1,200	\$ 351,330	\$ 2,410,634
<b>SUB-TOTAL C&amp;I</b>	<b>\$ 1,562,928</b>	<b>\$ 11,866</b>	<b>\$ 650,000</b>	<b>\$ 40,500</b>	<b>\$ 6,482,278</b>	<b>\$ 120,000</b>	<b>\$ 16,200</b>	<b>\$ 573,414</b>	<b>\$ 9,257,186</b>
SmartLiving Center®	\$ 61,916	\$ 10,000	\$ 4,500	\$ 171,814	\$ -	\$ 35,000	\$ 174,016	\$ 2,000	\$ 459,246
EE Communities / Behavioral Pilot	\$ 26,822	\$ 6,000	\$ 132,000	\$ -	\$ -	\$ 12,000	\$ -	\$ -	\$ 176,822
K-8 Education	\$ 61,916	\$ 12,000	\$ 197,698	\$ -	\$ 75,000	\$ 47,411	\$ -	\$ 7,800	\$ 401,825
<b>SUB-TOTAL EDUCATION</b>	<b>\$ 150,654</b>	<b>\$ 28,000</b>	<b>\$ 334,198</b>	<b>\$ 171,814</b>	<b>\$ 75,000</b>	<b>\$ 94,411</b>	<b>\$ 174,016</b>	<b>\$ 9,800</b>	<b>\$ 1,037,893</b>
Institute for Sustainable Energy (ECSU)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ 100,000
Residential Loan Program (Includes ECLF)	\$ 28,614	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 560,473	\$ -	\$ 589,087
C&LM Loan Defaults	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000	\$ -	\$ 50,000
<b>SUB-TOTAL PROGRAMS/REQUIREMENTS</b>	<b>\$ 28,614</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 710,473</b>	<b>\$ -</b>	<b>\$ 739,087</b>
Renewables Incentives	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Research, Development & Demonstration	\$ -	\$ -	\$ 125,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 125,000
<b>SUB-TOTAL RENEWABLES AND RD&amp;D</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 125,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 125,000</b>
Administration	\$ 603,103	\$ 2,500	\$ 35,332	\$ -	\$ -	\$ -	\$ -	\$ 5,700	\$ 646,635
Planning & Evaluation	\$ 303,402	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,417	\$ 308,819
Evaluation, Outside Services	\$ -	\$ -	\$ 430,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 430,000
Information Technology	\$ 48,528	\$ 72,075	\$ 107,208	\$ 12,569	\$ -	\$ -	\$ -	\$ 2,600	\$ 243,000
ECMB	\$ -	\$ -	\$ 210,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 210,000
General Awareness	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,000	\$ -	\$ -	\$ 20,000
2011 Performance Management Fee	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 979,619	\$ -	\$ 979,619
<b>SUB-TOTAL ADMIN &amp; PLANNING</b>	<b>\$ 955,033</b>	<b>\$ 74,575</b>	<b>\$ 782,540</b>	<b>\$ 12,569</b>	<b>\$ -</b>	<b>\$ 20,000</b>	<b>\$ 979,619</b>	<b>\$ 13,717</b>	<b>\$ 2,838,073</b>
<b>PROGRAM SUB-TOTALS</b>	<b>\$ 840,416</b>	<b>\$ 55,250</b>	<b>\$ 681,503</b>	<b>\$ 137,451</b>	<b>\$ 5,307,808</b>	<b>\$ 533,511</b>	<b>\$ 705,489</b>	<b>\$ 39,099</b>	<b>\$ 8,300,527</b>
<b>RESIDENTIAL</b>	<b>\$ 1,380,676</b>	<b>\$ 15,066</b>	<b>\$ 677,300</b>	<b>\$ 74,863</b>	<b>\$ 6,482,278</b>	<b>\$ 133,400</b>	<b>\$ 101,003</b>	<b>\$ 573,814</b>	<b>\$ 9,438,400</b>
<b>COMMERCIAL &amp; INDUSTRIAL</b>	<b>\$ 955,033</b>	<b>\$ 74,575</b>	<b>\$ 907,540</b>	<b>\$ 12,569</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,079,619</b>	<b>\$ 13,717</b>	<b>\$ 3,043,073</b>
<b>OTHER</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL C&amp;LM BUDGET</b>	<b>\$ 3,176,125</b>	<b>\$ 144,891</b>	<b>\$ 2,266,343</b>	<b>\$ 224,903</b>	<b>\$ 11,790,086</b>	<b>\$ 666,911</b>	<b>\$ 1,886,111</b>	<b>\$ 626,630</b>	<b>\$ 20,782,000</b>

Notes:  
(a) Energy Blueprint includes Motors and Cool Choice  
(b) Other Incentives include:  
- Performance Management Fee  
- Smart Living Center Lease  
- Smart Living Center Utilities  
- ECSU  
- Energy Conservation Loan Fund  
- Energy Conservation Loan Fund  
- C&LM Loan Defaults  
- NEEP Participation  
- Dues  
- Postage  
- Telephone Expense

Totals may vary due to rounding

**THE UNITED ILLUMINATING COMPANY  
2011 CONSERVATION & LOAD MANAGEMENT  
C&LM BUDGET BY EXPENSE CLASS**



<u>Expense Classes</u>	<u>Budget</u>	<u>% of Budget</u>
UI Labor	\$ 3,176,125	15.28%
Materials & Supplies	\$ 144,891	0.70%
Outside Services	\$ 2,266,343	10.91%
Contractor Labor	\$ 224,903	1.08%
Incentives	\$ 11,790,086	56.73%
Marketing	\$ 666,911	3.21%
Other	\$ 1,886,111	9.08%
Administrative Expenses	\$ 626,630	3.02%
<b>Total</b>	<b>\$ 20,782,000</b>	<b>100.00%</b>

Totals may vary due to rounding

**Table D**  
**UI Historical and Projected \$ and kW**

	Expenditures \$ (000)										
	2001 Actual	2002 Actual	2003 Actual	2004 Actual	2005 Actual	2006 Actual	2007 Actual	2008 Actual	2009 Actual	2010 Goal	2011 Goal
<b>RESIDENTIAL</b>											
Residential Retail Products	1,589	1,303	592	1,267	1,592	1,664	1,247	1,282	1,344	2,303	1,569
Appliance Retirement	-	-	-	867	109	160	-	160	-	-	-
<b>Total - Consumer Products</b>	<b>1,589</b>	<b>1,303</b>	<b>592</b>	<b>2,134</b>	<b>2,479</b>	<b>1,773</b>	<b>1,247</b>	<b>1,442</b>	<b>1,344</b>	<b>2,303</b>	<b>1,569</b>
Residential New Construction	497	520	357	606	1,140	375	440	440	198	356	215
Home Energy Solutions	229	286	268	423	1,079	784	1,079	2,067	3,090	2,896	2,601
HES Income Eligible	1,500	1,166	799	803	1,086	1,250	1,107	939	3,448	3,444	2,399
<b>Subtotal RESIDENTIAL</b>	<b>3,815</b>	<b>3,277</b>	<b>2,016</b>	<b>3,966</b>	<b>5,378</b>	<b>4,182</b>	<b>3,586</b>	<b>4,888</b>	<b>8,080</b>	<b>8,999</b>	<b>6,785</b>
<b>COMMERCIAL &amp; INDUSTRIAL</b>											
<b>C&amp;I LOST OPPORTUNITY</b>											
Energy Conscious Blueprint	2,304	2,019	1,963	2,021	3,787	3,174	5,051	3,422	4,337	5,156	3,175
<b>Total - Lost Opportunity</b>	<b>2,304</b>	<b>2,019</b>	<b>1,963</b>	<b>2,021</b>	<b>3,787</b>	<b>3,174</b>	<b>5,051</b>	<b>3,422</b>	<b>4,337</b>	<b>5,156</b>	<b>3,175</b>
<b>C&amp;I LARGE RETROFIT</b>											
C&I RFP	22	88	185	122	387	-	-	-	-	-	-
Energy Opportunities	3,401	1,271	1,169	2,259	3,917	2,977	5,843	3,119	4,789	4,301	3,144
O&M (RetroCx, BSC, RFP, PRIME)	-	70	184	108	141	72	141	17	133	530	528
Municipal Energy & Schools	934	775	573	625	828	-	-	-	-	-	-
<b>Total - C&amp;I Large Retrofit</b>	<b>4,357</b>	<b>2,134</b>	<b>1,997</b>	<b>3,190</b>	<b>5,240</b>	<b>3,049</b>	<b>5,984</b>	<b>3,136</b>	<b>4,922</b>	<b>4,831</b>	<b>3,672</b>
Small Business	1,397	997	844	1,638	1,366	1,642	2,170	2,145	2,170	2,988	2,411
<b>Subtotal C&amp;I</b>	<b>8,058</b>	<b>5,150</b>	<b>4,806</b>	<b>6,055</b>	<b>10,413</b>	<b>7,861</b>	<b>12,877</b>	<b>8,703</b>	<b>11,429</b>	<b>12,975</b>	<b>9,258</b>
<b>OTHER - LOAD MANAGEMENT</b>											
ISO Load Response Program Support	63	424	604	33	209	11	8	6	4	-	-
<b>Subtotal Load Management</b>	<b>63</b>	<b>424</b>	<b>604</b>	<b>33</b>	<b>209</b>	<b>11</b>	<b>8</b>	<b>6</b>	<b>4</b>	<b>-</b>	<b>-</b>
<b>PROGRAM SUB-TOTALS</b>											
Residential	3,815	3,277	2,016	3,966	5,378	4,182	3,586	4,888	8,080	8,999	6,785
C&I	8,121	5,574	4,110	6,088	10,622	7,872	12,885	8,709	11,433	12,975	9,258
<b>TOTAL</b>	<b>11,936</b>	<b>8,851</b>	<b>7,426</b>	<b>10,054</b>	<b>16,000</b>	<b>12,054</b>	<b>16,471</b>	<b>13,597</b>	<b>19,513</b>	<b>21,974</b>	<b>16,042</b>
<b>Load Savings kW</b>											
<b>RESIDENTIAL</b>											
Residential Retail Products	759	635	639	1,286	1,339	1,158	1,615	1,613	1,186	1,772	2,368
Appliance Retirement	-	-	-	636	491	36	-	13	-	-	-
<b>Total - Consumer Products</b>	<b>759</b>	<b>635</b>	<b>639</b>	<b>1,922</b>	<b>1,830</b>	<b>1,194</b>	<b>1,615</b>	<b>1,626</b>	<b>1,186</b>	<b>1,772</b>	<b>2,368</b>
Residential New Construction	62	69	25	173	212	231	290	267	31	71	89
Home Energy Solutions	132	2,137	368	728	1,061	631	414	933	984	682	828
HES Income Eligible	655	597	283	294	416	353	338	229	277	254	254
<b>Subtotal RESIDENTIAL</b>	<b>1,608</b>	<b>3,438</b>	<b>1,315</b>	<b>3,117</b>	<b>3,518</b>	<b>2,530</b>	<b>2,657</b>	<b>3,055</b>	<b>2,478</b>	<b>2,878</b>	<b>3,538</b>
<b>COMMERCIAL &amp; INDUSTRIAL</b>											
<b>C&amp;I LOST OPPORTUNITY</b>											
Energy Conscious Blueprint	5,134	3,761	3,815	4,180	4,367	4,685	2,622	2,337	2,620	3,987	1,335
<b>Total - Lost Opportunity</b>	<b>5,134</b>	<b>3,761</b>	<b>3,815</b>	<b>4,180</b>	<b>4,367</b>	<b>4,685</b>	<b>2,622</b>	<b>2,337</b>	<b>2,620</b>	<b>3,987</b>	<b>1,335</b>
<b>C&amp;I LARGE RETROFIT</b>											
C&I RFP	36	87	521	59	81	-	-	-	-	-	-
Energy Opportunities	4,799	2,467	2,191	3,180	3,850	3,345	3,993	3,530	2,977	2,013	1,204
O&M (RetroCx, BSC, RFP, PRIME)	-	-	-	-	674	237	55	27	70	168	168
Municipal Energy & Schools	859	1,107	1,317	1,019	427	-	-	-	-	-	-
<b>Total - C&amp;I Large Retrofit</b>	<b>5,694</b>	<b>3,661</b>	<b>4,029</b>	<b>4,258</b>	<b>5,032</b>	<b>3,582</b>	<b>4,048</b>	<b>3,530</b>	<b>3,004</b>	<b>2,083</b>	<b>1,372</b>
Small Business	683	653	1,031	1,035	1,963	1,661	2,003	2,149	1,452	1,452	963
<b>Subtotal C&amp;I</b>	<b>11,511</b>	<b>8,081</b>	<b>8,875</b>	<b>9,473</b>	<b>11,362</b>	<b>9,927</b>	<b>8,678</b>	<b>8,016</b>	<b>7,198</b>	<b>4,522</b>	<b>3,675</b>
<b>OTHER - LOAD MANAGEMENT</b>											
ISO Load Response Program Support	10,925	10,925	14,465	3,975	2,060	3,338	2,867	1,868	782	-	-
<b>Subtotal Load Management</b>	<b>10,925</b>	<b>10,925</b>	<b>14,465</b>	<b>3,975</b>	<b>2,060</b>	<b>3,338</b>	<b>-</b>	<b>-</b>	<b>782</b>	<b>-</b>	<b>-</b>
<b>PROGRAM SUB-TOTALS</b>											
Residential	1,608	3,438	1,315	3,117	3,518	2,530	2,657	3,055	2,478	2,878	3,538
C&I	22,436	19,006	23,340	13,448	13,265	11,545	11,545	9,884	7,980	4,522	3,675
<b>TOTAL</b>	<b>24,044</b>	<b>22,444</b>	<b>24,655</b>	<b>16,565</b>	<b>16,940</b>	<b>15,795</b>	<b>14,202</b>	<b>12,939</b>	<b>10,458</b>	<b>7,400</b>	<b>7,213</b>

**Table D1  
UI Historical and Projected Annual kWh and Lifetime kWh**

		Annual kWh (000)										
		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
		Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Goal	Goal
<b>RESIDENTIAL</b>												
Residential Retail Products		9,563	7,997	3,465	12,166	14,968	15,216	21,152	17,390	12,485	20,067	26,885
Appliance Retirement		-	-	-	2,667	2,567	261	-	7	-	-	-
<b>Total - Consumer Products</b>		<b>9,563</b>	<b>7,997</b>	<b>3,465</b>	<b>14,833</b>	<b>17,535</b>	<b>15,477</b>	<b>21,152</b>	<b>17,397</b>	<b>12,485</b>	<b>20,067</b>	<b>26,885</b>
Residential New Construction		208	230	297	385	1,038	1,038	1,672	802	62	281	313
Home Energy Solutions		75	1,216	231	415	517	455	1,063	3,331	2,515	4,661	4,067
HES Income Eligible		6,086	5,550	2,779	4,052	5,130	4,784	3,498	2,511	3,122	6,906	3,517
<b>Subtotal RESIDENTIAL</b>		<b>15,932</b>	<b>14,993</b>	<b>6,772</b>	<b>19,685</b>	<b>24,220</b>	<b>21,754</b>	<b>27,385</b>	<b>24,041</b>	<b>18,184</b>	<b>31,915</b>	<b>34,772</b>
<b>COMMERCIAL &amp; INDUSTRIAL</b>												
<b>C&amp;I LOST OPPORTUNITY</b>												
Energy Conscious Blueprint		25,568	18,731	10,994	22,420	20,122	13,765	15,090	14,302	16,308	8,147	9,526
<b>Total - Lost Opportunity</b>		<b>25,568</b>	<b>18,731</b>	<b>10,994</b>	<b>22,420</b>	<b>20,122</b>	<b>13,765</b>	<b>15,090</b>	<b>14,302</b>	<b>16,308</b>	<b>8,147</b>	<b>9,526</b>
<b>C&amp;I LARGE RETROFIT</b>												
C&I RFP		228	544	2,414	856	563	-	-	-	-	-	-
Energy Opportunities		25,592	13,156	11,929	18,591	24,167	20,704	21,573	20,668	18,128	14,967	8,242
O&M (RetroCx, ESC, RFP, PRIME)		-	-	-	2,206	1,453	-	2,386	-	498	2,196	1,186
Municipal Energy & Schools		4,278	5,511	4,240	5,497	2,059	-	2,059	-	-	-	-
<b>Total - C&amp;I Large Retrofit</b>		<b>30,098</b>	<b>19,211</b>	<b>18,583</b>	<b>24,944</b>	<b>28,995</b>	<b>22,157</b>	<b>23,959</b>	<b>20,668</b>	<b>18,626</b>	<b>17,163</b>	<b>9,428</b>
Small Business		6,506	6,279	3,578	4,399	7,590	5,830	7,644	9,480	7,914	9,251	6,407
<b>Subtotal C&amp;I</b>		<b>62,172</b>	<b>44,221</b>	<b>33,155</b>	<b>51,763</b>	<b>56,707</b>	<b>41,752</b>	<b>46,693</b>	<b>44,450</b>	<b>42,848</b>	<b>34,361</b>	<b>25,361</b>
<b>PROGRAM SUB-TOTALS</b>												
Residential		15,932	14,993	6,772	19,685	24,220	21,754	27,385	24,041	18,184	31,915	34,772
C&I		62,172	44,221	33,155	51,763	56,707	41,752	46,693	44,450	42,848	34,361	25,361
<b>TOTAL</b>		<b>78,104</b>	<b>59,214</b>	<b>39,927</b>	<b>71,448</b>	<b>80,927</b>	<b>63,506</b>	<b>74,078</b>	<b>68,491</b>	<b>61,032</b>	<b>66,476</b>	<b>60,133</b>
<b>Lifetime kWh (000)</b>												
<b>RESIDENTIAL</b>												
Residential Retail Products		114,927	87,336	34,208	115,967	111,484	126,122	180,938	135,890	84,297	116,297	119,886
Appliance Retirement		-	-	-	13,002	12,761	1,306	-	90	-	-	-
<b>Total - Consumer Products</b>		<b>114,927</b>	<b>87,336</b>	<b>34,208</b>	<b>128,969</b>	<b>124,245</b>	<b>127,428</b>	<b>180,938</b>	<b>135,980</b>	<b>84,297</b>	<b>116,297</b>	<b>119,886</b>
Residential New Construction		4,338	5,044	5,940	7,412	11,240	15,812	23,327	12,628	884	4,283	3,993
Home Energy Solutions		1,125	18,240	4,389	7,839	8,264	4,866	11,997	33,731	31,331	45,051	42,691
HES Income Eligible		60,860	55,500	24,412	17,352	36,581	36,749	32,294	20,676	24,878	81,275	39,133
<b>Subtotal RESIDENTIAL</b>		<b>181,250</b>	<b>166,120</b>	<b>68,949</b>	<b>161,572</b>	<b>180,330</b>	<b>185,855</b>	<b>248,556</b>	<b>203,015</b>	<b>141,390</b>	<b>246,906</b>	<b>205,703</b>
<b>COMMERCIAL &amp; INDUSTRIAL</b>												
<b>C&amp;I LOST OPPORTUNITY</b>												
Energy Conscious Construction		383,520	280,965	164,910	336,293	343,568	191,708	224,566	203,135	268,292	128,227	154,180
<b>Total - Lost Opportunity</b>		<b>383,520</b>	<b>280,965</b>	<b>164,910</b>	<b>336,293</b>	<b>343,568</b>	<b>191,708</b>	<b>224,566</b>	<b>203,135</b>	<b>268,292</b>	<b>128,227</b>	<b>154,180</b>
<b>C&amp;I LARGE RETROFIT</b>												
C&I RFP		3,420	8,160	36,210	12,835	10,700	-	-	-	-	-	-
Energy Opportunities		383,196	190,038	178,935	278,872	409,048	310,557	291,700	272,595	233,761	186,728	103,793
O&M (RetroCx, ESC, RFP, PRIME)		-	-	-	22,061	21,790	-	35,790	-	3,640	10,980	7,276
Municipal Energy & Schools		64,170	82,665	63,600	82,451	36,659	-	-	-	-	-	-
<b>Total - C&amp;I Large Retrofit</b>		<b>450,786</b>	<b>280,863</b>	<b>278,745</b>	<b>374,158</b>	<b>478,468</b>	<b>332,347</b>	<b>327,490</b>	<b>272,595</b>	<b>237,401</b>	<b>197,708</b>	<b>111,069</b>
Small Business		97,600	94,200	53,670	65,987	119,909	76,975	92,649	99,684	88,186	109,193	75,045
<b>Subtotal C&amp;I</b>		<b>931,906</b>	<b>656,028</b>	<b>497,325</b>	<b>776,438</b>	<b>941,945</b>	<b>601,030</b>	<b>644,705</b>	<b>575,414</b>	<b>593,879</b>	<b>435,128</b>	<b>340,294</b>
<b>PROGRAM SUB-TOTALS</b>												
Residential		181,250	166,120	68,949	161,572	180,330	185,855	248,556	203,015	141,390	246,906	205,703
C&I		931,906	656,028	497,325	776,438	941,945	601,030	644,705	575,414	593,879	435,128	340,294
<b>TOTAL</b>		<b>1,113,156</b>	<b>822,148</b>	<b>566,274</b>	<b>938,010</b>	<b>1,122,275</b>	<b>786,885</b>	<b>893,261</b>	<b>778,429</b>	<b>735,269</b>	<b>682,034</b>	<b>545,997</b>

**TABLE E**  
**Projected UI Average Rates (¢/kWh)**

Projected Rates With No Future CLM										
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
GWh Sales	5,459	5,437	5,465	5,533	5,608	5,705	5,776	5,870	5,971	6,095
Energy	10.419	10.419	10.419	10.419	10.419	10.419	10.419	10.419	10.419	10.419
CTA	1.555	1.56	1.29	0.09	0.09					
ERRB			0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
Renewables	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
SBC	0.3375	0.3375	0.3375	0.3375	0.3375	0.3375	0.3375	0.3375	0.3375	0.3375
Transmission	1.679	1.686	1.677	1.657	1.635	1.607	1.587	1.562	1.535	1.504
TAC	0	0	0	0	0	0	0	0	0	0
Distribution	5.048	5.069	5.043	4.981	4.915	4.831	4.772	4.695	4.616	4.521
FMCC-DEL	0.5458	0.5458	0.5458	0.5458	0.5458	0.5458	0.5458	0.5458	0.5458	0.5458
Total	19.684	19.719	20.046	18.760	18.671	18.470	18.391	18.289	18.183	18.058

Projected Rates With CLM In 2011 Only										
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
GWh Sales	5,397	5,374	5,402	5,470	5,544	5,640	5,710	5,803	5,904	6,027
Energy	10.419	10.419	10.419	10.419	10.419	10.419	10.419	10.419	10.419	10.419
CTA	1.573	1.579	1.309	0.091	0.090					
ERRB			0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
CLM	0.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Renewables	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
SBC	0.3375	0.3375	0.3375	0.3375	0.3375	0.3375	0.3375	0.3375	0.3375	0.3375
Transmission	1.698	1.706	1.697	1.676	1.653	1.625	1.605	1.579	1.553	1.521
TAC	0	0	0	0	0	0	0	0	0	0
Distribution	5.106	5.128	5.101	5.038	4.971	4.887	4.826	4.749	4.668	4.572
FMCC-DEL	0.5458	0.5458	0.5458	0.5458	0.5458	0.5458	0.5458	0.5458	0.5458	0.5458
T avoided	(0.0003)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	
D Avoided	(0.0063)	(0.0065)	(0.0066)	(0.0066)	(0.0067)	(0.0067)	(0.0068)	(0.0068)	(0.0068)	
DRIFE	(0.05)	(0.05)	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	
Total	20.026	19.760	20.113	18.816	18.726	18.523	18.442	18.341	18.236	18.125

Assumptions:

- 1) All dollars are nominal.
- 2) For the purpose of this analysis the energy rate and T&D revenue requirements were held constant.
- 3) DRIFE and T&D avoided cost benefits expire after 9 years which is the average measure life.
- 4) Load does not bounce back after measures expire.

**BUDGET TABLES (Natural Gas Companies)**

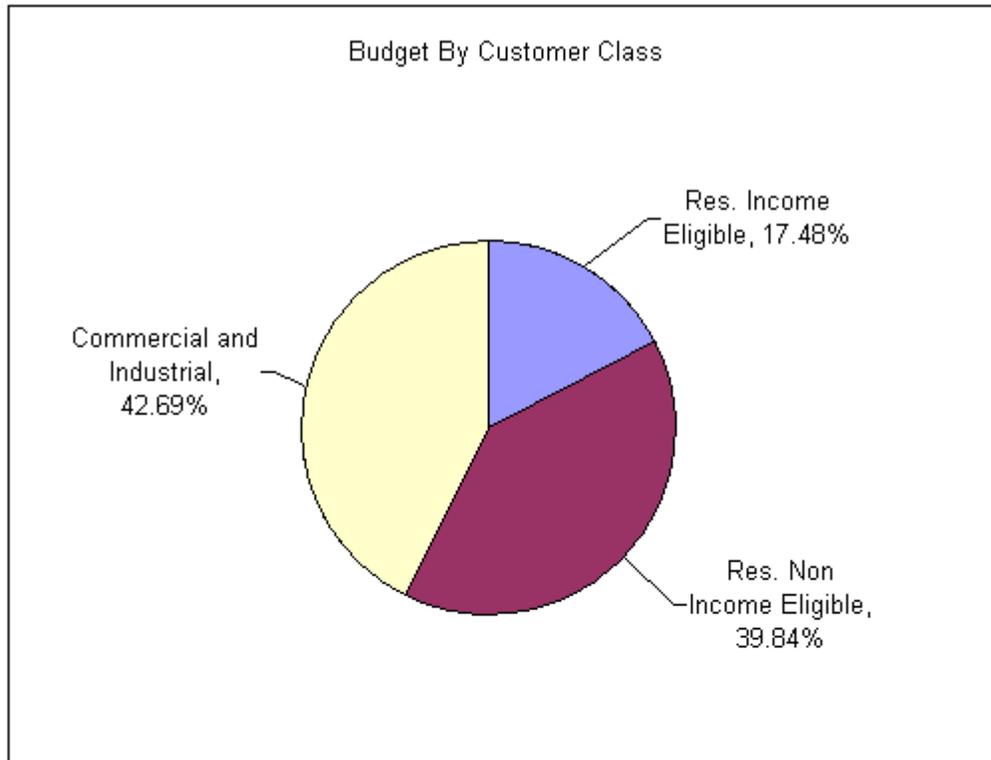
**Table A1  
YGS, CNG & SCG  
Proposed Natural Gas Conservation Plan Budget**

	2010			2011				
	2010 (Note 1) Yankee Filed Budget	2010 CNG Filed Budget	2010 SCG Filed Budget	2010 Combined YGS/CNG/SCG Total	2011 Yankee Proposed Budget	2011 CNG Proposed Budget	2011 SCG Proposed Budget	2011 Combined YGS/CNG/SCG Total
<b>Natural Gas C&amp;LM Budget</b>								
<b>RESIDENTIAL</b>								
HES Income Eligible - Weatherization	\$ 895,000	\$ 674,095	\$ 674,766	\$ 2,243,861	\$ 900,000	\$ 800,000	\$ 900,000	\$ 2,600,000
HES Income Eligible - Audits	\$ 30,000	\$ 25,772	\$ 25,803	\$ 81,575	\$ 30,000	\$ 25,772	\$ 25,803	\$ 81,575
<b>HES Income Eligible - Total</b>	<b>\$ 925,000</b>	<b>\$ 699,867</b>	<b>\$ 700,569</b>	<b>\$ 2,325,436</b>	<b>\$ 930,000</b>	<b>\$ 825,772</b>	<b>\$ 925,803</b>	<b>\$ 2,681,575</b>
Home Energy Solutions (HES)*	\$ 1,000,000	\$ 700,000	\$ 700,000	\$ 2,400,000	\$ 1,600,000	\$ 1,500,000	\$ 1,500,000	\$ 4,600,000
Residential New Construction	\$ 250,000	\$ 250,000	\$ 250,000	\$ 750,000	\$ 500,000	\$ 350,000	\$ 300,000	\$ 1,150,000
Water Heating	\$ 136,600	\$ 105,400	\$ 121,000	\$ 363,000	\$ 136,600	\$ 105,400	\$ 121,000	\$ 363,000
<b>Subtotal Residential</b>	<b>\$ 2,311,600</b>	<b>\$ 1,755,267</b>	<b>\$ 1,771,569</b>	<b>\$ 5,838,436</b>	<b>\$ 3,166,600</b>	<b>\$ 2,781,172</b>	<b>\$ 2,846,803</b>	<b>\$ 8,794,575</b>
<b>COMMERCIAL &amp; INDUSTRIAL C&amp;I LOST OPPORTUNITY</b>								
Energy Conscious Blueprint	\$ 1,300,000	\$ 858,726	\$ 859,585	\$ 3,018,311	\$ 1,480,000	\$ 1,140,000	\$ 1,050,000	\$ 3,670,000
<b>Total - Lost Opportunity</b>	<b>\$ 1,300,000</b>	<b>\$ 858,726</b>	<b>\$ 859,585</b>	<b>\$ 3,018,311</b>	<b>\$ 1,480,000</b>	<b>\$ 1,140,000</b>	<b>\$ 1,050,000</b>	<b>\$ 3,670,000</b>
<b>C&amp;I LARGE RETROFIT</b>								
Energy Opportunities	\$ 890,000	\$ 501,250	\$ 443,750	\$ 1,835,000	\$ 1,020,000	\$ 760,000	\$ 700,000	\$ 2,480,000
O&M (RetroCx, Training)	\$ 100,000	\$ 50,000	\$ 50,000	\$ 200,000	\$ 200,000	\$ 100,000	\$ 100,000	\$ 400,000
<b>Total - C&amp;I Large Retrofit</b>	<b>\$ 990,000</b>	<b>\$ 551,250</b>	<b>\$ 493,750</b>	<b>\$ 2,035,000</b>	<b>\$ 1,220,000</b>	<b>\$ 860,000</b>	<b>\$ 800,000</b>	<b>\$ 2,880,000</b>
<b>Subtotal C&amp;I</b>	<b>\$ 2,290,000</b>	<b>\$ 1,409,976</b>	<b>\$ 1,353,335</b>	<b>\$ 5,063,311</b>	<b>\$ 2,700,000</b>	<b>\$ 2,000,000</b>	<b>\$ 1,850,000</b>	<b>\$ 6,550,000</b>
<b>OTHER - PROGRAMS/REQUIREMENTS</b>								
CHIF Loan Fund	\$ 30,000	\$ 30,000	\$ 30,000	\$ 90,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 150,000
Residential Financing Subsidies	\$ 30,000	\$ 30,000	\$ 30,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 270,000
C&I Financing Subsidies	\$ 30,000	\$ 30,000	\$ 30,000	\$ 90,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 150,000
<b>Subtotal Programs/Requirements</b>	<b>\$ 90,000</b>	<b>\$ 90,000</b>	<b>\$ 90,000</b>	<b>\$ 270,000</b>	<b>\$ 190,000</b>	<b>\$ 190,000</b>	<b>\$ 190,000</b>	<b>\$ 570,000</b>
<b>OTHER - ADMINISTRATIVE &amp; PLANNING</b>								
Information Technology	\$ 35,000	\$ 30,000	\$ 30,000	\$ 95,000	\$ 35,000	\$ 30,000	\$ 30,000	\$ 95,000
Planning	\$ 58,930	\$ 50,534	\$ 50,536	\$ 160,000	\$ 59,000	\$ 51,000	\$ 51,000	\$ 161,000
Evaluation	\$ 38,000	\$ 31,000	\$ 31,000	\$ 100,000	\$ 234,000	\$ 208,000	\$ 208,000	\$ 650,000
Energy Efficiency Board	\$ 9,000	\$ 9,000	\$ 9,000	\$ 27,000	\$ 16,500	\$ 16,500	\$ 16,500	\$ 49,500
<b>Subtotal Other - Administrative &amp; Planning</b>	<b>\$ 140,930</b>	<b>\$ 120,534</b>	<b>\$ 120,536</b>	<b>\$ 382,000</b>	<b>\$ 344,500</b>	<b>\$ 305,500</b>	<b>\$ 305,500</b>	<b>\$ 955,500</b>
<b>PROGRAM SUBTOTALS</b>								
<b>Residential</b>	<b>\$ 2,371,600</b>	<b>\$ 1,815,267</b>	<b>\$ 1,831,569</b>	<b>\$ 6,018,436</b>	<b>\$ 3,306,600</b>	<b>\$ 2,921,172</b>	<b>\$ 2,986,803</b>	<b>\$ 9,214,575</b>
<b>C&amp;I</b>	<b>\$ 2,320,000</b>	<b>\$ 1,439,976</b>	<b>\$ 1,383,335</b>	<b>\$ 5,143,311</b>	<b>\$ 2,750,000</b>	<b>\$ 2,050,000</b>	<b>\$ 1,900,000</b>	<b>\$ 6,700,000</b>
<b>Other</b>	<b>\$ 140,930</b>	<b>\$ 120,534</b>	<b>\$ 120,536</b>	<b>\$ 382,000</b>	<b>\$ 344,500</b>	<b>\$ 305,500</b>	<b>\$ 305,500</b>	<b>\$ 955,500</b>
<b>TOTAL</b>	<b>\$ 4,832,530</b>	<b>\$ 3,375,777</b>	<b>\$ 3,335,440</b>	<b>\$ 11,543,747</b>	<b>\$ 6,401,100</b>	<b>\$ 5,276,672</b>	<b>\$ 5,192,303</b>	<b>\$ 16,870,075</b>

Note 1: As of September 21, 2010 the DPUC approved an additional \$600,870 for the Yankee Gas 2010 for C&I Projects that exceeded the \$100,000 per project incentive cap. This additional funding is not reflected in the above budget figures.

\*HES Includes The High Efficiency Heating Rebate program of \$300,000 per Company.

**Statewide 2011 Budget Analysis  
Table A1 Pie Chart**



Customer Class	Budget (\$,000)	% of Total Conservation Budget	% of Residential & C&I Budget
Res. Income Eligible	\$2,681,575	15.90%	17.48%
Res. Non Income Eligible	\$6,113,000	36.24%	39.84%
<b>Residential Subtotal</b>	<b>\$8,794,575</b>	<b>52.13%</b>	<b>57.31%</b>
Commercial and Industrial	\$6,550,000	38.83%	42.69%
<b>C&amp;I Subtotal</b>	<b>\$6,550,000</b>	<b>38.83%</b>	<b>42.69%</b>
<b>Residential and C&amp;I Subtotal</b>	<b>\$15,344,575</b>	<b>90.96%</b>	<b>100.00%</b>
<b>Other Expenditures</b>			
Other Expenditures	\$1,525,500	9.04%	
<b>Other Expenditures Subtotal</b>	<b>\$1,525,500</b>	<b>9.04%</b>	
<b>TOTAL</b>	<b>\$16,870,075</b>	<b>100.00%</b>	
Yankee	\$6,401,100	37.94%	
CNG	\$5,276,672	31.28%	
SCG	\$5,192,303	30.78%	

**Table A2  
YGS, CNG & SCG  
Natural Gas Conservation Plan Revenues**

Natural Gas C&LM Revenues	2010					2011			
	2010 Yankee Revenues	2010 CNG Revenues	2010 SCG Revenues	2010 Combined YGS/CNG/SCG Total	2010 Combined YGS/CNG/SCG Total	2011 Yankee Revenues	2011 CNG Revenues	2011 SCG Revenues	2011 Combined YGS/CNG/SCG Total
Collections (Rates)*	\$ 882,000	\$ 750,000	\$ 300,000	\$ 1,932,000	\$ 1,932,000	\$ 882,000	\$ 750,000	\$ 300,000	\$ 1,932,000
Stimulus Dollars**	\$ 373,750	\$ 201,250	\$ 143,750	\$ 718,750	\$ 718,750	-	-	-	-
Conservation Adjustment Mechanism (CAM)***	\$ 3,950,530	\$ 2,625,777	\$ 3,035,440	\$ 9,611,747	\$ 9,611,747	\$ 5,519,100	\$ 4,526,672	\$ 4,892,303	\$ 14,938,075
Gross Receipts Tax (GRT)	-	-	-	-	-	-	-	-	-
<b>Total Revenues</b>	<b>\$ 4,832,530</b>	<b>\$ 3,375,777</b>	<b>\$ 3,335,440</b>	<b>\$ 12,262,497</b>	<b>\$ 12,262,497</b>	<b>\$ 6,401,100</b>	<b>\$ 5,276,672</b>	<b>\$ 5,192,303</b>	<b>\$ 16,870,075</b>

Natural Gas C&LM Revenues	2012			
	2012 Yankee Revenues	2012 CNG Revenues	2012 SCG Revenues	2012 Combined YGS/CNG/SCG Total
Collections (Rates)*	\$ 882,000	\$ 750,000	\$ 300,000	\$ 1,932,000
Stimulus Dollars**	-	-	-	-
Conservation Adjustment Mechanism (CAM)***	\$ 5,519,100	\$ 4,526,672	\$ 4,892,303	\$ 14,938,075
Gross Receipts Tax (GRT)	-	-	-	-
<b>Total Revenues</b>	<b>\$ 6,401,100</b>	<b>\$ 5,276,672</b>	<b>\$ 5,192,303</b>	<b>\$ 16,870,075</b>

\*The 2011 Base rate amounts for CNG and SCG are subject to modification and/or proration based upon the final determination of the Superior court appeal of Docket No. 08-12-06 (CNG) and 08-12-07 (SCG)  
 \*\*Estimated Gas Share of Stimulus Dollars provided by the DOE - State Energy Program (SEP). The dollars will flow through the electric utilities and pay for fuel blind projects.  
 \*\*\*Estimated to be collected in CAM.  
 2010 & 2011 CAM has not yet been filed.

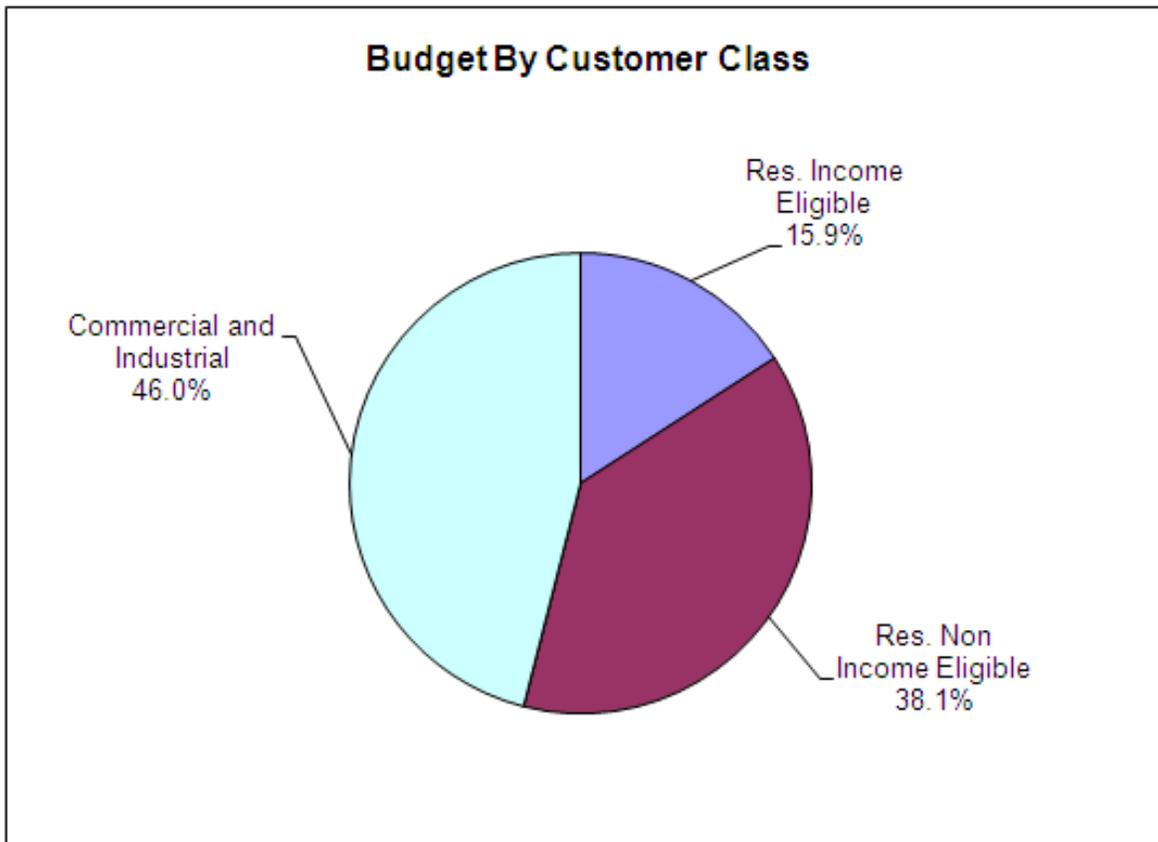
**Table A**  
**YGS**  
**Proposed Natural Gas Conservation Plan Budget**

Natural Gas C&LM Budget	2010 (Note 1) Yankee Filed Budget	2011 Yankee Proposed Budget	2012 Yankee Proposed Budget
<b>RESIDENTIAL</b>			
HES Income Eligible - Weatherization	\$ 895,000	\$ 900,000	\$ 900,000
HES Income Eligible - Audits	\$ 30,000	\$ 30,000	\$ 30,000
<b>HES Income Eligible - Total</b>	<b>\$ 925,000</b>	<b>\$ 930,000</b>	<b>\$ 930,000</b>
Home Energy Solutions (HES)*	\$ 1,000,000	\$ 1,600,000	\$ 1,600,000
Residential New Construction	\$ 250,000	\$ 500,000	\$ 500,000
Water Heating	\$ 136,600	\$ 136,600	\$ 136,600
<b>Subtotal Residential</b>	<b>\$ 2,311,600</b>	<b>\$ 3,166,600</b>	<b>\$ 3,166,600</b>
<b>COMMERCIAL &amp; INDUSTRIAL C&amp;I LOST OPPORTUNITY</b>			
Energy Conscious Blueprint	\$ 1,300,000	\$ 1,480,000	\$ 1,480,000
<b>Total - Lost Opportunity</b>	<b>\$ 1,300,000</b>	<b>\$ 1,480,000</b>	<b>\$ 1,480,000</b>
<b>C&amp;I LARGE RETROFIT</b>			
Energy Opportunities	\$ 890,000	\$ 1,020,000	\$ 1,020,000
O&M (RetroCx, Training)	\$ 100,000	\$ 200,000	\$ 200,000
<b>Total - C&amp;I Large Retrofit</b>	<b>\$ 990,000</b>	<b>\$ 1,220,000</b>	<b>\$ 1,220,000</b>
<b>Subtotal C&amp;I</b>	<b>\$ 2,290,000</b>	<b>\$ 2,700,000</b>	<b>\$ 2,700,000</b>
<b>OTHER - PROGRAMS/REQUIREMENTS</b>			
CHIF Loan Fund	\$ 30,000	\$ 50,000	\$ 50,000
Residential Financing Subsidies	\$ 30,000	\$ 90,000	\$ 90,000
C&I Financing Subsidies	\$ 30,000	\$ 50,000	\$ 50,000
<b>Subtotal Programs/Requirements</b>	<b>\$ 90,000</b>	<b>\$ 190,000</b>	<b>\$ 190,000</b>
<b>OTHER - ADMINISTRATIVE &amp; PLANNING</b>			
Information Technology	\$ 35,000	\$ 35,000	\$ 35,000
Planning	\$ 58,930	\$ 59,000	\$ 59,000
Evaluation	\$ 38,000	\$ 234,000	\$ 234,000
Energy Efficiency Board	\$ 9,000	\$ 16,500	\$ 16,500
<b>Subtotal Other - Administrative &amp; Planning</b>	<b>\$ 140,930</b>	<b>\$ 344,500</b>	<b>\$ 344,500</b>
<b>PROGRAM SUBTOTALS</b>			
<b>Residential</b>	<b>\$ 2,371,600</b>	<b>\$ 3,306,600</b>	<b>\$ 3,306,600</b>
<b>C&amp;I</b>	<b>\$ 2,320,000</b>	<b>\$ 2,750,000</b>	<b>\$ 2,750,000</b>
<b>Other</b>	<b>\$ 140,930</b>	<b>\$ 344,500</b>	<b>\$ 344,500</b>
<b>TOTAL</b>	<b>\$ 4,832,530</b>	<b>\$ 6,401,100</b>	<b>\$ 6,401,100</b>

Note 1: As of September 21, 2010 the DPUC approved an additional \$600,870 for the Yankee Gas 2010 for C&I Projects that exceeded the \$100,000 per project. This additional funding is not reflected in the above budget figures.

\*HES Includes The High Efficiency Heating Rebate program of \$300,000 per Company

## YGS 2011 Budget Analysis



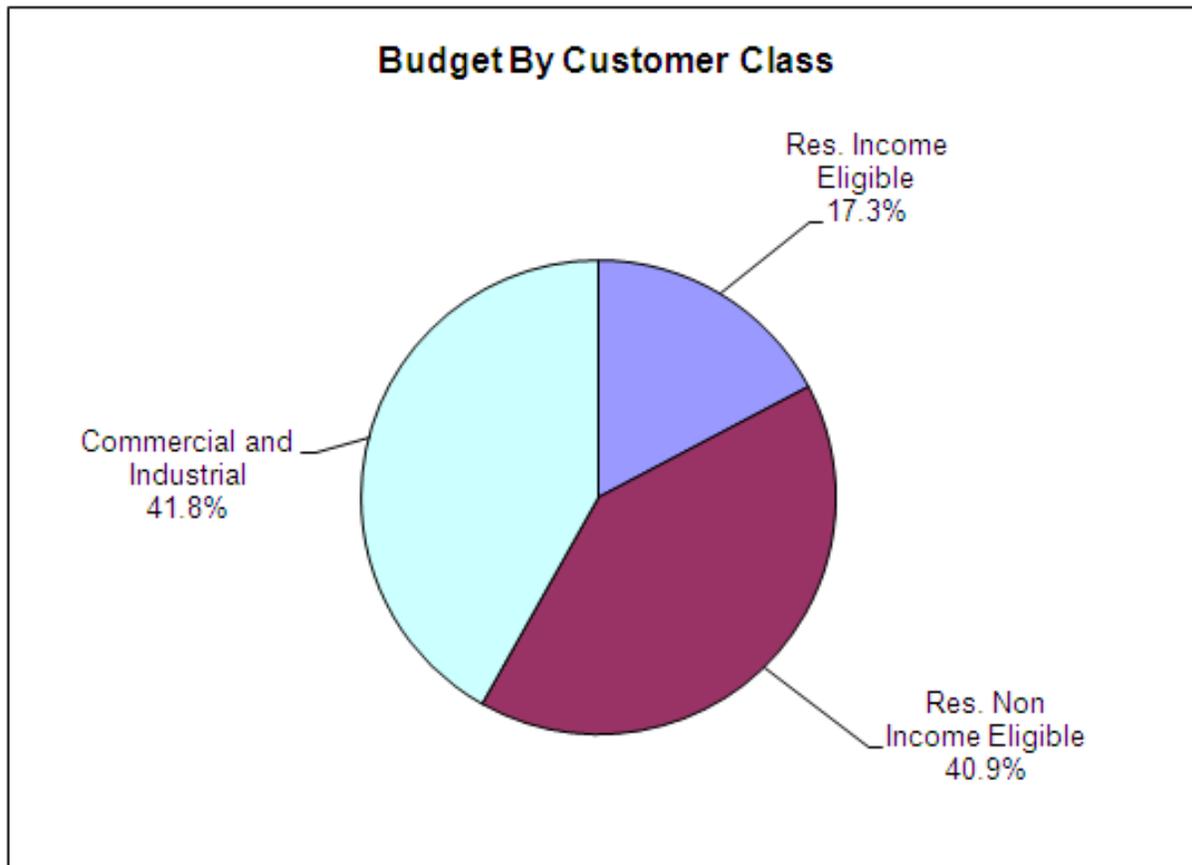
Customer Class	Budget	% of Total Conservation Budget	% of Residential & C&I Budget
Res. Income Eligible	\$930,000	14.53%	15.85%
Res. Non Income Eligible	\$2,236,600	34.94%	38.12%
<b>Residential Subtotal</b>	<b>\$3,166,600</b>	<b>49.47%</b>	<b>53.98%</b>
Commercial and Industrial	\$2,700,000	42.18%	46.02%
<b>C&amp;I Subtotal</b>	<b>\$2,700,000</b>	<b>42.18%</b>	<b>46.02%</b>
<b>Residential and C&amp;I Subtotal</b>	<b>\$5,866,600</b>	<b>91.65%</b>	<b>100.00%</b>
<b>Other Expenditures</b>			
Other Expenditures	\$534,500	8.35%	
<b>Other Expenditures Subtotal</b>	<b>\$534,500</b>	<b>8.35%</b>	
<b>TOTAL</b>	<b>\$6,401,100</b>	<b>100.00%</b>	

**Table A**  
**CNG**  
**Proposed Natural Gas Conservation Plan Budget**

Natural Gas C&LM Budget	2010 CNG Filed Budget	2011 CNG Proposed Budget	2012 CNG Proposed Budget
<b>RESIDENTIAL</b>			
HES Income Eligible - Weatherization	\$ 674,095	\$ 800,000	\$ 800,000
HES Income Eligible - Audits	\$ 25,772	\$ 25,772	\$ 25,772
<b>HES Income Eligible - Total</b>	<b>\$ 699,867</b>	<b>\$ 825,772</b>	<b>\$ 825,772</b>
Home Energy Solutions (HES)*	\$ 700,000	\$ 1,500,000	\$ 1,500,000
Residential New Construction	\$ 250,000	\$ 350,000	\$ 350,000
Water Heating	\$ 105,400	\$ 105,400	\$ 105,400
<b>Subtotal Residential</b>	<b>\$ 1,755,267</b>	<b>\$ 2,781,172</b>	<b>\$ 2,781,172</b>
<b>COMMERCIAL &amp; INDUSTRIAL C&amp;I LOST OPPORTUNITY</b>			
Energy Conscious Blueprint	\$ 858,726	\$ 1,140,000	\$ 1,140,000
<b>Total - Lost Opportunity</b>	<b>\$ 858,726</b>	<b>\$ 1,140,000</b>	<b>\$ 1,140,000</b>
<b>C&amp;I LARGE RETROFIT</b>			
Energy Opportunities	\$ 501,250	\$ 760,000	\$ 760,000
O&M (RetroCx, Training)	\$ 50,000	\$ 100,000	\$ 100,000
<b>Total - C&amp;I Large Retrofit</b>	<b>\$ 551,250</b>	<b>\$ 860,000</b>	<b>\$ 860,000</b>
<b>Subtotal C&amp;I</b>	<b>\$ 1,409,976</b>	<b>\$ 2,000,000</b>	<b>\$ 2,000,000</b>
<b>OTHER - PROGRAMS/REQUIREMENTS</b>			
CHIF Loan Fund	\$ 30,000	\$ 50,000	\$ 50,000
Residential Financing Subsidies	\$ 30,000	\$ 90,000	\$ 90,000
C&I Financing Subsidies	\$ 30,000	\$ 50,000	\$ 50,000
<b>Subtotal Programs/Requirements</b>	<b>\$ 90,000</b>	<b>\$ 190,000</b>	<b>\$ 190,000</b>
<b>OTHER - ADMINISTRATIVE &amp; PLANNING</b>			
Information Technology	\$ 30,000	\$ 30,000	\$ 30,000
Planning	\$ 50,534	\$ 51,000	\$ 51,000
Evaluation	\$ 31,000	\$ 208,000	\$ 208,000
Energy Efficiency Board	\$ 9,000	\$ 16,500	\$ 16,500
<b>Subtotal Other - Administrative &amp; Planning</b>	<b>\$ 120,534</b>	<b>\$ 305,500</b>	<b>\$ 305,500</b>
<b>PROGRAM SUBTOTALS</b>			
<b>Residential</b>	<b>\$ 1,815,267</b>	<b>\$ 2,921,172</b>	<b>\$ 2,921,172</b>
<b>C&amp;I</b>	<b>\$ 1,439,976</b>	<b>\$ 2,050,000</b>	<b>\$ 2,050,000</b>
<b>Other</b>	<b>\$ 120,534</b>	<b>\$ 305,500</b>	<b>\$ 305,500</b>
<b>TOTAL</b>	<b>\$ 3,375,777</b>	<b>\$ 5,276,672</b>	<b>\$ 5,276,672</b>

\*HES Includes The High Efficiency Heating Rebate program of \$300,000 per Company

## CNG 2011 Budget Analysis



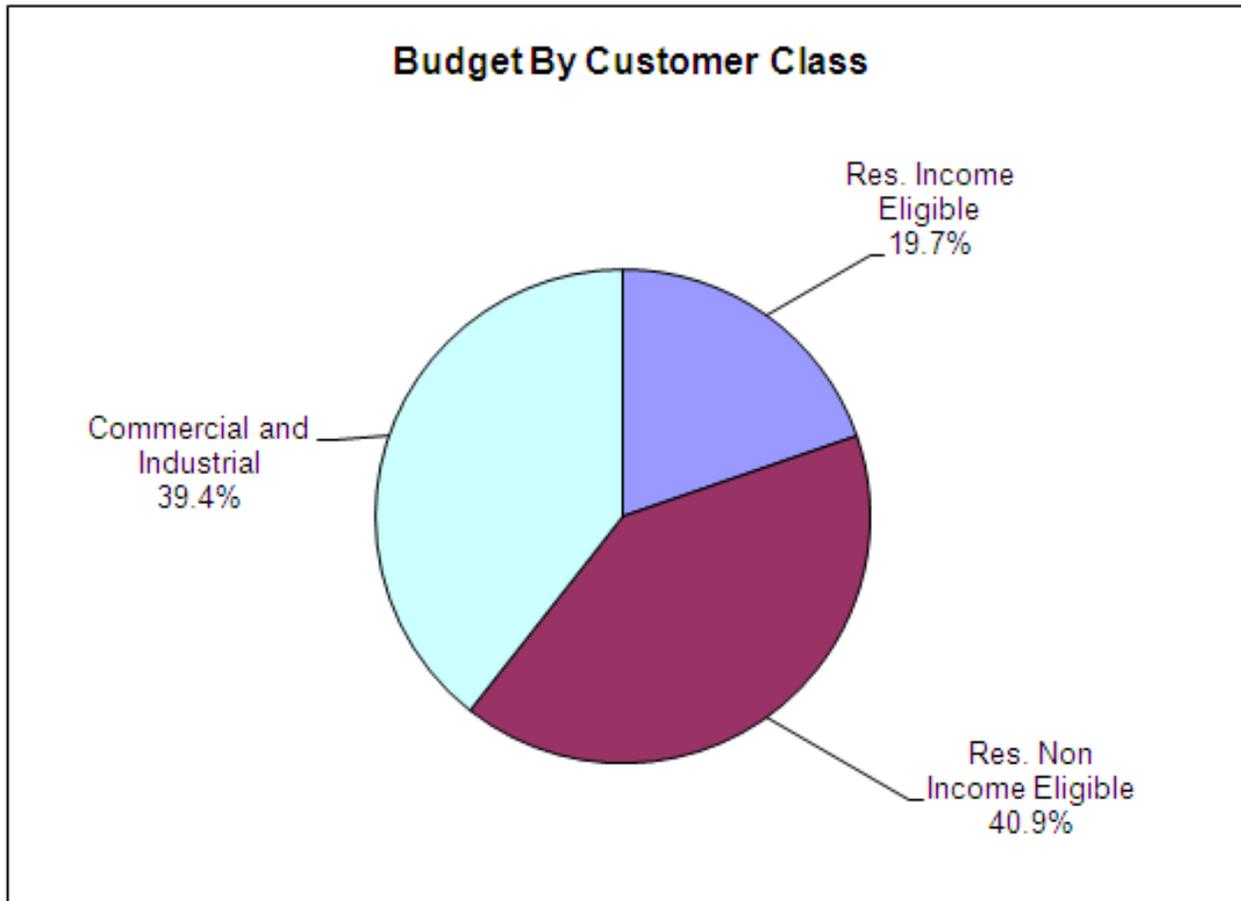
Customer Class	Budget	% of Total Conservation Budget	% of Residential & C&I Budget
Res. Income Eligible	\$825,772	15.65%	17.27%
Res. Non Income Eligible	\$1,955,400	37.06%	40.90%
<b>Residential Subtotal</b>	<b>\$2,781,172</b>	<b>52.71%</b>	<b>58.17%</b>
Commercial and Industrial	\$2,000,000	37.90%	41.83%
<b>C&amp;I Subtotal</b>	<b>\$2,000,000</b>	<b>37.90%</b>	<b>41.83%</b>
<b>Residential and C&amp;I Subtotal</b>	<b>\$4,781,172</b>	<b>90.61%</b>	<b>100.00%</b>
<b>Other Expenditures</b>			
Other Expenditures	\$495,500	9.39%	
<b>Other Expenditures Subtotal</b>	<b>\$495,500</b>	<b>9.39%</b>	
<b>TOTAL</b>	<b>\$5,276,672</b>	<b>100.00%</b>	

**Table A**  
**SCG**  
**Proposed Natural Gas Conservation Plan Budget**

Natural Gas C&LM Budget	<u>2010</u> SCG Filed Budget	<u>2011</u> SCG Proposed Budget	<u>2012</u> SCG Proposed Budget
<b>RESIDENTIAL</b>			
HES Income Eligible - Weatherization	\$ 674,766	\$ 900,000	\$ 900,000
HES Income Eligible - Audits	\$ 25,803	\$ 25,803	\$ 25,803
<b>HES Income Eligible - Total</b>	<b>\$ 700,569</b>	<b>\$ 925,803</b>	<b>\$ 925,803</b>
Home Energy Solutions (HES)*	\$ 700,000	\$ 1,500,000	\$ 1,500,000
Residential New Construction	\$ 250,000	\$ 300,000	\$ 300,000
Water Heating	\$ 121,000	\$ 121,000	\$ 121,000
<b>Subtotal Residential</b>	<b>\$ 1,771,569</b>	<b>\$ 2,846,803</b>	<b>\$ 2,846,803</b>
<b>COMMERCIAL &amp; INDUSTRIAL C&amp;I LOST OPPORTUNITY</b>			
Energy Conscious Blueprint	\$ 859,585	\$ 1,050,000	\$ 1,050,000
<b>Total - Lost Opportunity</b>	<b>\$ 859,585</b>	<b>\$ 1,050,000</b>	<b>\$ 1,050,000</b>
<b>C&amp;I LARGE RETROFIT</b>			
Energy Opportunities	\$ 443,750	\$ 700,000	\$ 700,000
O&M (RetroCx, Training)	\$ 50,000	\$ 100,000	\$ 100,000
<b>Total - C&amp;I Large Retrofit</b>	<b>\$ 493,750</b>	<b>\$ 800,000</b>	<b>\$ 800,000</b>
<b>Subtotal C&amp;I</b>	<b>\$ 1,353,335</b>	<b>\$ 1,850,000</b>	<b>\$ 1,850,000</b>
<b>OTHER - PROGRAMS/REQUIREMENTS</b>			
CHIF Loan Fund	\$ 30,000	\$ 50,000	\$ 50,000
Residential Financing Subsidies	\$ 30,000	\$ 90,000	\$ 90,000
C&I Financing Subsidies	\$ 30,000	\$ 50,000	\$ 50,000
<b>Subtotal Programs/Requirements</b>	<b>\$ 90,000</b>	<b>\$ 190,000</b>	<b>\$ 190,000</b>
<b>OTHER - ADMINISTRATIVE &amp; PLANNING</b>			
Information Technology	\$ 30,000	\$ 30,000	\$ 30,000
Planning	\$ 50,536	\$ 51,000	\$ 51,000
Evaluation	\$ 31,000	\$ 208,000	\$ 208,000
Energy Efficiency Board	\$ 9,000	\$ 16,500	\$ 16,500
<b>Subtotal Other - Administrative &amp; Planning</b>	<b>\$ 120,536</b>	<b>\$ 305,500</b>	<b>\$ 305,500</b>
<b>PROGRAM SUBTOTALS</b>			
<b>Residential</b>	<b>\$ 1,831,569</b>	<b>\$ 2,986,803</b>	<b>\$ 2,986,803</b>
<b>C&amp;I</b>	<b>\$ 1,383,335</b>	<b>\$ 1,900,000</b>	<b>\$ 1,900,000</b>
<b>Other</b>	<b>\$ 120,536</b>	<b>\$ 305,500</b>	<b>\$ 305,500</b>
<b>TOTAL</b>	<b>\$ 3,335,440</b>	<b>\$ 5,192,303</b>	<b>\$ 5,192,303</b>

\*HES Includes The High Efficiency Heating Rebate program of \$300,000 per Company

## SCG 2011 Budget Analysis



Customer Class	Budget	% of Total Conservation Budget	% of Residential & C&I Budget
Res. Income Eligible	\$925,803	17.83%	19.71%
Res. Non Income Eligible	\$1,921,000	37.00%	40.90%
<b>Residential Subtotal</b>	<b>\$2,846,803</b>	<b>54.83%</b>	<b>60.61%</b>
Commercial and Industrial	\$1,850,000	35.63%	39.39%
<b>C&amp;I Subtotal</b>	<b>\$1,850,000</b>	<b>35.63%</b>	<b>39.39%</b>
<b>Residential and C&amp;I Subtotal</b>	<b>\$4,696,803</b>	<b>90.46%</b>	<b>100.00%</b>
<b>Other Expenditures</b>			
Other Expenditures	\$495,500	9.54%	
<b>Other Expenditures Subtotal</b>	<b>\$495,500</b>	<b>9.54%</b>	
<b>TOTAL</b>	<b>\$5,192,303</b>	<b>100.00%</b>	

**Table B  
2011 COMPARISON OF CONSERVATION PROGRAMS**

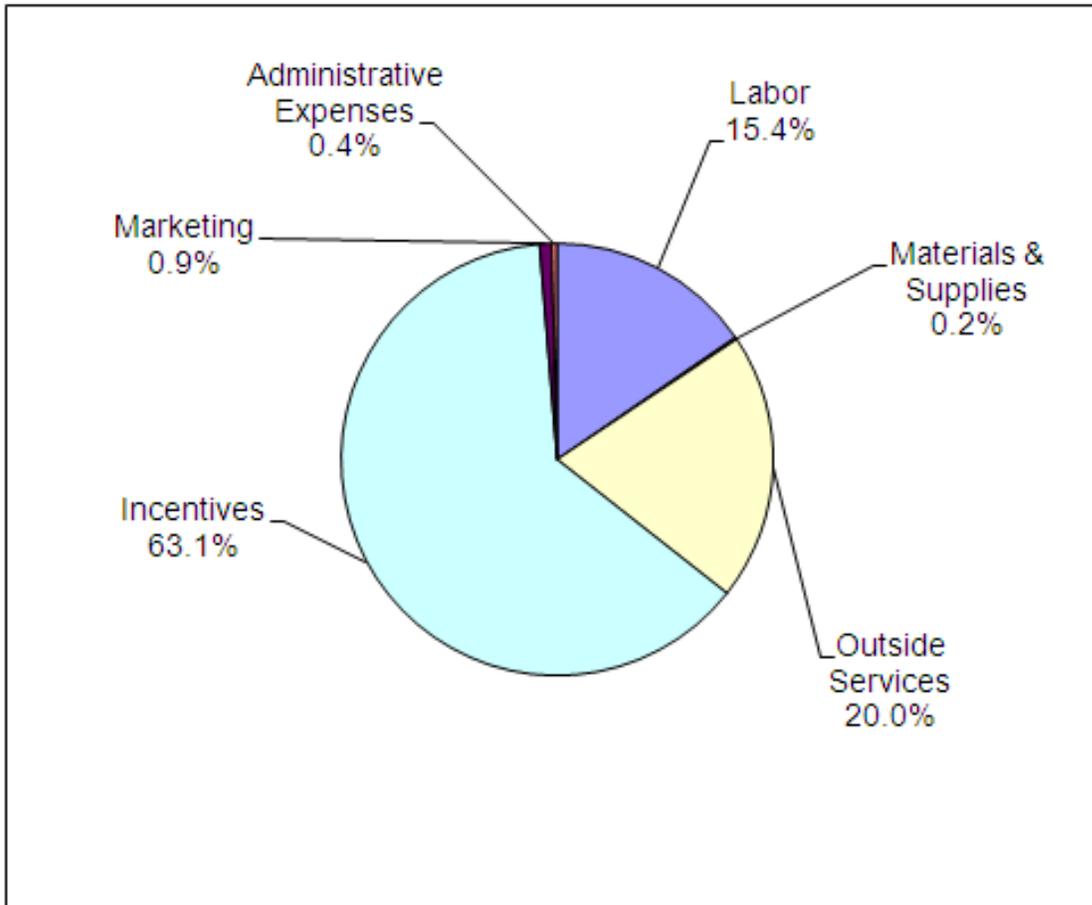
Program	2011 Budget	Customer Cost 2011	Total Resource Cost 2011	Gas Benefit	Total Resource Benefit	% of Budget 2010	Gas System B/C Ratio	Total Resource # Units	Units of Measure	Annualized Savings (ccf)	Lifetime Savings (ccf)	Peak Day Savings (ccf)	Annual Cost Rate (\$/ccf)	Lifetime Cost Rate (\$/ccf)
<b>RESIDENTIAL</b>														
YGS HES Income Eligible	\$ 930,000	\$ -	\$ 930,000	\$ 2,169,027	\$ 2,169,027	14.5%	2.33	2.33	Homes	156,774	2,394,163	1,329	\$ 5.93	\$ 0.39
CNG HES Income Eligible	\$ 825,172	\$ -	\$ 825,172	\$ 1,993,137	\$ 1,993,137	15.8%	2.41	2.41	Homes	134,146	2,180,736	1,181	\$ 6.16	\$ 0.38
SCG HES Income Eligible	\$ 925,803	\$ -	\$ 925,803	\$ 2,411,905	\$ 2,411,905	17.8%	2.61	2.61	Homes	165,213	2,765,352	1,390	\$ 5.50	\$ 0.33
<b>Sub Total HES Income Eligible</b>	<b>\$ 2,681,575</b>	<b>\$ -</b>	<b>\$ 2,681,575</b>	<b>\$ 6,574,070</b>	<b>\$ 6,574,070</b>	<b>15.8%</b>	<b>2.45</b>	<b>2.45</b>	<b>Homes</b>	<b>459,133</b>	<b>7,340,251</b>	<b>3,900</b>	<b>\$ 5.84</b>	<b>\$ 0.37</b>
YGS Home Energy Solutions	\$ 1,600,000	\$ 62,473	\$ 1,662,473	\$ 3,890,819	\$ 3,890,819	25.0%	2.43	2.43	Homes	243,065	4,532,590	2,136	\$ 6.58	\$ 0.35
CNG Home Energy Solutions	\$ 1,500,000	\$ 58,888	\$ 1,558,888	\$ 3,708,881	\$ 3,708,881	28.4%	2.47	2.38	Homes	231,251	4,325,856	2,034	\$ 6.49	\$ 0.35
SCG Home Energy Solutions	\$ 1,500,000	\$ 60,170	\$ 1,560,170	\$ 3,342,238	\$ 3,342,238	28.9%	2.23	2.14	Homes	232,898	3,780,021	1,927	\$ 6.44	\$ 0.40
<b>Sub Total Home Energy Solutions</b>	<b>\$ 4,600,000</b>	<b>\$ 181,531</b>	<b>\$ 4,781,531</b>	<b>\$ 10,941,938</b>	<b>\$ 10,941,938</b>	<b>27.8%</b>	<b>2.38</b>	<b>2.29</b>	<b>Homes</b>	<b>707,214</b>	<b>12,638,467</b>	<b>6,097</b>	<b>\$ 6.50</b>	<b>\$ 0.36</b>
YGS New Construction	\$ 500,000	\$ 252,872	\$ 752,872	\$ 790,643	\$ 790,643	7.8%	1.58	1.05	Homes	41,170	1,029,259	366	\$ 12.14	\$ 0.49
CNG New Construction	\$ 350,000	\$ 170,594	\$ 520,594	\$ 533,812	\$ 533,812	6.8%	1.53	1.03	Homes	27,797	694,916	247	\$ 12.59	\$ 0.50
SCG New Construction	\$ 300,000	\$ 143,002	\$ 443,002	\$ 447,473	\$ 447,473	5.8%	1.49	1.01	Homes	23,301	582,520	207	\$ 12.88	\$ 0.52
<b>Sub Total New Construction</b>	<b>\$ 1,150,000</b>	<b>\$ 566,268</b>	<b>\$ 1,716,268</b>	<b>\$ 1,771,928</b>	<b>\$ 1,771,928</b>	<b>6.8%</b>	<b>1.54</b>	<b>1.03</b>	<b>Homes</b>	<b>92,268</b>	<b>2,306,696</b>	<b>819</b>	<b>\$ 12.46</b>	<b>\$ 0.50</b>
YGS Water Heating	\$ 136,600	\$ 182,801	\$ 319,201	\$ 236,740	\$ 236,740	2.1%	1.73	0.74	Units	17,043	340,855	53	\$ 8.02	\$ 0.40
CNG Water Heating	\$ 105,400	\$ 143,070	\$ 248,470	\$ 185,488	\$ 185,488	2.0%	1.76	0.75	Units	13,353	287,064	41	\$ 7.89	\$ 0.39
SCG Water Heating	\$ 121,000	\$ 171,559	\$ 292,559	\$ 222,424	\$ 222,424	2.3%	1.84	0.76	Units	16,012	320,244	50	\$ 7.56	\$ 0.38
<b>Sub Total Water Heating</b>	<b>\$ 363,000</b>	<b>\$ 497,230</b>	<b>\$ 860,230</b>	<b>\$ 644,652</b>	<b>\$ 644,652</b>	<b>2.2%</b>	<b>1.78</b>	<b>0.75</b>	<b>Units</b>	<b>46,408</b>	<b>928,162</b>	<b>144</b>	<b>\$ 7.82</b>	<b>\$ 0.39</b>
<b>Subtotal Residential</b>	<b>\$ 8,794,575</b>	<b>\$ 1,245,028</b>	<b>\$ 10,039,603</b>	<b>\$ 19,932,587</b>	<b>\$ 19,932,587</b>	<b>52.1%</b>	<b>2.27</b>	<b>1.99</b>	<b>Homes/Units</b>	<b>1,305,023</b>	<b>23,213,576</b>	<b>10,960</b>	<b>\$ 6.74</b>	<b>\$ 0.36</b>
<b>Commercial and Industrial C&amp;I Lost Opportunity</b>														
YGS Energy Conscious Blueprint	\$ 1,480,000	\$ 1,379,540	\$ 2,859,540	\$ 2,374,940	\$ 2,374,940	23.1%	1.60	0.83	Projects	197,858	3,032,051	1,311	\$ 7.48	\$ 0.49
CNG Energy Conscious Blueprint	\$ 1,140,000	\$ 1,024,424	\$ 2,164,424	\$ 1,763,591	\$ 1,763,591	21.8%	1.55	0.81	Projects	148,926	2,251,551	974	\$ 7.76	\$ 0.51
SCG Energy Conscious Blueprint	\$ 1,050,000	\$ 903,926	\$ 1,953,926	\$ 1,556,148	\$ 1,556,148	20.2%	1.48	0.80	Projects	129,644	1,966,711	859	\$ 8.10	\$ 0.53
<b>Sub Total Lost Opportunity</b>	<b>\$ 3,670,000</b>	<b>\$ 3,307,890</b>	<b>\$ 6,977,890</b>	<b>\$ 5,694,679</b>	<b>\$ 5,694,679</b>	<b>21.8%</b>	<b>1.56</b>	<b>0.82</b>	<b>Projects</b>	<b>474,427</b>	<b>7,270,313</b>	<b>3,144</b>	<b>\$ 7.14</b>	<b>\$ 0.50</b>
<b>Commercial and Industrial Large Retrofit</b>														
YGS Energy Opportunities	\$ 1,020,000	\$ 1,475,937	\$ 2,495,937	\$ 6,112,362	\$ 6,112,362	15.9%	5.99	2.45	Projects	548,792	7,765,169	5,001	\$ 1.86	\$ 0.13
CNG Energy Opportunities	\$ 760,000	\$ 1,062,508	\$ 1,822,508	\$ 4,399,381	\$ 4,399,381	14.4%	5.79	2.41	Projects	394,994	5,588,992	3,600	\$ 1.92	\$ 0.14
SCG Energy Opportunities	\$ 700,000	\$ 925,938	\$ 1,625,938	\$ 3,834,626	\$ 3,834,626	13.5%	5.48	2.36	Projects	344,288	4,871,525	3,138	\$ 2.03	\$ 0.14
<b>Sub Total Energy Opportunities</b>	<b>\$ 2,480,000</b>	<b>\$ 3,464,182</b>	<b>\$ 5,944,182</b>	<b>\$ 14,346,370</b>	<b>\$ 14,346,370</b>	<b>14.7%</b>	<b>5.78</b>	<b>2.41</b>	<b>Projects</b>	<b>1,288,074</b>	<b>18,225,686</b>	<b>11,738</b>	<b>\$ 1.93</b>	<b>\$ 0.14</b>
YGS O&M	\$ 200,000	\$ 217,948	\$ 417,948	\$ 600,936	\$ 600,936	3.1%	3.00	1.44	Projects	81,689	653,353	742	\$ 2.45	\$ 0.31
CNG O&M	\$ 100,000	\$ 50,139	\$ 150,139	\$ 138,244	\$ 138,244	1.9%	1.38	0.92	Projects	18,788	150,303	171	\$ 5.32	\$ 0.67
SCG O&M	\$ 100,000	\$ 50,139	\$ 150,139	\$ 138,244	\$ 138,244	1.9%	1.38	0.92	Projects	18,788	150,303	171	\$ 5.32	\$ 0.67
<b>Sub Total O&amp;M</b>	<b>\$ 400,000</b>	<b>\$ 318,225</b>	<b>\$ 718,225</b>	<b>\$ 877,425</b>	<b>\$ 877,425</b>	<b>2.4%</b>	<b>2.19</b>	<b>1.22</b>	<b>Projects</b>	<b>119,245</b>	<b>963,959</b>	<b>1,083</b>	<b>\$ 3.35</b>	<b>\$ 0.42</b>
<b>Subtotal Commercial &amp; Industrial</b>	<b>\$ 6,550,000</b>	<b>\$ 7,090,296</b>	<b>\$ 13,640,296</b>	<b>\$ 20,918,474</b>	<b>\$ 20,918,474</b>	<b>38.8%</b>	<b>3.19</b>	<b>1.53</b>	<b>Projects</b>	<b>1,881,746</b>	<b>26,449,958</b>	<b>15,966</b>	<b>\$ 3.48</b>	<b>\$ 0.25</b>
<b>OTHER</b>														
YGS CHF Residential, C&I Loan Program	\$ 190,000	\$ -	\$ 190,000	\$ -	\$ -	3.0%	-	-						
CNG CHF Residential, C&I Loan Program	\$ 190,000	\$ -	\$ 190,000	\$ -	\$ -	3.6%	-	-						
SCG CHF Residential, C&I Loan Program	\$ 190,000	\$ -	\$ 190,000	\$ -	\$ -	3.7%	-	-						
<b>Sub Total Other - Loan Program</b>	<b>\$ 570,000</b>	<b>\$ -</b>	<b>\$ 570,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>3.4%</b>	<b>-</b>	<b>-</b>						
YGS IT, Planning, Evaluation, and EEB	\$ 344,500	\$ -	\$ 344,500	\$ -	\$ -	5.4%	-	-						
CNG IT, Planning, Evaluation, and EEB	\$ 305,500	\$ -	\$ 305,500	\$ -	\$ -	5.8%	-	-						
SCG IT, Planning, Evaluation, and EEB	\$ 305,500	\$ -	\$ 305,500	\$ -	\$ -	5.9%	-	-						
<b>Sub Total Other - Evaluation</b>	<b>\$ 955,500</b>	<b>\$ -</b>	<b>\$ 955,500</b>	<b>\$ -</b>	<b>\$ -</b>	<b>5.7%</b>	<b>-</b>	<b>-</b>						
<b>Subtotal Other</b>	<b>\$ 1,525,500</b>	<b>\$ -</b>	<b>\$ 1,525,500</b>	<b>\$ -</b>	<b>\$ -</b>	<b>9.0%</b>	<b>-</b>	<b>-</b>						
<b>PROGRAM SUBTOTALS</b>														
<b>YGS Residential</b>	<b>\$ 3,166,600</b>	<b>\$ 497,745</b>	<b>\$ 3,664,345</b>	<b>\$ 7,087,228</b>	<b>\$ 7,087,228</b>	<b>49.5%</b>				458,052	8,296,887	3,883	\$ 6.91	\$ 0.38
<b>CNG Residential</b>	<b>\$ 2,781,172</b>	<b>\$ 372,552</b>	<b>\$ 3,153,724</b>	<b>\$ 6,421,319</b>	<b>\$ 6,421,319</b>	<b>52.7%</b>				406,546	7,488,573	3,503	\$ 6.84	\$ 0.37
<b>SCG Residential</b>	<b>\$ 2,846,803</b>	<b>\$ 374,731</b>	<b>\$ 3,221,534</b>	<b>\$ 6,424,040</b>	<b>\$ 6,424,040</b>	<b>54.8%</b>				440,424	7,448,137	3,574	\$ 6.46	\$ 0.38
<b>Residential Total</b>	<b>\$ 8,794,575</b>	<b>\$ 1,245,028</b>	<b>\$ 10,039,603</b>	<b>\$ 19,932,587</b>	<b>\$ 19,932,587</b>	<b>52.1%</b>				<b>1,305,023</b>	<b>23,213,576</b>	<b>10,960</b>	<b>\$ 6.74</b>	<b>\$ 0.36</b>
<b>YGS C&amp;I</b>	<b>\$ 2,000,000</b>	<b>\$ 3,073,425</b>	<b>\$ 5,073,425</b>	<b>\$ 9,088,238</b>	<b>\$ 9,088,238</b>	<b>42.2%</b>				828,319	11,450,573	7,054	\$ 3.26	\$ 0.24
<b>CNG C&amp;I</b>	<b>\$ 2,000,000</b>	<b>\$ 2,136,870</b>	<b>\$ 4,136,870</b>	<b>\$ 6,301,217</b>	<b>\$ 6,301,217</b>	<b>37.9%</b>				560,708	7,990,846	4,744	\$ 3.57	\$ 0.25
<b>SCG C&amp;I</b>	<b>\$ 1,850,000</b>	<b>\$ 1,880,002</b>	<b>\$ 3,730,002</b>	<b>\$ 5,529,019</b>	<b>\$ 5,529,019</b>	<b>35.6%</b>				492,720	7,008,539	4,167	\$ 3.75	\$ 0.26
<b>C&amp;I Total</b>	<b>\$ 6,550,000</b>	<b>\$ 7,090,296</b>	<b>\$ 13,640,296</b>	<b>\$ 20,918,474</b>	<b>\$ 20,918,474</b>	<b>38.8%</b>				<b>1,881,746</b>	<b>26,449,958</b>	<b>15,966</b>	<b>\$ 3.48</b>	<b>\$ 0.25</b>
<b>YGS Other</b>	<b>\$ 495,500</b>	<b>\$ -</b>	<b>\$ 495,500</b>	<b>\$ -</b>	<b>\$ -</b>	<b>9.4%</b>				-	-	-		
<b>CNG Other</b>	<b>\$ 495,500</b>	<b>\$ -</b>	<b>\$ 495,500</b>	<b>\$ -</b>	<b>\$ -</b>	<b>9.4%</b>				-	-	-		
<b>SCG Other</b>	<b>\$ 495,500</b>	<b>\$ -</b>	<b>\$ 495,500</b>	<b>\$ -</b>	<b>\$ -</b>	<b>9.5%</b>				-	-	-		
<b>Other Total</b>	<b>\$ 1,525,500</b>	<b>\$ -</b>	<b>\$ 1,525,500</b>	<b>\$ -</b>	<b>\$ -</b>	<b>9.0%</b>				-	-	-		
<b>YGS TOTAL</b>	<b>\$ 5,276,672</b>	<b>\$ 2,509,422</b>	<b>\$ 7,786,094</b>	<b>\$ 12,722,556</b>	<b>\$ 12,722,556</b>	<b>31.3%</b>				1,286,371	19,747,440	10,938	\$ 4.98	\$ 0.32
<b>CNG TOTAL</b>	<b>\$ 5,192,303</b>	<b>\$ 2,254,733</b>	<b>\$ 7,447,036</b>	<b>\$ 11,953,059</b>	<b>\$ 11,953,059</b>	<b>30.8%</b>				967,254	15,459,418	8,247	\$ 5.46	\$ 0.34
<b>SCG TOTAL</b>	<b>\$ 16,870,075</b>	<b>\$ 8,335,325</b>	<b>\$ 25,205,400</b>	<b>\$ 40,851,061</b>	<b>\$ 40,851,061</b>	<b>100.0%</b>				3,186,769	49,663,633	26,927	\$ 5.29	\$ 0.34
<b>GRAND TOTAL</b>	<b>\$ 28,836,950</b>	<b>\$ 11,099,480</b>	<b>\$ 39,936,430</b>	<b>\$ 64,426,677</b>	<b>\$ 64,426,677</b>	<b>100.0%</b>				<b>3,186,769</b>	<b>49,663,633</b>	<b>26,927</b>	<b>\$ 5.29</b>	<b>\$ 0.34</b>

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**Table C**  
**YGS 2011 Budget Details**

<b>GAS CONSERVATION BUDGET (\$000)</b>	<b>Labor</b>	<b>Materials &amp; Supplies</b>	<b>Outside Services</b>	<b>Incentives</b>	<b>Marketing</b>	<b>Administrative Expenses</b>	<b>TOTAL</b>
<b>RESIDENTIAL</b>							
HES Income Eligible - Weatherization	\$ 168,910	\$ 2,340	\$ 63,120	\$ 660,950	\$ 2,925	\$ 1,755	\$ 900,000
HES Income Eligible - Audits			\$ 30,000				\$ 30,000
<b>HES Income Eligible Total</b>	<b>\$ 168,910</b>	<b>\$ 2,340</b>	<b>\$ 93,120</b>	<b>\$ 660,950</b>	<b>\$ 2,925</b>	<b>\$ 1,755</b>	<b>\$ 930,000</b>
Home Energy Solutions (HES)	\$ 281,960	\$ 4,800	\$ 520,960	\$ 762,680	\$ 24,000	\$ 5,600	\$ 1,600,000
Residential New Construction	\$ 34,580	\$ 1,200	\$ 76,150	\$ 372,570	\$ 11,500	\$ 4,000	\$ 500,000
Water Heating	\$ 26,600	\$ 500	\$ 8,000	\$ 91,300	\$ 8,210	\$ 1,990	\$ 136,600
<b>Subtotal Residential</b>	<b>\$ 512,050</b>	<b>\$ 8,840</b>	<b>\$ 698,230</b>	<b>\$ 1,887,500</b>	<b>\$ 46,635</b>	<b>\$ 13,345</b>	<b>\$ 3,166,600</b>
<b>COMMERCIAL &amp; INDUSTRIAL LOST OPPORTUNITY</b>							
Energy Conscious Blueprint	\$ 212,800	\$ 494	\$ 81,764	\$ 1,172,020	\$ 4,810	\$ 8,112	\$ 1,480,000
<b>Subtotal C&amp;I - Lost Opportunity</b>	<b>\$ 212,800</b>	<b>\$ 494</b>	<b>\$ 81,764</b>	<b>\$ 1,172,020</b>	<b>\$ 4,810</b>	<b>\$ 8,112</b>	<b>\$ 1,480,000</b>
<b>COMMERCIAL &amp; INDUSTRIAL LARGE RETROFIT</b>							
Process Retrofit Pilot	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Energy Opportunities	\$ 107,730	\$ 360	\$ 52,268	\$ 851,722	\$ 3,060	\$ 4,860	\$ 1,020,000
Operations & Maintenance	\$ 65,170	\$ 500	\$ 5,500	\$ 125,930	\$ 2,600	\$ 300	\$ 200,000
<b>Subtotal C&amp;I - Lost Opportunity</b>	<b>\$ 172,900</b>	<b>\$ 860</b>	<b>\$ 57,768</b>	<b>\$ 977,652</b>	<b>\$ 5,660</b>	<b>\$ 5,160</b>	<b>\$ 1,220,000</b>
<b>Subtotal C&amp;I</b>	<b>\$ 385,700</b>	<b>\$ 1,354</b>	<b>\$ 139,532</b>	<b>\$ 2,149,672</b>	<b>\$ 10,470</b>	<b>\$ 13,272</b>	<b>\$ 2,700,000</b>
<b>OTHER - PROGRAMS/REQUIREMENTS &amp; PLANNING</b>							
CHIF Loan Fund		\$ 50,000					\$ 50,000
Residential Financing Subsidies		\$ 90,000					\$ 90,000
C&I Financing Subsidies		\$ 50,000					\$ 50,000
Information Technology		\$ 35,000					\$ 35,000
Planning	\$ 59,000						\$ 59,000
Evaluation	\$ 31,920		\$ 202,080				\$ 234,000
Energy Efficiency Board			\$ 16,500				\$ 16,500
<b>Subtotal Other</b>	<b>\$ 90,920</b>	<b>\$ -</b>	<b>\$ 443,580</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 534,500</b>
<b>PROGRAM SUBTOTALS</b>							
<b>Residential</b>	<b>\$ 512,050</b>	<b>\$ 8,840</b>	<b>\$ 838,230</b>	<b>\$ 1,887,500</b>	<b>\$ 46,635</b>	<b>\$ 13,345</b>	<b>\$ 3,306,600</b>
<b>C&amp;I</b>	<b>\$ 385,700</b>	<b>\$ 1,354</b>	<b>\$ 189,532</b>	<b>\$ 2,149,672</b>	<b>\$ 10,470</b>	<b>\$ 13,272</b>	<b>\$ 2,750,000</b>
<b>Other</b>	<b>\$ 90,920</b>	<b>\$ -</b>	<b>\$ 253,580</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 344,500</b>
<b>TOTAL BUDGET</b>	<b>\$ 988,670</b>	<b>\$ 10,194</b>	<b>\$ 1,281,343</b>	<b>\$ 4,037,172</b>	<b>\$ 57,105</b>	<b>\$ 26,617</b>	<b>\$ 6,401,100</b>

**YGS**  
**2011 Gas Conservation**  
**Budget By Expense Class**

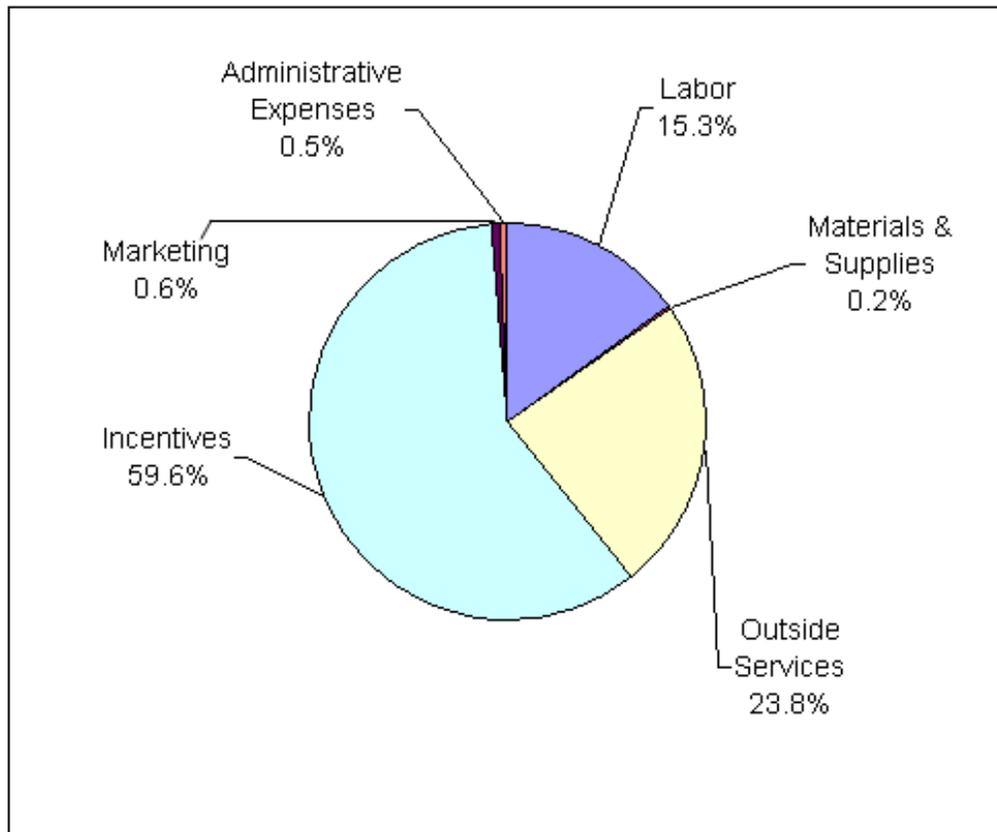


Expense Classes	Budget	% of Budget
Labor	\$ 988,670	15.4%
Materials & Supplies	\$ 10,194	0.2%
Outside Services	\$ 1,281,343	20.0%
Incentives	\$ 4,037,172	63.1%
Marketing	\$ 57,105	0.9%
Administrative Expenses	\$ 26,617	0.4%
<b>Total</b>	<b>\$ 6,401,100</b>	<b>100.00%</b>

**Table C  
CNG 2011 Budget Details**

<b>GAS CONSERVATION BUDGET (\$000)</b>	<b>Labor</b>	<b>Materials &amp; Supplies</b>	<b>Outside Services</b>	<b>Incentives</b>	<b>Marketing</b>	<b>Administrative Expenses</b>	<b>TOTAL</b>
<b>RESIDENTIAL</b>							
HES Income Eligible - Weatherization	\$ 134,995	\$ 2,800	\$ 53,560	\$ 604,485	\$ 2,080	\$ 2,080	\$ 800,000
HES Income Eligible - Audits			\$ 25,772				\$ 25,772
<b>HES Income Eligible Total</b>	<b>\$ 134,995</b>	<b>\$ 2,800</b>	<b>\$ 79,332</b>	<b>\$ 604,485</b>	<b>\$ 2,080</b>	<b>\$ 2,080</b>	<b>\$ 825,772</b>
Home Energy Solutions (HES)	\$ 255,360	\$ 4,320	\$ 517,855	\$ 705,230	\$ 10,755	\$ 6,480	\$ 1,500,000
Residential New Construction	\$ 33,250	\$ 840	\$ 53,305	\$ 251,545	\$ 8,260	\$ 2,800	\$ 350,000
Water Heating	\$ 22,610	\$ 500	\$ 2,305	\$ 71,535	\$ 6,450	\$ 2,000	\$ 105,400
<b>Subtotal Residential</b>	<b>\$ 446,215</b>	<b>\$ 8,460</b>	<b>\$ 652,797</b>	<b>\$ 1,632,795</b>	<b>\$ 27,545</b>	<b>\$ 13,360</b>	<b>\$ 2,781,172</b>
<b>COMMERCIAL &amp; INDUSTRIAL LOST OPPORTUNITY</b>							
Energy Conscious Blueprint	\$ 150,290	\$ 3,150	\$ 107,507	\$ 870,323	\$ 3,060	\$ 5,670	\$ 1,140,000
<b>Subtotal C&amp;I - Lost Opportunity</b>	<b>\$ 150,290</b>	<b>\$ 3,150</b>	<b>\$ 107,507</b>	<b>\$ 870,323</b>	<b>\$ 3,060</b>	<b>\$ 5,670</b>	<b>\$ 1,140,000</b>
<b>COMMERCIAL &amp; INDUSTRIAL LARGE RETROFIT</b>							
Energy Opportunities	\$ 71,820	\$ 198	\$ 66,974	\$ 613,028	\$ 1,980	\$ 6,000	\$ 760,000
Operations & Maintenance	\$ 61,180	\$ 50	\$ 9,000	\$ 28,970	\$ 300	\$ 500	\$ 100,000
<b>Subtotal C&amp;I - Lost Opportunity</b>	<b>\$ 133,000</b>	<b>\$ 248</b>	<b>\$ 75,974</b>	<b>\$ 641,998</b>	<b>\$ 2,280</b>	<b>\$ 6,500</b>	<b>\$ 860,000</b>
<b>Subtotal C&amp;I</b>	<b>\$ 283,290</b>	<b>\$ 3,398</b>	<b>\$ 183,481</b>	<b>\$ 1,512,321</b>	<b>\$ 5,340</b>	<b>\$ 12,170</b>	<b>\$ 2,000,000</b>
<b>OTHER - PROGRAMS/REQUIREMENTS &amp; PLANNING</b>							
CHIF Loan Fund		\$ 50,000					\$ 50,000
Residential Financing Subsidies		\$ 90,000					\$ 90,000
C&I Financing Subsidies		\$ 50,000					\$ 50,000
Information Technology		\$ 30,000					\$ 30,000
Planning	\$ 51,000						\$ 51,000
Evaluation	\$ 25,270		\$ 182,730				\$ 208,000
Energy Efficiency Board			\$ 16,500				\$ 16,500
<b>Subtotal Other</b>	<b>\$ 419,230</b>	<b>\$ -</b>	<b>\$ 419,230</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 495,500</b>
<b>PROGRAM SUBTOTALS</b>							
<b>Residential</b>	<b>\$ 446,215</b>	<b>\$ 8,460</b>	<b>\$ 792,797</b>	<b>\$ 1,632,795</b>	<b>\$ 27,545</b>	<b>\$ 13,360</b>	<b>\$ 2,921,172</b>
<b>C&amp;I</b>	<b>\$ 283,290</b>	<b>\$ 3,398</b>	<b>\$ 233,481</b>	<b>\$ 1,512,321</b>	<b>\$ 5,340</b>	<b>\$ 12,170</b>	<b>\$ 2,050,000</b>
<b>Other</b>	<b>\$ 76,270</b>	<b>\$ -</b>	<b>\$ 229,230</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 305,500</b>
<b>TOTAL BUDGET</b>	<b>\$ 805,775</b>	<b>\$ 11,858</b>	<b>\$ 1,255,508</b>	<b>\$ 3,145,116</b>	<b>\$ 32,885</b>	<b>\$ 25,530</b>	<b>\$ 5,276,672</b>

**CNG**  
**2011 Gas Conservation**  
**Budget By Expense Class**

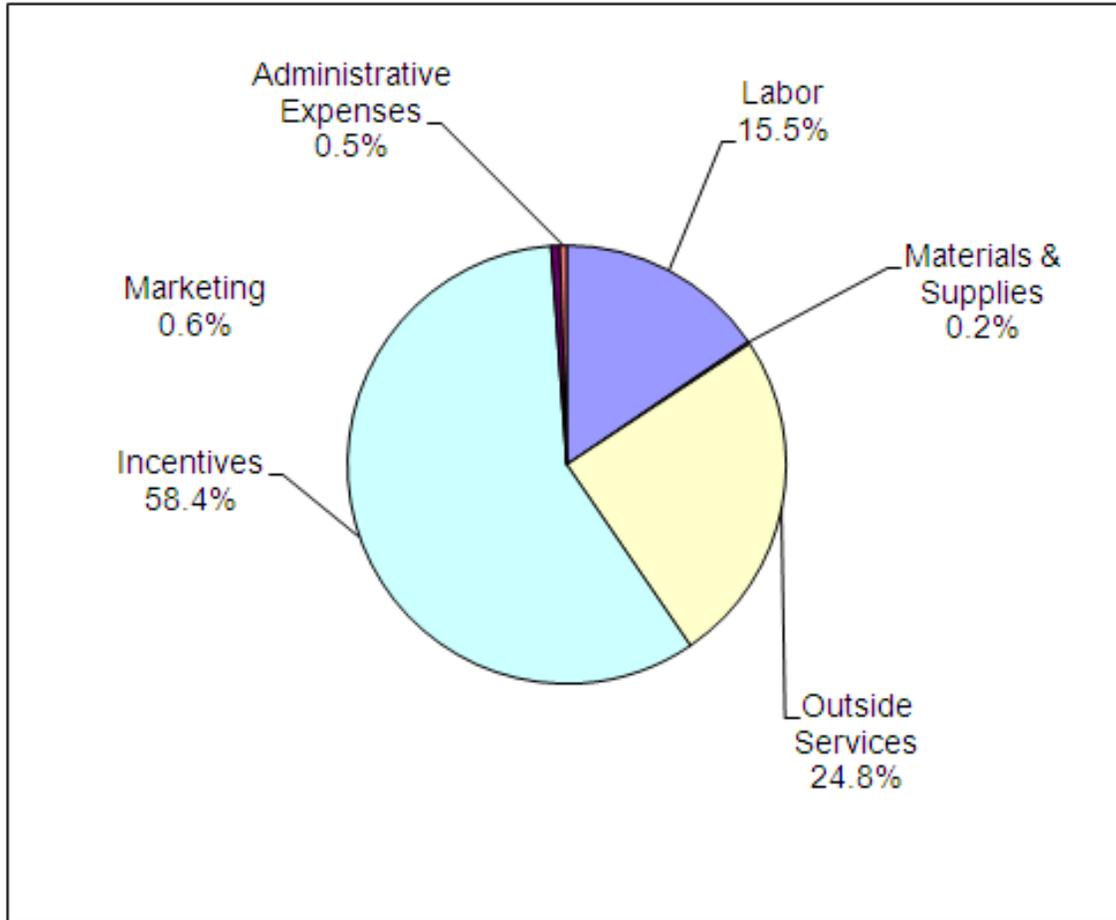


<b>Expense Classes</b>	<b>Budget</b>	<b>% of Budget</b>
Labor	\$ 805,775	15.3%
Materials & Supplies	\$ 11,858	0.2%
Outside Services	\$ 1,255,508	23.8%
Incentives	\$ 3,145,116	59.6%
Marketing	\$ 32,885	0.6%
Administrative Expenses	\$ 25,530	0.5%
<b>Total</b>	<b>\$ 5,276,672</b>	<b>100.00%</b>

**Table C**  
**SCG 2011 Budget Details**

<b>GAS CONSERVATION BUDGET (\$000)</b>	<b>Labor</b>	<b>Materials &amp; Supplies</b>	<b>Outside Services</b>	<b>Incentives</b>	<b>Marketing</b>	<b>Administrative Expenses</b>	<b>TOTAL</b>
<b>RESIDENTIAL</b>							
HES Income Eligible - Weatherization	\$ 134,995	\$ 3,240	\$ 62,100	\$ 694,805	\$ 2,430	\$ 2,430	\$ 900,000
HES Income Eligible - Audits			\$ 25,803				\$ 25,803
<b>HES Income Eligible Total</b>	\$ 134,995	\$ 3,240	\$ 87,903	\$ 694,805	\$ 2,430	\$ 2,430	\$ 925,803
Home Energy Solutions (HES)	\$ 255,360	\$ 4,350	\$ 514,350	\$ 708,950	\$ 10,540	\$ 6,450	\$ 1,500,000
Residential New Construction	\$ 33,250	\$ 720	\$ 45,690	\$ 210,860	\$ 7,080	\$ 2,400	\$ 300,000
Water Heating	\$ 22,610	\$ 496	\$ 2,638	\$ 85,780	\$ 7,477	\$ 2,000	\$ 121,000
<b>Subtotal Residential</b>	\$ <b>446,215</b>	\$ <b>8,806</b>	\$ <b>650,581</b>	\$ <b>1,700,394</b>	\$ <b>27,527</b>	\$ <b>13,280</b>	\$ <b>2,846,803</b>
<b>COMMERCIAL &amp; INDUSTRIAL LOST OPPORTUNITY</b>							
Energy Conscious Blueprint	\$ 150,290	\$ 324	\$ 122,444	\$ 767,951	\$ 3,213	\$ 5,778	\$ 1,050,000
<b>Subtotal C&amp;I - Lost Opportunity</b>	\$ <b>150,290</b>	\$ <b>324</b>	\$ <b>122,444</b>	\$ <b>767,951</b>	\$ <b>3,213</b>	\$ <b>5,778</b>	\$ <b>1,050,000</b>
<b>COMMERCIAL &amp; INDUSTRIAL LARGE RETROFIT</b>							
Energy Opportunities	\$ 71,820	\$ 228	\$ 84,583	\$ 534,333	\$ 2,256	\$ 6,780	\$ 700,000
Operations & Maintenance	\$ 61,180	\$ 50	\$ 9,000	\$ 28,970	\$ 300	\$ 500	\$ 100,000
<b>Subtotal C&amp;I - Lost Opportunity</b>	\$ <b>133,000</b>	\$ <b>278</b>	\$ <b>93,583</b>	\$ <b>563,303</b>	\$ <b>2,556</b>	\$ <b>7,280</b>	\$ <b>800,000</b>
<b>Subtotal C&amp;I</b>	\$ <b>283,290</b>	\$ <b>602</b>	\$ <b>216,028</b>	\$ <b>1,331,253</b>	\$ <b>5,769</b>	\$ <b>13,058</b>	\$ <b>1,850,000</b>
<b>OTHER - PROGRAMS/REQUIREMENTS &amp; PLANNING</b>							
CHIF Loan Fund			\$ 50,000				\$ 50,000
Residential Financing Subsidies			\$ 90,000				\$ 90,000
C&I Financing Subsidies			\$ 50,000				\$ 50,000
Information Technology			\$ 30,000				\$ 30,000
Planning	\$ 51,000						\$ 51,000
Evaluation	\$ 25,270		\$ 182,730				\$ 208,000
Energy Efficiency Board			\$ 16,500				\$ 16,500
<b>Subtotal Other</b>	\$ <b>76,270</b>	\$ <b>-</b>	\$ <b>419,230</b>	\$ <b>-</b>	\$ <b>-</b>	\$ <b>-</b>	\$ <b>495,500</b>
<b>PROGRAM SUBTOTALS</b>							
<b>Residential</b>	\$ 446,215	\$ 8,806	\$ 790,581	\$ 1,700,394	\$ 27,527	\$ 13,280	\$ 2,986,803
<b>C&amp;I</b>	\$ 283,290	\$ 602	\$ 266,028	\$ 1,331,253	\$ 5,769	\$ 13,058	\$ 1,900,000
<b>Other</b>	\$ 76,270	\$ -	\$ 229,230	\$ -	\$ -	\$ -	\$ 305,500
<b>TOTAL BUDGET</b>	\$ <b>805,775</b>	\$ <b>9,408</b>	\$ <b>1,285,838</b>	\$ <b>3,031,647</b>	\$ <b>33,296</b>	\$ <b>26,338</b>	\$ <b>5,192,303</b>

**SCG**  
**2011 Gas Conservation**  
**Budget By Expense Class**



Expense Classes	Budget	% of Budget
Labor	\$ 805,775	15.5%
Materials & Supplies	\$ 9,408	0.2%
Outside Services	\$ 1,285,838	24.8%
Incentives	\$ 3,031,647	58.4%
Marketing	\$ 33,296	0.6%
Administrative Expenses	\$ 26,338	0.5%
<b>Total</b>	<b>\$ 5,192,303</b>	<b>100.00%</b>

## CHAPTER TWO: RESIDENTIAL PROGRAMS

### Residential Overview (Electric and Natural Gas)

In 2011, the Electric and Natural Gas Companies' Residential programs will continue to offer residential customers a variety of nationally recognized in-home services and rebates to help them save energy and money. The Residential programs are constantly assessed, modified and reviewed to meet building code standards, customer demands, and to ensure cost-effectiveness.

As noted in Chapter One, the Electric and Natural Gas Companies and the EEB are continuing to work collaboratively with the Office of Policy & Management ("CT-OPM") to include American Recovery and Reinvestment Act of 2009 ("ARRA") dollars into the Home Energy Solutions (HES) program, which is helping bring fuel-blind energy efficiency and conservation services to all Connecticut consumers. In addition, the Electric Companies, in conjunction with CT-OPM, implemented an ENERGY STAR appliance, Central Air-Conditioning and Hot Water Heater rebate program (CT-ARP) to customers in Connecticut, which was overwhelmingly successful and was funded through ARRA.

The flagship residential program is the Home Energy Solutions (HES) Program. The HES Program began in 2006 as a residential duct sealing pilot. Since that time, it's grown to a multi-million dollars retrofit program with 18 vendors delivering "Core Services" to customers throughout Connecticut. In 2011, the Companies' limited income programs (UI Helps and WRAP) will be merged under the existing HES umbrella allowing the Companies to market a single program which all customers may be able to participate in. The former WRAP and UI Helps programs' names will now be called HES-Income Eligible (HES-IE). This change will provide more consistency in weatherization practices, vendor training and create a seamless brand identity for residential customers.

In 2008, the Department established a formal Home Energy Solutions Working Group consisting of representatives from the participating Electric and Natural Gas Companies, HES vendors, the EEB, and other interested parties. The HES Working Group first met on February 24, 2009. During this initial meeting, the group developed a mission statement: *minimizing total energy consumption and peak demand by maximizing energy efficiency in residential structures*. The HES Working Group is charged with developing the long-term goal of transforming HES into a market-based program: *to shift from an efficiency program that is dependent on ratepayer funding to a*

*self sustaining industry that can be leveraged by Connecticut Energy Efficiency Fund funding.*

The HES program is continuing toward a market-based approach. There are approximately 130 technicians in Connecticut that have been trained as Building Performance Institute Building Analysts I. In October 2010, the Companies will be issuing an RFP for HES Core Services vendors and updated Core Services Pricing. In 2011, the Companies look to continue to seek qualified contractors through the RFP process who can provide comprehensive in-home services at cost-effective rates.

In 2010, the Companies worked collaboratively with the Office of Policy & Management (CT-OPM) to include American Recovery and Reinvestment Act of 2009 (ARRA) dollars into the programs. This funding may continue into 2011 and will allow the Companies to serve additional fossil fuel customers in the Home Energy Solutions program, until such time that the funding is exhausted.

The Electric and Natural Gas Companies developed an enhanced pilot financing option for residential customers in 2010. Currently, a 2.99 percent financing option is offered for qualifying residential energy efficiency projects from \$2,000 to \$6,999, and zero percent financing options is offered for qualifying residential energy efficiency projects from \$7,000 to \$20,000. These are unsecured third party loans offered though AFC First Financial Corporation ("AFC"). Both of these options were rolled out to the HES and AFC contractors in May, 2010.

In 2011, the Companies and the EEB will monitor and adjust the customer buy-down rates based on the costs of the sources of capital in order to serve more customers and provide financing solutions while maximizing rate payer dollars.

As directed by the Department, the Companies kicked-off the Customer Behavioral Software Pilot in September of 2010. The Companies will begin issuing customized customer reporting by the end of 2010, with the full launch of customer reporting in the first quarter of 2011. The pilot will be implemented in three (3) phases to provide customer energy information which will have measurable impacts on conservation and energy efficiency for residential households, small businesses and municipal buildings. Each phase will last for one year. The pilots will track electric savings with natural gas savings to be added later in 2011.

Although use of the common compact fluorescent light bulb ("CFL") has become more acceptable by residential consumers and is widely available through various retail channels, socket saturation of CFLs is around 15-20 percent while over 30 percent of

households in Connecticut lack CFLs as noted by “The Market for CFLs in Connecticut” evaluation conducted by the EEB. Additionally, the Energy Independence and Security Act (“EISA”) of 2007 will begin phasing out the use of general service incandescent bulbs in 2012. These two factors have helped steer the focus of the Retail Products program towards the continued promotion of standard and specialty bulbs. At this point, it is unclear what impact the legislation will have on both the standard and the specialty bulb market.

In 2007, Ductless Split Heat Pumps (“DSHPs”) was piloted and a follow-up evaluation was completed in 2009. Based on favorable results, the Companies plan to continue to target electric heat customers for the installation of DSHPs. DSHPs will be marketed under the HES umbrella to all electric heat customers, but due to a disproportionate number of Connecticut’s electric heat customers living in multi-family complexes, they will be especially targeted through the HES Multi-Family initiative.

ENERGY STAR finalized requirements in 2009 for Heat Pump Water Heaters (“HPWHs”), which include a six (6) year warranty on the sealed system and a minimum co-efficient of performance (COP) of 2.0. Currently there are 13 manufacturers that make units that meet or exceed ENERGY STAR standards. HPWH’s are being manufactured by established and well known companies including Rheem, GE, Whirlpool and AO Smith and are available through existing local retail channels.

As part of the CT-ARP, ENERGY STAR HPWHs were promoted through a \$400 mail-in rebate utilizing ARRA Funds. Of the water heaters rebated through the ARRA Program, 53 percent were HPWH technology. The Companies will implement, upon DPUC approval, a \$400 Energy Efficiency Fund incentive to be paid for qualifying HPWHs for customers that are replacing existing electric resistance water heaters. Funds for this incentive are available in the Companies’ HES Program budgets. This recommendation is based on the commercial availability of HPWHs and the need to provide an efficient alternative for electric resistance water heaters.

In conjunction with the \$400 incentive, the Companies and the EEB will continue to monitor the development of HPWH technology, and will solicit feedback from participating customers and contractors. The purpose of this follow-up work will be to gain additional installation and operational feedback from contractors and customers, and to document various system dependability attributes in order to increase the basic understanding of the potential of this technology in the Northeast housing market. These findings will be reported back to the DPUC in 2011 and will be used to develop additional recommendations to help refine the program.

## Significant Residential Program Changes

The following is a summary of significant Residential program changes for 2011. Details of these changes are found in the individual program write-ups.

- In 2011, the Companies' limited income programs (UI Helps and WRAP) will be merged into the HES umbrella allowing the Companies to market a single program which all customers may be able to participate in. This change will make the program and process more transparent to customers.
- The **Retail Products** program will continue to aggressively promote and provide upstream incentives for CFL bulbs in order to reach the DPUC mandated socket saturation goal of thirty-six percent. In 2010, a number of strategic in-store promotions were negotiated for prime sales space including end-cap space. In particular, a large end-cap display was negotiated with Home Depot for 2010 through 2011. Preliminary results show a dramatic upswing in sales resulting from these efforts.
- The Electric Companies will continue to explore the feasibility of offering LED lighting products. ENERGY STAR has finalized LED bulb/lamp specifications in August 2010. Currently, there are hundreds of LED fixtures that meet the ENERGY STAR fixture requirement; however there are no LED bulbs/lamps that qualify.
- Based on the success of the **Zero Energy Homes Challenge**, the **Residential New Construction program** will continue to focus more resources on high-performing homes (i.e., homes that use 50 percent or less energy compared to a code-built home) and on phasing in the next version of ENERGY STAR<sup>®</sup> homes requirements, which are expected to be in place in 2011.
- The criteria for **Geothermal Systems** in existing homes will be tightened. For existing homes, participation in the HES program continues to be a requirement. Additionally, homes must meet minimum insulation and building enclosure criteria before qualifying for an incentive. This requirement is similar to the existing requirement for new homes which states that the home must meet ENERGY STAR<sup>®</sup> standards. All geothermal equipment must meet or exceed ENERGY STAR 2012 specifications.
- **Heat Pump Water Heaters ("HPWHs")** will be offered through HES. The Companies are cognizant of potential issues that may arise if units are not installed properly, and plan on working with industry professionals to ensure proper installation standards are followed. HPWHs are currently available

through big-box retail channels and a number of large manufacturers carry HPWHs in their product line.

- **The Residential New Construction Program (“RNC”)** will begin to phase in new ENERGY STAR 3.0 requirements. The transition will begin in 2011 with ENERGY STAR 2.5 requirements and ENERGY STAR 3.0 requirements by 2012. All projects must meet these standards in order to receive the ENERGY STAR label. The new ENERGY STAR requirements include additional Thermal Enclosure System requirements, thermal bridging criteria and water management systems. These requirements represent a significant increase in building science requirements and increase the differentiation between an ENERGY STAR and “standard” new home in energy efficiency and durability performance.
- **Financing.** The Companies will continue to work to develop attractive and cost effective financing options for residential customers. Low cost financing will allow the Companies to stretch Energy Efficiency Fund dollars further and will allow customers to implement more comprehensive projects.
- **Codes and Standards.** For the Retail Products Program, the Companies will explore the feasibility of developing higher standards for various products including furnaces, television set top boxes, hot tubs, pool heaters, and electronics products. For the Residential New Construction Program, the Companies will work with local building officials and builders to help prepare the market for the expected transition to the 2009 International Energy Efficiency Code (2009 IECC), which is expected to be adopted in 2011.

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## Residential Retail Products (Electric)

**Objective:** The Retail Products program pursues the objective of continuing to build awareness, consumer acceptance and market share of ENERGY STAR® lighting, appliances and electronics. In particular, the 2011 Retail Products Program will focus on increasing socket penetration of efficient lighting products in homes.

**Target Market:** The Companies will target residential customers who purchase new lighting, appliances and electronics in retail market channels while coordinating also with the residential remodeling, retrofit and new construction channels.

**Program Description:** For 2011, the Companies intend to continue with a multi-pronged focus on lighting, appliance and electronics products. For lighting, Negotiated Cooperative Promotions (“NCPs”) have proven to be a useful approach in generating increased stocking and sales of lighting products at considerably lower cost than traditional coupons and rebates. Such promotions involve a partnership between the Companies and retailers/manufacturers that tie payment of incentives to the Companies’ receipt of store-level sales data. Coupons and mail-in rebates can be utilized if NCPs are not brought under agreement or on a temporary campaign-oriented basis only.

In 2011, the Companies plan to continue partnering with both manufacturers and retailers to offer education and training regarding the benefits of energy-efficient products to local retail sales staff and consumers. In 2010, the Companies worked with retailers to strategically secure special retail placement of lighting products such as isle end-cap space in big box stores. This strategy proved to be effective at increasing CFL sales. The Companies will continue to work collaboratively with manufacturers and retailers in the design and placement of point-of-purchase display collateral. “In-store promotions” will be pursued to assist retailers in promoting the program and to educate consumers on the positive benefits and quick payback provided by energy-efficient technologies.

The Companies also plan to continue implementing retail lighting sales events. At these events, Company vendors offer lighting products for retail sale at community events, fairs, and large customer enterprises.

The Companies will continue with a streamlined printed version of the SmartLiving™ Catalog, which is distributed at outreach events and mailed to customers upon request. The focus of the catalog will be specialty CFL bulbs as well as emerging Light Emitting Diode (LED) lighting products. The SmartLivingCatalog.com website will be promoted via bill messaging and links from the Companies' web sites and CTEnergyInfo.com.

In 2011, the Companies will not offer an "everyday" in-store rebate for appliances or electronics, as data shows ENERGY STAR rebates are generally not a cost-effective strategy. However, the Companies will consider limited NCP promotions with retailers and manufacturers (which may or may not include customer rebates) on a case-by-case basis as a means of maintaining a market presence. Promotions will be considered for specific time periods, such as Earth Day and to coincide with manufacturer, retailer, state or federal promotions that promote/target the highest tier efficiency within the product category. The Companies will also be studying feasibility of leveraging the highest efficiency products available through NEEP's TopTen initiative. TopTen is part of a global effort first launched in Europe to identify the highest performing appliances and other products.

Additionally, the Companies will continue to offer CFL fundraising opportunities to schools and civic groups through "Shining Solutions". The fundraising program will encourage children between grades K-12 to be energy efficient and recognize the environmental consequences of wasting energy, i.e., global warming. The fundraising program will motivate children to promote responsibility for saving energy through the sale of CFLs and stimulate general awareness utilizing instructional kick-off presentations. The fundraising program is cross-promoted to teachers/schools who participate in the

*eesmarts* program and professional development workshops as well as through the eeCommunities Program.

The Companies are working with a group of national stakeholders to study the feasibility of developing efficient dryer technology to US households through the Super Efficient Dryer Initiative (SEDI). Among the technologies being considered are heat pump dryers. Heat pump dryers are currently available in European markets, however, they are still expensive and their design is not aligned with the needs of the typical United States consumer (i.e., they are too small).

Marketing Strategy: The marketing strategy for the Retail Products program will continue to focus on building brand awareness of the unique benefits of energy-efficient products within the Companies' service territories. Specifically, the marketing of the program may include:

- Retail point-of-purchase materials to highlight the benefits of energy efficient products.
- The Companies will continue to seek out special retail placement opportunities including end-cap spaces and entrance displays.
- Print, radio and on-line ads will promote CFL products and will direct customers to look for the Energy Efficiency Fund logo when they purchase lighting products.
- Bill inserts to promote the SmartLiving Catalog.
- Articles on the benefits of ENERGY STAR products will be placed in community and association newsletters (print and online).
- The SmartLiving Catalog will be distributed at events where the Companies are exhibiting such as home shows, community forums, fairs, Utility Days, etc.
- Cooperative opportunities with retailers and manufacturers will be leveraged to create general awareness of the ENERGY

STAR brand, generate sales and extend the message into the community.

- Continued support of national and regional ENERGY STAR initiatives.
- Cross-marketing opportunities with relevant state-wide Fund programs such as Residential New Construction, *eesmarts*, and Home Energy Solutions.

**Incentive Strategy:** As the lighting and appliance markets both evolve, the Companies plan to define specific incentive amounts or strategies for the targeted products as the market dictates. In addition, the Companies will look to increase promotion of CFLs in retail outlets where sales data has shown that sales trail those of Big Box retailers. As such, specific attention will be given to grocery and drug store chains.

However, certain expectations and assumptions have been utilized for planning purposes, including:

2011 base rebate levels are:

- NCP incentives for CFL common and specialty bulbs vary by wattage and style.
- \$10 per interior light fixture, portable lamp, or qualifying ceiling fan with light kits. Incentives for LED products are determined on a case-by-case basis.
- Appliances and electronics incentives (if any) will be considered on a case-by-case basis.

**Goals:** Refer to standard filing requirement for program goals.

**New Program Issues:** The Companies have a joint goal of achieving thirty six percent socket penetration by the end of 2011.<sup>2</sup> In order to achieve this goal, total new CFL residential installations will have to increase by over seven million bulbs in two years (2010 - 2011). In order

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<sup>2</sup> DPUC Final Decision, DATE, Docket No. 09-10-03 and Docket No. 08-10-02. The Companies were ordered to set a goal of thirty six percent socket penetration by the end of 2011. An evaluation will be conducted at the end of 2011 to measure the Companies performance in meeting this objective.

to account for the installation rate, the Companies estimate that CFL sales during this two year period will have to reach approximately 10 million bulbs. However, this is a speculative estimate because there are challenges associated with developing a conversion factor to estimate socket saturation based on sales. As CFLs continue to become more of a commodity, consumers may stockpile higher numbers of CFLs. Also, to reach this level of sales, the Companies will be relying upon a high percentage of multipack bulbs. The high number of multi-packs adds additional uncertainty as to whether the current short term installation rate will hold up because consumers may be inclined to buy additional bulbs to take advantage of the lower per-bulb pricing that is typically available through multi-packs. Additionally, CFLs in some cases may be replacing existing CFLs.

The Companies developed the budget and goals for the Retail Products program based on an estimate of sales necessary to reach the socket saturation metric of thirty six percent. However, because factors such as CFL installation rates can change over time as the CFL market evolves, it is unclear exactly how effective this program will be at increasing short-term socket saturation levels. The Companies could mitigate some of this uncertainty by selling additional bulbs. However, this would come at the detriment of other programs; the current Retail Products budget is an attempt to balance the socket saturation goal and insuring that other programs receive adequate funding.

The Energy Independence and Security Act of 2007 (EISA 2007) will phase out standard use incandescent bulbs beginning in 2012. As a result of this Act, the Companies, in response to the Department's Final Decision in Docket No. 09-02-18, have reduced the measure life of CFL bulbs to reflect the phase-out of standard use incandescent bulbs. This in turn lowers the lifetime savings within the Retail Product Program to account for the phase in of EISA 2007 compliant bulbs. However, as the lighting market continues to develop in response to EISA 2007, it is not anticipated that there will be a complete phase-out of incandescent bulbs. Several large

manufacturers already have full lines of EISA 2007 compliant Halogen products on the shelves of US retail stores. These bulbs are only approximately 25 percent more efficient than standard incandescent bulbs. Some industry experts claim that these EISA 2007 compliant incandescent bulbs may become the de-facto baseline for lighting in the future. Also EISA does not address several types of bulbs including three-way, candelabra base, rough service, and full spectrum bulbs. Therefore, it appears that there may be a need to continue to promote CFL technology well past the phase in of EISA 2007. Currently, the Companies will adhere to the CFL measure life prescribed by the Department, however in light of the current evidence, this may understate the potential lifetime savings for CFLs.

The Companies will continue to educate customers on the proper disposal of CFL bulbs. These strategies will include posting proper disposal information on Companies' websites and on point-of-purchase materials. In addition, the Companies have developed a CFL brochure which is available at lighting fairs, in-store promotions and used to educate customers through other programs such as the Home Energy Solutions Programs. In addition, this informational sheet will be included in the shipment of SmartLiving Catalog orders.

ENERGY STAR has finalized the specifications for solid state (i.e., LED) lighting. The Companies will consider their inclusion into the program based on availability and performance. It is anticipated that the ENERGY STAR label will initially be limited to a small number of indoor and outdoor fixtures. There are limited LED products on the horizon that are suitable replacements for the standard A-type incandescent bulb<sup>3</sup>. As of mid-September 2010, all of the ENERGY STAR qualified LED products are fixtures and there no ENERGY STAR qualifying LED bulbs. The Companies will remain active in evaluating LED

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<sup>3</sup> About 13 percent of the savings associated with LEDs would be achieved by 2020 and only 46 percent by 2025. Over half of the savings would occur between 2025 and 2030, as indicated by Seth Craigo-Snell in his report "The U.S. Replacement Lamp Market, 2010-2015, and the Impact of Federal Regulation on Energy Efficiency Lighting Programs (August 2010), 18.

lighting technology and provide incentives on qualified, quality products when they become available. Since promotion of LED technologies diverts resources from the Department goal of CFL socket saturation, the Companies respectfully request that the Department examine the CFL goal with LED technology in mind and make the appropriate adjustment to the saturation goal.

Consumer electronics load within the residential customer home continues to rise 5-10 percent annually. The market for efficient electronic products has responded quickly to increased federal and ENERGY STAR standards. It is estimated that the majority of televisions sold in Connecticut already meet ENERGY STAR 3.0 criteria, thus it appears that there may be limited savings potential within the television market. Despite this success, the Companies will continue to monitor and participate in the regional and national discussions around these technologies in coordination with CEE, NEEP and the EPA to piggy back on efforts that further address the efficiency of consumer electronics. While most electronics manufacturers have responded quickly to higher efficiency standards, set-top boxes that are oftentimes used in the cable industry have been lagging in terms of efficiency. The Companies will work with policy makers, including the DPUC, to see if higher standards for set-top boxes can be implemented in Connecticut.

In recent years, California has led the country in developing higher standards for various products. The Companies are going to take a proactive approach to developing higher local and national codes and standards requirements for other products including appliances, pool heaters, hot tubs, furnaces and water heaters. In order to do this, the Companies have assigned staff to work with local officials, regional and national organizations including Consortium for Energy Efficiency and Northeast Energy Efficiency Partnerships, to help identify energy savings potential and to work to capture this opportunity by developing higher standards. Based upon the results of this work and where practical, the Companies may develop a methodology to appropriately attribute energy savings from these efforts.

## CL&P Standard Filing Requirement

### Residential Retail Products (Lighting and Appliances)

All dollar values are in \$000

<u>Budget Projections</u>	<u>2008 Actuals</u>	<u>2009 Actuals</u>	<u>Revised 2010 Budget</u>	<u>2010 YTD (Aug)</u>	<u>2010 YE Projected</u>	<u>2011 Budget</u>	<u>2012 Budget</u>
Labor:							
NU Labor	\$ 89	\$ 91	\$ 164	\$ 71	\$ 119	\$ 176	\$ 176
Contractor Staff	\$ 2	\$ 0	\$ -	\$ 0	\$ -	\$ -	\$ -
Total Labor	\$ 91	\$ 91	\$ 164	\$ 71	\$ 119	\$ 176	\$ 176
Materials & Supplies	\$ 1	\$ 1	\$ -	\$ 1	\$ 1	\$ 2	\$ 1
Outside Services	\$ 817	\$ 770	\$ 1,556	\$ 646	\$ 1,093	\$ 1,053 a)	\$ 791
Incentives	\$ 3,737	\$ 2,220	\$ 9,052 d)	\$ 6,265	\$ 7,859	\$ 4,163 b)	\$ 3,165
Marketing	\$ 225	\$ 95	\$ 440	\$ 377	\$ 432	\$ 689 c)	\$ 646
Administrative Expenses	\$ 4	\$ 4	\$ 30	\$ 5	\$ 8	\$ 20	\$ 14
Other	\$ 27	\$ 41	\$ 45	\$ 9	\$ 14	\$ 30	\$ 22
Total	\$ 4,902	\$ 3,224	\$ 11,287	\$ 7,372	\$ 9,526	\$ 6,133	\$ 4,815

a) Outside Services - include field services support and fulfillment activities, sales training, placement and refresh of POP materials, verify delivery of products, in-store promotions, rebate processing and reporting activities.

b) Incentives - Markdowns, Instant Coupons, the SmartLiving Catalog, Lighting and Fairs, and Fundraising incentives.

c) Marketing - includes custom-designed Point of Purchase (POP) materials and rebate forms, brochures, bill insert, print ads, in-store collateral materials for product demonstrations, website, community events and trade shows.

d) Includes \$2,687 for ARRA Appliance Rebate Program for 2010 only.

#### 2011 Goals and Metrics Information

Demand Savings (kW reduction Goal)	8,690.9
Annual Energy Savings (kWh Reduction Goal)	115,564,659
Lifetime Energy Savings (kWh Reduction Goal)	444,923,006

Annual Cost Rate (\$/kWh)	\$ 0.053
Lifetime Cost Rate (\$/kWh)	\$ 0.014

Electric b/c Ratio	7.55
Total Resource b/c Ratio	5.85

## CL&P Standard Filing Requirement

### Residential Retail Lighting

All dollar values are in \$000

<u>Budget Projections</u>	<u>2008 Actuals</u>	<u>2009 Actuals</u>	<u>Revised 2010 Budget</u>	<u>2010 YTD (Aug)</u>	<u>2010 YE Projected</u>	<u>2011 Budget</u>	<u>2012 Budget</u>
Labor:							
NU Labor	\$ 89	\$ 91	\$ 164	\$ 66	\$ 115	\$ 176	\$ 176
Contractor Staff	\$ 2	\$ 0	\$ -	\$ 0	\$ -	\$ -	\$ -
Total Labor	\$ 91	\$ 91	\$ 164	\$ 67	\$ 115	\$ 176	\$ 176
Materials & Supplies	\$ 1	\$ 1	\$ -	\$ 1	\$ 1	\$ 2	\$ 1
Outside Services	\$ 771	\$ 770	\$ 1,556	\$ 626	\$ 1,074	\$ 1,053 a)	\$ 791
Incentives	\$ 3,728	\$ 2,220	\$ 6,365	\$ 2,849	\$ 4,443	\$ 4,163 b)	\$ 3,165
Marketing	\$ 206	\$ 95	\$ 440	\$ 345	\$ 400	\$ 689 c)	\$ 646
Administrative Expenses	\$ 4	\$ 4	\$ 30	\$ 5	\$ 8	\$ 20	\$ 14
Other	\$ 14	\$ 41	\$ 45	\$ 9	\$ 14	\$ 30	\$ 22
Total	\$ 4,815	\$ 3,224	\$ 8,600	\$ 3,901	\$ 6,055	\$ 6,133	\$ 4,815

- a) Outside Services - include field services support and fulfillment activities, sales training, placement and refresh of POP materials, verify delivery of products, in-store promotions, rebate processing and reporting activities.
- b) Incentives - Markdowns, instant coupons, the SmartLiving Catalog, lighting and fairs, and fundraising incentives.
- c) Marketing - includes custom-designed Point of Purchase (POP) materials and rebate forms, brochures, bill insert, print ads, in-store collateral materials for product demonstrations, website, community events and trade shows.

### 2011 Goals and Metrics Information

Demand Savings (kW reduction Goal)	8,690.9
Annual Energy Savings (kWh Reduction Goal)	115,564,659
Lifetime Energy Savings (kWh Reduction Goal)	444,923,006
Annual Cost Rate (\$/kWh)	\$ 0.053
Lifetime Cost Rate (\$/kWh)	\$ 0.014
Electric b/c Ratio	7.55
Total Resource b/c Ratio	5.85

## CL&P Standard Filing Requirement

### Retail Lighting

Year	Budget	Program Costs		Cost/participant	\$/LT-kWh
		Actual	% of Budget		
2000	\$ 2,463,000	\$ 4,016,000	163%	\$17	0.009
2001	\$ 2,831,000	\$ 4,828,000	171%	\$12	0.008
2002	\$ 2,700,000	\$ 3,484,000	129%	\$10	0.009
		\$ (335,000)			
	Net 2002	\$ 3,149,000			
2003	\$ 2,450,000	\$ 1,256,000	51%	\$12	0.016
2004	\$ 3,300,000	\$ 4,393,000	133%	\$2	0.007
2005 Revised	\$ 3,525,928	\$ 4,990,979	142%	\$3	0.013
2006 Revised	\$ 4,769,287	\$ 4,650,971	98%	\$2	0.011
2007 Revised	\$ 5,040,000	\$ 5,407,000	107%	\$2	0.011
2008 Revised	\$ 4,440,000	\$ 4,815,000	108%	\$2	0.009
2009 Revised	\$ 5,347,000	\$ 3,223,712	60%	\$2	0.013
2010 Revised	\$ 8,599,750	n/a	n/a	n/a	n/a
2010 YTD (Aug)	n/a	\$ 3,901,175	45%	\$2	0.002
2010 Y/E Projected	n/a	\$ 6,055,299	70%	\$3	0.003
2011	\$ 6,132,560	n/a	n/a	n/a	n/a

Year	Goal - Participation		
	Goal	Actual	% of Goal
2000	150,000	233,558	156%
2001	171,731	410,908	239%
2002	325,557	340,560	105%
2003	235,394	104,246	44%
2004	776,473	1,792,216	231%
2005 Revised	1,008,021	1,444,142	143%
2006 Revised	1,499,192	1,980,791	132%
2007 Revised	1,295,355	2,409,313	186%
2008 Revised	1,737,107	2,375,501	137%
2009 Revised	2,543,370	1,606,793	63%
2010 Revised	2,616,015	n/a	n/a
2010 YTD (Aug)	n/a	1,579,082	60%
2010 Y/E Projected	n/a	2,368,623	91%
2011	3,023,005	n/a	n/a

Goal - Lifetime MWh savings				Goal - Installed kW Savings			
Year	Budget	Actual	% of Budget	Year	Goal	Actual	% of Goal
2000	152,772	438,631	287%	2000	n/a	n/a	n/a
2001	244,030	610,545	250%	2001	n/a	n/a	n/a
2002	366,566	398,613	109%	2002	n/a	n/a	n/a
2003	201,631	78,468	39%	2003	1,391	607	43.6%
2004	354,614	591,781	167%	2004	2,970	5,144	173.2%
2005 Revised	293,530	376,443	128%	2005 Revised	3,382	4,279	126.5%
2006 Revised	367,504	427,603	116%	2006 Revised	3,957	4,703	118.8%
2007 Revised	359,509	483,854	135%	2007 Revised	3,665	5,584	152.4%
2008 Revised	400,146	540,122	135%	2008 Revised	4,561	6,243	136.9%
2009 Revised	436,889	240,352	55%	2009 Revised	6,479	4,024	62.1%
2010 Revised	348,967	n/a	n/a	2010 Revised	6,585	n/a	n/a
2010 YTD (Aug)	n/a	250,115	72%	2010 YTD (Aug)	n/a	3,906	59.3%
2010 Y/E Projected	n/a	335,161	96%	2010 Y/E Projected	n/a	5,511	83.7%
2011	444,923	n/a	n/a	2011	8,691	n/a	n/a

### Retail Lighting

Year	Program Ratios			
	\$/Lifetime kWh		\$/Annualized kW	
	Plan	Actual	Plan	Actual
2000	0.016	0.009	n/a	1,688
2001	0.012	0.008	n/a	1,279
2002	0.007	0.008	n/a	1,158
2003	0.011	0.016	1,663	2,069
2004	0.009	0.007	1,111	854
2005 Revised	0.012	0.013	1,043	1,166
2006 Revised	0.013	0.011	1,205	989
2007 Revised	0.014	0.011	1,375	968
2008 Revised	0.011	0.009	973	771
2009 Revised	0.012	0.013	825	801
2010 Revised	0.025	n/a	1,306	n/a
2010 YTD (Aug)	n/a	0.016	n/a	999
2010 Y/E Projected	n/a	0.018	n/a	1,099
2011	0.014	n/a	706	n/a

## **CL&P Program Notes**

### **Budget/FTE :**

**1.3** FTE's for program administration, vendor interaction, sales and field support.

### **Goal**

**3,023,005** Goal is lighting products including bulbs, fixtures and portables and reflects the continued focus on markdowns.  
2011 goal will continue build off of NCP promotions with an increased focus on specialty bulbs.

### **Cost/Unit**

**\$2.03** Overall cost per product.

**\$1.38** Average incentive cost per unit including products from the SmartLiving Catalog component of the coupons and markdowns.

### **Goal Setting Methodology**

Average weighted incentive cost was calculated based on desired product mix and delivery mechanism; goal was calculated based on available incentive dollars divided by average incentive cost.

### **Metric Changes**

Program design will continue to pursue NCPs with industry partners that are willing and able to implement markdown promotions and supply adequate Point of Sale data reports.  
Program will continue to move toward specialty (higher wattage, dimmables, three ways, etc.) products in 2011.

## CL&P Standard Filing Requirement

### Retail Appliances

All dollar values are in \$000

<u>Budget Projections</u>	<u>2008 Actuals</u>	<u>2009 Actuals</u>	<u>Revised 2010 Budget</u>	<u>2010 YTD (Aug)</u>	<u>2010 YE Projected</u>	<u>2011 Budget</u>	<u>2012 Budget</u>
Labor							
NU Labor	\$ -	\$ -	\$ -	\$ 4	\$ 4	\$ -	\$ -
Contractor Staff	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Labor	\$ -	\$ -	\$ -	\$ 4	\$ 4	\$ -	\$ -
Materials and Supplies	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Outside Services	\$ 46	\$ -	\$ -	\$ 19	\$ 19	\$ -	\$ -
Incentives	\$ 9	\$ -	\$ 2,687 a)	\$ 3,416	\$ 3,416 a)	\$ -	\$ -
Marketing	\$ 19	\$ -	\$ -	\$ 32	\$ 32	\$ -	\$ -
Administrative Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other	\$ 13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ 87	\$ -	\$ 2,687	\$ 3,471	\$ 3,471	\$ -	\$ -

a) Represents the ARRA Appliance Rebate Program in 2010

### 2011 Goals and Metrics Information

Demand Savings (kW reduction Goal)	N/A
Annual Energy Savings (KWh Reduction Goal)	N/A
Lifetime Energy Savings (kWh Reduction Goal)	N/A
Annual Cost Rate (\$/kWh)	N/A
Lifetime Cost Rate (\$/kWh)	N/A
Electric b/c Ratio	N/A
Total Resource b/c Ratio	N/A

## CL&P Standard Filing Requirement

### Retail Appliances

#### Program Costs

Year	Budget	Actual	% of Budget	Cost/Partic.	\$/LT-kWh
2000	\$ 1,416,000	\$ 1,259,000	89%	\$171	0.049
2001	\$ 863,000	\$ 732,000	85%	\$155	0.045
2002	\$ 1,260,000	\$ 1,674,000	133%	\$64	0.041
2003	\$ 1,600,000	\$ 860,000	54%	\$33	0.029
2004	\$ 900,000	\$ 1,451,000	161%	\$56	0.027
2005 Revised	\$ 1,154,867	\$ 1,449,291	125%	\$71	0.019
2006 Revised	\$ 769,663	\$ 975,790	127%	\$55	0.014
2007 Revised	\$ 559,800	\$ 555,000	99%	\$50	0.040
2008 Revised	\$ 560,000	\$ 88,448	16%	\$58	0.045
2009 Revised	n/a	n/a	n/a	n/a	n/a
2010 Revised	\$ 2,687,000	n/a	n/a	n/a	n/a
2010 YTD (Aug)	n/a	\$ 3,471,129	129%	n/a	n/a
2010 Y/E Projected	n/a	\$ 3,471,000	129%	n/a	n/a
2011	n/a	n/a	n/a	n/a	n/a

#### Goal - Participation

Year	Goal (Units)	Actual	% of Goal
2000	8,320	7,383	89%
2001	5,451	4,714	86%
2002	16,444	26,000	158%
2003	22,160	13,813	62%
2004	11,900	26,134	220%
2005	11,435	20,514	179%
2006 Revised	14,047	17,597	125%
2007 Revised	16,500	11,003	67%
2008 Revised	0	1,536	n/a
2009 Revised	n/a	n/a	n/a
2010 Revised	n/a	n/a	n/a
2010 YTD (Aug)	n/a	n/a	n/a
2010 Y/E Projected	n/a	n/a	n/a
2011	n/a	n/a	n/a

#### Goal - Lifetime MWh Savings

Year	Goal (MWh)	Actual (MWh)	% of Goal
2000	23,016	25,736	112%
2001	21,322	16,244	76%
2002	32,945	41,111	125%
2003	51,655	29,791	58%
2004	23,799	54,186	228%
2005 Revised	52,447	77,371	148%
2006 Revised	54,081	67,748	125%
2007 Revised	5,785	14,018	n/a
2008 Revised	0	1,957	n/a
2009 Revised	n/a	n/a	n/a
2010 Revised	n/a	n/a	n/a
2010 YTD (Aug)	n/a	n/a	n/a
2010 Y/E Projected	n/a	n/a	n/a
2011	n/a	n/a	n/a

#### Goal - Installed kW Savings

Year	Goal	Actual	% of Goal
2000	n/a	n/a	n/a
2001	n/a	n/a	n/a
2002	n/a	n/a	n/a
2003	4,772	815	17.1%
2004	586	1,195	203.9%
2005 Revised	497	553	111.3%
2006 Revised	365	457	125.3%
2007 Revised	1,182	95	n/a
2008 Revised	0	13	n/a
2009 Revised	n/a	n/a	n/a
2010 Revised	n/a	n/a	n/a
2010 YTD (Aug)	n/a	n/a	n/a
2010 Y/E Projected	n/a	n/a	n/a
2011	n/a	n/a	n/a

### Retail Appliances

#### Program Ratios

Year	\$/Lifetime kWh		\$/Annualized kW	
	Plan	Actual	Plan	Actual
2000	0.074	0.049	n/a	10,458
2001	0.053	0.045	n/a	9,643
2002	0.038	0.041	n/a	1,568
2003	0.038	0.029	594	1,055
2004	0.038	0.027	1,535	1,214
2005 Revised	0.022	0.019	2,324	2,621
2006 Revised	0.014	0.014	2,111	2,136
2007 Revised	0.097	0.040	474	5,873
2008 Revised	-	0.045	-	6,701
2009 Revised	n/a	n/a	n/a	n/a
2010 Revised	n/a	n/a	n/a	n/a
2010 YTD (Aug)	n/a	n/a	n/a	n/a
2010 Y/E Projected	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a

CL&P Standard Filing Requirement

**CL&P Program Notes**

Budget/FTE  
0.0

Goal  
n/a

Cost/Unit  
n/a

Goal Setting Methodology  
n/a

Metric Changes  
None

**The United Illuminating Company**  
**EL-25 Standard Filing Requirement**  
**2011**

**Retail Products**

UI residential customers, appliance and lighting retailers

<b><u>Budget Projections</u></b>	<b><u>2009 Act</u></b>	<b><u>2010 Revised Bud</u></b>	<b><u>2010 YTD (Aug)</u></b>	<b><u>2010 YE Projected</u></b>	<b><u>2011 Bud</u></b>	<b><u>2012 Bud</u></b>
Labor						
UI Labor	\$ 187,116	\$ 173,942	\$ 113,058	\$ 173,942	\$ 176,283 a)	\$ 185,097
Contractor Staff	\$ -	\$ 147,000	\$ -	\$ -	\$ - b)	
Total Labor	\$ 187,116	\$ 320,942	\$ 113,058	\$ 173,942	\$ 176,283	\$ 185,097
Materials & Supplies	\$ 2,807	\$ 15,130	\$ 3,020	\$ 15,130	\$ 7,500 c)	\$ 7,500
Outside Services	\$ 114,219	\$ 50,000	\$ 191,326	\$ 286,989	\$ 190,000 d)	\$ 151,671
Incentives	\$ 928,149	\$ 1,467,930	\$ 1,909,179	\$ 1,909,179	\$ 924,779 e)	\$ 797,726
Marketing	\$ 102,976	\$ 429,677	\$ 195,824	\$ 294,000	\$ 260,000 f)	\$ 135,087
Other	\$ 5,803	\$ 4,720	\$ 5,549	\$ 5,549	\$ 5,803 g)	\$ 5,803
Administrative Expenses	\$ 2,796	\$ 15,100	\$ 840	\$ 1,260	\$ 4,647 h)	\$ 10,000
Total	\$ 1,343,866	\$ 2,303,499	\$ 2,418,796	\$ 2,686,049	\$ 1,569,012	\$ 1,292,884

- a) 1.85 FTEs
- b) No comment
- c) Printing of Program forms and supplies for lighting fairs/events
- d) Incentive fulfillment services, field services for lighting fairs/events, NCP administrative services. Code and Standards monitoring
- e) 717,705 CFLs, 77/23% Standard to Speciality;
- f) In-store POP, creation of coupons, forms, marketing materials, seasonal advertising and Public Relations
- g) NEEP participation
- h) Meals, miles, travel and training

**Goals and Metrics Information:**  
**Savings**

	<b><u>2011</u></b>
Demand Savings (kW)	2,368
Annual Energy Savings (kWh)	26,884,627
Lifetime Energy Savings (kWh)	119,885,500
Annual Cost Rate (\$/kWh)	\$ 0.058
Lifetime Cost Rate (\$/kWh)	\$ 0.013
Cost per kW	\$ 663
Electric System B/C Ratio	8.21
Total Resource B/C Ratio	6.92

## The United Illuminating Company LF-26 Standard Filing Requirement

### Retail Products

#### Goal - Program Costs (000's)

Year	Budget	Actual	% of Goal Achieved
2000	\$1,546	\$1,831	118.4%
2001	\$1,665	\$1,589	95.4%
2002	\$1,379	\$1,303	94.5%
2003	\$1,070	\$592	55.3%
2004	\$1,361	\$1,267	93.1%
2005	\$1,506	\$1,592	105.7%
2006	\$1,521	\$1,664	109.4%
2007	\$1,238	\$1,247	100.7%
2008	\$1,208	\$1,282	106.1%
2009	\$1,863	\$1,344	72.1%
2010	\$2,303		
2010 YTD (Aug)	\$2,303	\$2,419	105.0%
2010 YE Projected	\$2,303	\$2,686	116.6%
2011	\$1,569		

#### Goal - Number of Bulbs, Fixtures & Appliances

Year	Goal	Actual	% of Goal Achieved
2000	20,799	29,020	139.5%
2001	62,823	102,148	162.6%
2002	61,459	95,456	155.3%
2003	44,073	40,736	92.4%
2004	233,800	242,338	103.7%
2005	259,685	337,713	130.0%
2006	455,658	442,703	97.2%
2007	335,000	721,000	215.2%
2008	465,806	658,600	141.4%
2009	856,772	602,866	70.4%
2010	531,976		
2010 YTD (Aug)	531,976	464,337	87.3%
2010 YE Projected	531,976	696,506	130.9%
2011	717,705		

#### Goal - Installed kWh Savings (000's kWh)

Year	Goal	Actual	% of Goal Achieved
2000	4,487	7,078	157.7%
2001	7,124	9,563	134.2%
2002	4,523	7,997	176.8%
2003	3,747	3,465	92.5%
2004	11,564	12,166	105.2%
2005	11,314	14,968	132.3%
2006	14,695	15,216	103.5%
2007	9,658	21,152	219.0%
2008	12,893	17,390	134.9%
2009	21,208	12,485	58.9%
2010	20,067		
2010 YTD (Aug)	20,067	17,378	86.6%
2010 YE Projected	20,067	26,067	129.9%
2011	26,885		

#### Goal - Installed kW Savings

Year	Goal	Actual	% of Goal Achieved
2000	-	-	0.0%
2001	-	-	0.0%
2002	-	-	0.0%
2003	404	639	158.2%
2004	1,143	1,286	112.5%
2005	995	1,339	134.6%
2006	1,177	1,158	98.4%
2007	761	1,615	212.2%
2008	1,224	1,613	131.8%
2009	2,009	1,186	59.0%
2010	1,772		
2010 YTD (Aug)	1,772	1,535	86.6%
2010 YE Projected	1,772	2,303	130.0%
2011	2,368		

#### Goal - Lifetime kWh Savings (000's kWh)

Year	Goal	Actual	% of Goal Achieved
2000	76,065	116,542	153.2%
2001	91,689	114,927	125.3%
2002	48,850	87,336	178.8%
2003	47,247	34,208	72.4%
2004	108,108	115,967	107.3%
2005	80,398	111,485	138.7%
2006	113,098	126,122	111.5%
2007	69,512	180,938	260.3%
2008	91,460	135,890	148.6%
2009	127,649	84,297	66.0%
2010	116,297		
2010 YTD (Aug)	116,297	82,714	71.1%
2010 YE Projected	116,297	156,402	134.5%
2011	119,886		

### Program Ratios

Year	\$/kWh Target	Actual	\$/LT kWh Target	Actual	\$/kW Target	Actual	Cost/Socket
2000	\$0.345	\$0.259	\$0.020	\$0.016	\$0	\$0	\$63.094
2001	\$0.234	\$0.166	\$0.018	\$0.014	\$0	\$0	\$15.556
2002	\$0.305	\$0.163	\$0.028	\$0.015	\$0	\$0	\$13.650
2003	\$0.286	\$0.171	\$0.023	\$0.017	\$2,649	\$926	\$14.533
2004	\$0.118	\$0.104	\$0.013	\$0.011	\$1,191	\$985	\$5.228
2005	\$0.133	\$0.106	\$0.019	\$0.014	\$1,514	\$1,189	\$6.131
2006	\$0.104	\$0.109	\$0.013	\$0.013	\$1,292	\$1,437	\$3.652
2007	\$0.128	\$0.059	\$0.018	\$0.007	\$1,627	\$772	\$1.730
2008	\$0.094	\$0.074	\$0.013	\$0.009	\$987	\$795	\$1.947
2009	\$0.088	\$0.108	\$0.015	\$0.016	\$927	\$1,133	\$2.229
2010	\$0.115		\$0.020		\$1,300		
2010 YTD (Aug)	\$0.115	\$0.139	\$0.020	\$0.029	\$1,300	\$1,576	\$5.209
2010 YE Projected	\$0.115	\$0.103	\$0.020	\$0.017	\$1,300	\$1,166	\$3.856
2011	\$0.058		\$0.013		\$663		

# The United Illuminating Company

## LF-26 Standard Filing Requirement

### Program Notes - Residential Retail Lighting

Budget/FTE:

2011 UI Labor 1.85 FTE includes field support, data/financial administration and event participation

Goal:

	Units	Incentive
<b>Specialty CFLs @ 15w avg</b>	162,854	\$ 2.14
<b>Standard CFLs @15w avg</b>	554,851	\$ 1.02

Cost/kWh (Cost/Unit):

2011 cost rates decrease slightly due to overall production increase  
Product mix increase in standard vs speciality sales  
Numerous multi-packs sold

Goal Setting Methodology:

Goals are based on a measure mix and production levels based on available funds, market data, and average lighting wattages.

Metric Changes:

Socket saturation of 36% as directed by DPUC

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## Residential New Construction (Electric and Natural Gas)

**Objective:** The objective of the electric and natural gas Residential New Construction (“RNC”) program is to reduce the energy use and peak demand in new housing. Related objectives include increasing builder and consumer awareness and understanding the benefits of energy-efficient building practices, and to effect permanent market movement to more energy-efficient residential construction in the state of Connecticut.

**Target Market:** The Companies will target residential new construction projects, particularly those that are willing to demonstrate the next generation of energy efficiency. The Companies also plan to continue to support energy improvements in all residential new construction projects including builders who may not be actively participating in the program through their efforts to improve statewide building energy code compliance in Connecticut.

Outreach and education elements related to energy efficiency in residential new construction will focus on prospective new homebuyers, builders, developers, and other market participants such as architects, building code officials, home energy raters, insulation contractors, real estate agents, HVAC contractors and geothermal installers. Relationships will continue to be fostered with the appropriate agents of single and multi-family housing for limited-income families, including Public Housing Authorities, the Connecticut Housing Finance Authority, and other not-for-profit community development entities.

**Program Description:** The Companies will continue to offer two energy efficiency tracks as summarized below:

- 1.) The ENERGY STAR qualification, developed in 1992 by the Environmental Protection Agency, was designed to encourage energy efficiency and reduce greenhouse gas emissions. To assure compliance with qualification criteria, all homes must be inspected and verified by a RESNET certified Home Energy Rating System (HERS) rater under contract to the homeowner or builder. Such raters assist

throughout the entire building process to assure ENERGY STAR standards are met. For 2011, the Companies will continue to pay tiered incentives for homes that comply with these standards. In addition, the revised ENERGY STAR program, deemed version 3.0, will be adopted by the new construction program on the timeline proposed by the EPA (i.e., version 2.5 in 2011, with full Version 3.0 starting in 2012).

- 2.) Residential New Construction incentives will also be provided related to thermal enclosure system, geothermal heating and cooling, high-efficiency HVAC, and high-efficiency gas hot water heaters. These incentives can be bundled with ENERGY STAR qualification, but do not require the services of a HERS rater.

The RNC application, available to customers, must be submitted prior to the start of any construction. During construction and upon completion, the home is inspected for verification of installed measures.

In an effort to reduce costs and promote market competition, the program will continue allowing independent certified HERS raters to submit qualifying projects for incentives. In 2010, this process has reduced program costs and increased the cost-effectiveness of the program because the builders and homeowners interested in obtaining a rating have had to contribute to the cost of the HERS rating. Home energy ratings are useful vehicles for builders to market their homes, but the ratings themselves do not generate energy savings. Because it is in the builder's best interest to have the rating performed, it is appropriate for the builder to be responsible for the rating's cost. Although the Electric and Natural Gas Companies do not subsidize the full cost of HERS ratings, tiered incentives are provided for homes that meet various levels of the ENERGY STAR HERS Index, rewarding those that achieve the greatest energy efficiency.

The Electric and Natural Gas Companies will continue to redefine the focus of the RNC program in order to further reduce

costs and improve its effectiveness. Program efforts will focus on working with market leaders to demonstrate methods and benefits of building homes that minimize peak load growth for both the electric and natural gas systems. This will involve moving builders and consumers beyond ENERGY STAR standards to the development of high-performing and near-zero energy homes through the incorporation of renewable energy features including solar-thermal hot water systems. Other technologies such as ductless and geothermal heat pumps, combined heat and power systems, Solid-State lighting fixtures and lamps, time-of-day rate structures, and real-time feedback mechanisms may also be demonstrated or featured. If available, federal and state tax credits will be leveraged with the RNC program offering, along with Connecticut Clean Energy Fund ("CCEF") Solar PV, solar thermal rebate and geothermal rebate programs.

Incentive Strategy: The Electric and Natural Gas Companies will once again offer tiered incentives for homes that meet high-performance criteria based upon a HERS Index rating. The 2011 incentive and qualifying measures are listed in the table on the following page:

### RNC Energy-Saving Packages, Standards and Incentives

Name	Tier	HERS Index Rating	Residential New Construction Incentives			
			Single Family		Multi-Family Unit	
			Applicants	Rating Incentive (Note 6)	Applicants	Rating Incentive (Note 6)
ENERGY STAR HERS Index Incentive (Note 1)	Tier 1	85-75	\$0	\$100	\$0	\$100 (cap = \$500)
	Tier 2	74-65	\$500	\$200	\$250	\$125 (cap = \$6,250)
	Tier 3	64-55	\$1,500	\$300	\$750	\$150 (cap= \$7,500)
	Tier 4	<55	\$2,000 + \$50/point below 55	\$400	\$1,000 + \$25/point below 55	\$175 (cap=\$8,750)
<b>Thermal Enclosure System (Note 1)</b>	Thermal Enclosure System (Note 2)	\$0.50/square foot for above grade floor area for homes with gas or electric heat.				
<b>HVAC</b>	ENERGY STAR (14.5 SEER 12 EER)	\$250 per system including ductless units \$750 per system for commissioned HVAC systems				
<b>Water (Note 1)</b>	Energy Efficient Hot Water	\$300 for ENERGY STAR natural gas instantaneous hot water with 0.82 efficiency and electronic ignition; \$300 for ENERGY STAR gas boiler with indirect hot water. \$400 for ENERGY STAR heat pump water heater or solar thermal in an all-electric home (\$600 for both).				
<b>Geothermal (Note 3)</b>	VIP Geothermal	\$500 per ton capped at \$1,500 per location for VIP systems that meet 2012 ENERGY STAR specifications.				
<b>Lights</b>	ENERGY STAR Lighting	Required in 80% of qualifying sockets in homes that receive an ENERGY STAR (HERS Index) rating incentive.				
<b>Appliances (Note 4)</b>	ENERGY STAR Appliances	Required for clothes washer, dishwasher and refrigerator in any home that receives an ENERGY STAR (HERS Index) incentive.				
<b>Zero Energy Challenge</b>	Homes That Approach Zero Energy	Same RNC incentives as above. HERS ratings partially subsidized by the Electric and Natural Gas Companies/CCEF for ZEC participants.				

**Notes:**

- The ENERGY STAR incentive and the Thermal Enclosure System incentive amounts are for homes with natural gas heat or homes with electric heat. For homes with oil heat, propane heat (or other heat), the builder incentives are 30 percent of the incentive amounts listed above. The incentives are based on the ENERGY STAR 2.0 HERS index, however, homes must meet the ENERGY STAR 3.0 criteria. For homes with natural gas heat, 100 percent of the incentive for ENERGY STAR (including the rater incentive) and insulation is allocated to the appropriate natural gas budget. Likewise, the water heating incentive is allocated to the appropriate natural gas or electric company. All other incentives including the 30 percent reduced Incentives for ENERGY STAR and insulation for fuel oil and propane heated homes will be allocated to the appropriate electric company. In situations where dual fuel heating or water heating systems are installed (e.g. geothermal system with natural gas back-up), the incentive allocation is based on the estimated benefit associated with each fuel type.
- Homes must have a mechanical ventilation system installed to qualify for the ENERGY STAR or Thermal Bypass incentive.
- The home must meet ENERGY STAR 2.5 Thermal Enclosure System requirements (air barrier and air sealing section requirements) and have a mechanical ventilation system to qualify for this incentive. All insulation must meet Grade I standards as defined by RESNET-NO insulation batt products can qualify. In addition, walls must have at least R-21 insulation and ceilings must have at least R-40. Thermal bypass rebates are based on above grade conditioned floor area and are capped at the following levels.  
  - One bedroom home: \$960
  - Two bedroom homes: \$1,330
  - Three bedroom homes: \$1,695
  - Four bedroom homes: \$2,210
  - Five+ bedroom homes: \$2,395
- Homes must successfully meet the geothermal VIP requirements by having units operate at least 85 percent of their rated efficiency and capacity. Applicants must participate in the CT Clean Energy fund geothermal program. Geothermal systems must be 2012 ENERGY STAR qualified. Open loops are not eligible.
- The Electric Companies consider ENERGY STAR appliances to be the baseline and will not take credit for appliance savings in the RNC program.
- RNC program projects where residents on limited income will receive 150 percent of the incentives described above. Limited income is defined as individuals which are at 60 percent or below of the state's median income level.
- The Electric and Natural Gas Companies reserve the right to add additional rater incentives based on changing market conditions.
- RNC rebates and incentives noted above do not include any forthcoming ARRA limited-time rebates for appliances and HVAC equipment or CCEF funding for renewable energy.

Marketing Strategy: The 2011 Residential New Construction program will continue to be promoted to prospective new homebuyers, builders, developers, and other market participants such as architects, building code officials, home energy raters, insulation contractors, real estate agents, HVAC contractors, and geothermal installers. Ultimately, it will be the market leaders (builders and industry associations) that will drive participation in the RNC program. The marketing strategy will be based on getting them timely, relevant information. The messaging will include information on current technology/building trends and benefits and program details. Communication tactics may include:

- program seminars targeting builders using industry association lists as a base for participants;
- selected advertising in local and regional trade publications;
- submission of articles to local and regional trade publications and consumer publications (in print and on-line, which may be written in collaboration with builders);
- development and distribution of case studies that can be posted on the Electric and Natural Gas Companies' web sites and linked to [CTEnergyInfo.com](http://CTEnergyInfo.com);
- participation in consumer events such as home shows;
- participation in association events, including sponsorships, when appropriate;
- outreach to legislative audiences through their newsletters, forums, one-on-one meetings and public events;
- promotion of the RNC program through the media, and
- any public relation marketing opportunities that the CT ZEC generates.

New Program Issues: It is important to note that the residential building code represents the minimum standard that a home must be built to. While increasing code compliance is a critical component of this

program, ENERGY STAR requirements represent a higher level of sustainability and long-term cost-effectiveness for customers and ratepayers. During 2011, the current ENERGY STAR 2.0 framework will begin to shift to ENERGY STAR 3.0. The phase-in will include a transitional period (ENERGY STAR 2.5) that will take place in 2011. All homes that are permitted in 2010 can still comply with version 2.0 through June 30, 2011 (condos and multi-family have until the end of 2011). All homes permitted in and completed in 2011 need to comply with version 2.5. Beginning January 1, 2012, the ENERGY STAR 3.0 phase-in will be complete and the new 3.0 standards will be fully enforced. This revised program represents more stringent guidelines for energy efficiency of new homes through control of air, thermal, and moisture flow helping to make them more comfortable, durable, affordable, and healthy. Detailed checklists, including those for Thermal Enclosure System Raters, HVAC System Quality Installation Contractors, HVAC System Quality Installation Raters, and Water Management System Builders will assure that program standards are being met.

With the deep housing market slump, it is imperative for builders and others involved in the home building industry to differentiate their products from the multitude that do not incorporate the latest energy-saving technologies.<sup>4</sup> Homes built to increased energy-efficiency standards are proving to be more attractive to prospective homebuyers, since they not only help the environment but can provide their owners the benefit of substantially reduced energy bills. Participation in the new ENERGY STAR program can thus encourage new home sales as well as helping promote energy efficiency.

While these revised standards are beneficial to the mission of greater energy efficiency and sustainability, they are stringent and challenging and may cause some builders to drop out of the ENERGY STAR program. The Companies anticipated this and presented a series of training seminars in late summer 2010,

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<sup>4</sup> According to Sam Rashkin, Director of the ENERGY STAR for Homes Program, the construction of energy efficient homes is “the new normal.”

with additional training programs being developed for 2011 aimed at making compliance to the new standards easier.

In addition to preparing the building industry, these trainings will help the industry prepare for the adoption of IECC 2009 which will take place in 2012. IECC 2009 requires, among other things, tightness testing for ducts and 50 percent efficient lighting. To help transition to IECC 2009, the Companies will work with the builders and electricians to help them adapt to the new lighting requirement. The new duct testing requirement is a momentous step for the building code and it is anticipated building officials will need to rely on HERS raters in order to effectively enforce this aspect of the code.

The Companies will enhance efforts around codes in Connecticut by increasing training for code officials, as well as advocating for higher codes. Based upon these efforts, the Companies may work with the DPUC to ascribe savings to these code-related efforts.

Two key factors that have become increasingly important to today's homebuilders and homeowners are reducing their environmental impact and saving on the rising costs of energy. In pursuit of these goals, the 2009-2010 CT Zero Energy Challenge (CT ZEC) was developed. The CT ZEC has been very successful with 18 participants reflecting a broad spectrum of designs, sizes and efficiency measures. Winners of the 2009-10 CT ZEC will be announced in December, 2010. The CT ZEC will be repeated with new contestants in a 2010-2011 Challenge. The current website, [ctzeroenergychallenge.com](http://ctzeroenergychallenge.com) has been updated with a new interface for the 2010-2011 Challenge. The 2009-2010 CT ZEC provided a successful public relations forum to showcase super high efficiency homes being built today. From the announcement of the Challenge in 2009 to date (fall of 2010), media coverage has been frequent. Stories have appeared in many newspapers, including the Hartford Courant, The New Haven Register and The Day, and in several blogs. Additionally, many of the contestants have hosted open houses and media events at their building sites

throughout construction. The same media strategy will be pursued in the new 2010-2011 Challenge.

The Companies will offer solar thermal hot water incentives and heat pump water heater incentives for all electric homes. Many geothermal (all electric homes) use electric resistance as the primary mechanism to heat hot water. By including these hot water incentives for all electric homes, customers will have efficient non-combustion hot water options for all electric homes.

## CL&P Standard Filing Requirement

### Residential New Construction

All dollar values are in \$000

<u>Budget Projections</u>	<u>2008 Actuals</u>	<u>2009 Actuals</u>	<u>Revised 2010 Budget</u>	<u>2010 YTD (Aug)</u>	<u>2010 YE Projected</u>	<u>2011 Budget</u>	<u>2012 Budget</u>
Labor:							
NU Labor	\$ 105	\$ 94	\$ 246	\$ 67	\$ 102	\$ 200	\$ 200
Contractor Staff	\$ 1	\$ -	\$ -	\$ 7	\$ 11	\$ -	\$ -
Total labor	\$ 106	\$ 94	\$ 246	\$ 74	\$ 113	\$ 200	\$ 200
Materials & Supplies	\$ 1	\$ 0	\$ 3	\$ 3	\$ 5	\$ 3	\$ 2
Outside Services	\$ 141	\$ (4)	\$ 270	\$ 0	\$ 100	\$ 150	\$ 110
Incentives	\$ 1,304	\$ 363	\$ 1,899	\$ 435	\$ 1,554	\$ 1,059 a)	\$ 766
Marketing	\$ 9	\$ 24	\$ 69	\$ 19	\$ 30	\$ 40 b)	\$ 31
Administrative Expenses	\$ 3	\$ 7	\$ 13	\$ 4	\$ 8	\$ 8	\$ 6
Other	\$ -	\$ 10	\$ -	\$ 3	\$ 4	\$ -	\$ -
Total	\$ 1,564	\$ 494	\$ 2,500	\$ 538	\$ 1,814	\$ 1,460	\$ 1,115

a) Incentives Includes payments to builders and raters as well as incentives for home certification, insulation, geothermal commissioning, HVAC (including water), and lighting.

b) Marketing includes development and printing of an RNC brochure, sponsorship of various events and conferences including home shows, the Zero Energy Challenge (website and awards), promotional signs including lawn signs for RNC and Zero Energy participants, and additional incentives as necessary.

#### 2011 Goals and Metrics Information

Demand Savings (kW reduction Goal)	523.1
Annual Energy Savings (KWh Reduction Goal)	2,175,438
Lifetime Energy Savings (kWh Reduction Goal)	27,582,507
Annual Cost Rate (\$/kWh)	\$ 0.671
Lifetime Cost Rate (\$/kWh)	\$ 0.053
Electric b/c Ratio	1.83
Total Resource b/c Ratio	1.56

## CL&P Standard Filing Requirement

### Residential New Construction

Year	Budget	Program Costs		Cost/participant	\$/LT-kWh
		Actual	% of Budget		
2000	\$ 1,744,000	\$ 1,508,000	86%	\$1,797	0.068
2001	\$ 1,315,000	\$ 1,283,000	98%	\$3,534	0.081
2002	\$ 1,400,000	\$ 1,275,000	91%	\$2,087	0.027
2003	\$ 1,655,000	\$ 1,115,726	67%	\$1,622	0.051
2004	\$ 900,000	\$ 767,514	85%	\$1,089	0.084
2005 Revised	\$ 1,320,429	\$ 1,187,496	90%	\$1,197	0.035
2006 Budget	\$ 1,769,000	\$ 1,688,185	95%	\$1,310	0.039
2007 Revised	\$ 1,700,000	\$ 1,414,189	83%	\$2,050	0.073
2008 Revised	\$ 1,650,000	\$ 1,563,639	95%	\$2,451	0.079
2009 Revised	\$ 1,350,000	\$ 494,394	37%	\$921	0.039
2010 Revised	\$ 2,499,625	n/a	n/a	n/a	n/a
2010 YTD (Aug)	n/a	\$ 538,158	22%	\$2,102	0.043
2010 Y/E Projected	n/a	\$ 1,814,000	73%	\$4,724	0.056
2011	\$ 1,460,165	n/a	n/a	n/a	n/a

#### Goal - No. of New Homes Built to Standard

Year	Goal	Actual	% of Goal
2000	686	839	122%
2001	734	363	49%
2002	605	611	101%
2003	1,005	688	68.5%
2004	600	705	117.5%
2005 Revised	932	992	106.4%
2006 Revised	1,421	1289	90.7%
2007 Revised	1,546	690	44.6%
2008 Revised	1,255	638	50.8%
2009 Revised	752	537	71.4%
2010 Revised	964	n/a	n/a
2010 YTD (Aug)	n/a	256	26.6%
2010 Y/E Projected	n/a	384	39.8%
2011	609	n/a	n/a

#### Goal - Lifetime MWh savings

Year	Budget	Actual	% of Budget
2000	54,082	22,226	41%
2001	24,924	11,091	44%
2002	27,799	33,911	122%
2003	12,969	21,782	82%
2004	10,891	9,114	83.7%
2005 Revised	17,985	34,399	191.3%
2006 Revised	16,468	43,764	265.8%
2007 Revised	19,791	19,431	98.2%
2008 Revised	27,494	19,910	72.4%
2009 Revised	24,648	12,656	51.3%
2010 Revised	37,543	n/a	n/a
2010 YTD (Aug)	n/a	12,394	33.0%
2010 Y/E Projected	n/a	32,399	86.3%
2011	27,583	n/a	n/a

#### Goal - Installed kW Savings

Year	Goal	Actual	% of Goal
2000	n/a	n/a	n/a
2001	n/a	n/a	n/a
2002	n/a	n/a	n/a
2003	229	476	207.9%
2004	343	268	78.1%
2005	687	1,885	274.4%
2006 Budget	682	2,225	326.3%
2007 Revised	544	505	92.8%
2008 Revised	1,158	521	45.0%
2009 Revised	596	256	42.9%
2010 Revised	482	n/a	n/a
2010 YTD (Aug)	n/a	157	32.6%
2010 Y/E Projected	n/a	414	85.9%
2011	523	n/a	n/a

#### Program Ratios

Year	\$/Lifetime kWh		\$/Annualized kW	
	Plan	Actual	Plan	Actual
2000	0.032	0.068	n/a	5470
2001	0.031	0.081	n/a	5359
2002	0.030	0.027	n/a	2012
2003	0.093	0.051	4,814	2,345
2004	0.083	0.084	2,627	2,862
2005 Revised	0.073	0.035	1,922	630
2006 Revised	0.107	0.039	2,594	759
2007 Revised	0.086	0.073	3,125	2,800
2008 Revised	0.060	0.079	1,425	2,999
2009 Revised	0.055	0.039	2,264	n/a
2010 Revised	0.067	n/a	5,187	n/a
2010 YTD (Aug)	n/a	0.043	n/a	3,421
2010 Y/E Projected	n/a	0.056	n/a	4,380
2011	0.053	n/a	2,792	n/a

## CL&P Standard Filing Requirement

### Residential New Construction

#### CL&P Program Notes

**Budget/FTE**

1.5 FTE for program administration, vendor interaction, sales and field support

**Goal**

609 Homes completed

**Cost/Unit**

\$2,399 Average cost per home.

**Goal Setting Methodology**

Reflects shift towards "market based" program, i.e., builders pick up the cost of home ratings.  
Average cost per home is much lower than comparable programs in surrounding states.

**Metric Changes**

Program focus will move towards high performing "zero energy" homes.

**The United Illuminating Company**  
**EL-25 Standard Filing Requirement**  
**2011**

Residential New Construction

**Baseline Assumptions:**

<b>Budget Projections</b>	Residential new construction					
	<u>2009 Act</u>	<u>2010 Revised Bud</u>	<u>2010 YTD (Aug)</u>	<u>2010 YE Projected</u>	<u>2011 Bud</u>	<u>2012 Bud</u>
Market						
Labor						
UI Labor	\$ 100,941	\$ 78,756	\$ 32,423	\$ 78,756	\$ 72,166 a)	\$ 75,774
Contractor Staff	\$ -	\$ -	\$ -	\$ -	\$ - b)	\$ -
Total Labor	\$ 100,941	\$ 78,756	\$ 32,423	\$ 78,756	\$ 72,166	\$ 75,774
Materials & Supplies	\$ 1,737	\$ 4,000	\$ 304	\$ 4,000	\$ 2,500 c)	\$ 2,500
Outside Services	\$ 15,855	\$ 15,000	\$ 5,958	\$ 15,000	\$ 10,000 d)	\$ 10,000
Incentives	\$ 44,731	\$ 223,832	\$ 59,391	\$ 89,087	\$ 100,757 e)	\$ 48,199
Marketing	\$ 25,025	\$ 30,000	\$ 9,089	\$ 25,000	\$ 25,000 f)	\$ 10,000
Other	\$ 1,605	\$ -	\$ 1,461	\$ 1,461	\$ - g)	\$ -
Administrative Expenses	\$ 8,055	\$ 4,560	\$ 2,931	\$ 4,560	\$ 5,017 h)	\$ 4,500
<b>Total</b>	<b>\$ 197,949</b>	<b>\$ 356,148</b>	<b>\$ 111,557</b>	<b>\$ 217,864</b>	<b>\$ 215,440</b>	<b>\$ 150,973</b>

- a) 1.08 FTEs
- b) No comment
- c) Printing of program forms and supplies
- d) Technical assistance for 86 homes
- e) Efficiency measure upgrades for 86 homes
- f) General awareness program marketing, Zero Energy Homes Challenge, builder co-op advertising
- g) No comment
- h) Meals, miles, travel and training

**Goals and Metrics Information:**

	<u>2011</u>
<b>Savings</b>	
Demand Savings (kW)	89
Annual Energy Savings (kWh)	313,339
Lifetime Energy Savings (kWh)	3,992,581
Annual Cost Rate (\$/kWh)	\$ 0.688
Lifetime Cost Rate (\$/kWh)	\$ 0.054
Cost per kW	\$ 2,423
Electric System B/C Ratio	1.81
Total Resource B/C Ratio	1.62

## The United Illuminating Company LF-26 Standard Filing Requirement

### Residential New Construction

#### Goal - Program Costs (000's)

Year	Budget	Actual	% of Goal Achieved
2000	\$359	\$513	142.9%
2001	\$536	\$497	92.7%
2002	\$424	\$520	122.6%
2003	\$523	\$357	68.3%
2004	\$541	\$606	112.0%
2005	\$841	\$1,140	135.6%
2006	\$644	\$375	58.2%
2007	\$396	\$153	38.6%
2008	\$396	\$440	111.1%
2009	\$442	\$198	44.8%
2010	\$356		
2010 YTD (Aug)	\$356	\$112	31.3%
2010 YE Projected	\$356	\$218	61.2%
2011	\$215		

#### Goal - Number of Homes

Year	Goal No of Units	Actuals	% of Goal Achieved
2000	100	110	110.0%
2001	127	127	100.0%
2002	106	141	133.0%
2003	120	276	230.0%
2004	400	407	101.8%
2005	500	548	109.6%
2006	500	613	122.6%
2007	300	425	141.7%
2008	300	300	100.0%
2009	219	23	10.5%
2010	91		
2010 YTD (Aug)	91	-	0.0%
2010 YE Projected	91	150	164.8%
2011	86		

#### Goal - Installed kWh Savings (000's kWh)

Year	Goal	Actual	% of Goal Achieved
2000	202	226	111.9%
2001	208	208	100.0%
2002	174	230	132.2%
2003	108	297	275.0%
2004	378	385	101.9%
2005	757	1,038	137.1%
2006	588	1,038	176.5%
2007	513	1,672	325.9%
2008	550	801	145.6%
2009	643	62	9.6%
2010	281		
2010 YTD (Aug)	281	-	0.0%
2010 YE Projected	281	463	164.8%
2011	313		

#### Goal - Installed kW Savings

Year	Goal	Actual	% of Goal Achieved
2000	-	-	0.0%
2001	-	-	0.0%
2002	-	-	0.0%
2003	23	25	108.7%
2004	170	173	101.8%
2005	318	212	66.7%
2006	175	231	131.9%
2007	210	290	138.1%
2008	196	267	136.2%
2009	138	31	22.5%
2010	71		
2010 YTD (Aug)	71	-	0.0%
2010 YE Projected	71	117	164.8%
2011	89		

#### Goal - Lifetime kWh Savings (000's kWh)

Year	Goal	Actual	% of Goal Achieved
2000	3,365	3,753	111.5%
2001	4,338	4,338	100.0%
2002	3,816	5,044	132.2%
2003	2,029	5,940	292.8%
2004	7,283	7,412	101.8%
2005	9,435	11,241	119.1%
2006	7,994	15,812	197.8%
2007	6,593	23,327	353.8%
2008	4,950	12,628	255.1%
2009	8,548	884	10.3%
2010	4,283		
2010 YTD (Aug)	4,283	-	0.0%
2010 YE Projected	4,283	6,945	162.2%
2011	3,993		

#### Program Ratios

Year	\$/kWh Target	Actual	\$/LT kWh Target	Actual	\$/kW Target	Actual	Cost/Home
2000	\$1,777	\$2,270	\$0.107	\$0.137	\$0	\$0	\$4,664
2001	\$2,577	\$2,389	\$0.124	\$0.115	\$0	\$0	\$3,913
2002	\$2,437	\$2,261	\$0.111	\$0.103	\$0	\$0	\$3,688
2003	\$4,843	\$1,202	\$0.258	\$0.060	\$22,739	\$14,280	\$1,293
2004	\$1,431	\$1,574	\$0.074	\$0.082	\$3,182	\$3,503	\$1,489
2005	\$1,111	\$1,098	\$0.089	\$0.101	\$2,645	\$5,377	\$2,080
2006	\$1,095	\$0,361	\$0.081	\$0.024	\$3,680	\$1,625	\$612
2007	\$0,772	\$0,092	\$0.060	\$0.007	\$1,886	\$528	\$360
2008	\$0,720	\$0,549	\$0.080	\$0.035	\$2,020	\$1,648	\$1,467
2009	\$0,687	\$3,194	\$0.052	\$0.224	\$3,203	\$6,387	\$8,609
2010	\$1,267	\$0,000	\$0.083		\$5,014		
2010 YTD (Aug)	\$1,267		\$0.083		\$5,014	\$0	
2010 YE Projected	\$1,267	\$0,471	\$0.083	\$0.031	\$5,014	\$1,862	\$1,452
2011	\$0,688		\$0.054		\$2,423		\$2,505

# The United Illuminating Company

## LF-26 Standard Filing Requirement

### Program Notes - Residential New Construction

#### Budget/FTE:

Reduced CEEF financial contribution to HERS rating lowering program costs  
Decrease in incentives for CAC due to cost effectiveness

#### Goal:

86 unit goal reflects program changes and current economic downturn  
57 additional new construction units will be supported under the UI Helps program  
Continue to promote Zero Energy Homes Challenge to support higher performing homes

#### Cost/kWh (Cost/Unit):

Cost rates increase as production is reduced and concentration on higher performance homes.  
Increase UI labor, and revised measure mix

#### Goal Setting Methodology:

86 unit goal is driven by available budget economic environment

#### Metric Changes:

Emphasis is on participation and the install of high performance measures with specific interest in Federal Tax Credit Homes, focus on Homes and building shell/envelope measures, HVAC, HVAC QIV and ductwork

**YGS Standard Filing Requirement**

**Residential New Construction**

<b>Budget Projections</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD(Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Budget</b>	
Labor	n/a	n/a	n/a	\$ 15,195	\$ 32,325	\$ 9,043	\$ 13,565	\$ 34,580	
Outside Service	n/a	n/a	n/a	\$ 27,157	\$ 38,075	\$ 83	\$ 124	\$ 76,150	
Materials & Supplies	n/a	n/a	n/a	\$ 9	\$ 600	\$ 9	\$ 13	\$ 1,200	
Incentives	n/a	n/a	n/a	\$ 267,049	\$ 171,100	\$ 172,957	\$ 231,436	\$ 372,570	
Marketing	n/a	n/a	n/a	\$ 4,379	\$ 5,900	\$ 2,753	\$ 4,193	\$ 11,500	
Administrative Expense	n/a	n/a	n/a	\$ 729	\$ 2,000	\$ 376	\$ 592	\$ 4,000	
Total				\$ 314,517	\$ 250,000	\$ 185,220	\$ 249,922	\$ 500,000	a

<b>Energy Savings Information</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Goals</b>	<b>2009 Actuals</b>	<b>2010 Goal</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goals</b>	
Annual Energy Savings (ccf Reduction Goal)	n/a	n/a	n/a	31,287	30,194	14,367	21,551	41,170	b
Lifetime Energy Savings (ccf Reduction Goal)	n/a	n/a	n/a	782,194	754,853	359,173	538,760	1,029,259	c
Annual Cost Rate (\$/ccf)	n/a	n/a	n/a	\$ 10.05	\$ 8.28	\$ 12.89	\$ 11.60	\$ 12.14	d=a/b
Lifetime Cost Rate (\$/ccf)	n/a	n/a	n/a	\$ 0.40	\$ 0.33	\$ 0.52	\$ 0.46	\$ 0.49	e=a/c
Total Gas Benefit	n/a	n/a	n/a	\$ 684,673	\$ 796,050	378,775	568,163	\$ 790,643	f
Total Gas System Benefit-Cost Ratio	n/a	n/a	n/a	\$ 2.18	\$ 3.18	2.05	2.27	\$ 1.58	g=f/a
Homes Served	n/a	n/a	n/a	326	101	86	129	95	h
Lifetime Savings per Home (ccf)	n/a	n/a	n/a	2,399	7,474	4,176	4,176	10,865	i=c/h
Program Cost per Home	n/a	n/a	n/a	\$ 965	\$ 2,475	\$ 2,154	\$ 1,937	\$ 5,278	k=a/h
Benefit per Home	n/a	n/a	n/a	\$ 2,100	\$ 7,882	\$ 4,404	\$ 4,404	\$ 8,346	l=f/h

**Program Costs**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	n/a	-
2009	\$ 250,000	\$ 314,517	126%
2010 YTD (Aug)	n/a	\$ 185,220	-
2010 YE projection	\$ 250,000	\$ 249,922	100%
2011	\$ 500,000	n/a	-

**Goal - Participation/Units**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	n/a	-
2009	150	326	217%
2010 YTD (Aug)	n/a	86	-
2010 YE projection	101	129	128%
2011	95	n/a	-

**Goal - Annual ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	n/a	-
2009	37,800	31,287	83%
2010 YTD (Aug)	n/a	14,367	-
2010 YE projection	30,194	21,551	71%
2011	41,170	n/a	-

**Goal - Lifetime ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	n/a	-
2009	945,000	782,194	83%
2010 YTD (Aug)	n/a	359,173	-
2010 YE projection	754,853	538,760	71%
2011	1,029,259	n/a	-

**CNG Standard Filing Requirement**

**Residential New Construction**

<b>Budget Projections</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Budget</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD(Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Budget</b>	
Labor	n/a	n/a	n/a	\$ 14,856	\$ 32,325	\$ 7,705	\$ 11,557	\$ 33,250	
Outside Service	n/a	n/a	n/a	\$ 258	\$ 38,075	\$ 9	\$ 13	\$ 53,305	
Materials & Supplies	n/a	n/a	n/a	\$ -	\$ 600	\$ 83	\$ 124	\$ 840	
Incentives	n/a	n/a	n/a	\$ 158,889	\$ 171,100	\$ 141,582	\$ 235,372	\$ 251,545	
Marketing	n/a	n/a	n/a	\$ 4,361	\$ 5,900	\$ 1,502	\$ 2,253	\$ 8,260	
Administrative Expense	n/a	n/a	n/a	\$ 583	\$ 2,000	\$ 317	\$ 475	\$ 2,800	
Total				\$ 178,946	\$ 250,000	\$ 151,196	\$ 249,794	\$ 350,000	a

<b>Energy Savings Information</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Goals</b>	<b>2009 Actuals</b>	<b>2010 Goals</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goals</b>	
Annual Energy Savings (ccf Reduction Goal)	n/a	n/a	n/a	27,705	30,194	15,646	25,849	27,797	b
Lifetime Energy Savings (ccf Reduction Goal)	n/a	n/a	n/a	692,626	754,853	391,132	646,197	694,916	c
Annual Cost Rate (\$/ccf)	n/a	n/a	n/a	\$ 6.46	\$ 8.28	\$ 9.66	\$ 9.66	\$ 12.59	d=a/b
Lifetime Cost Rate (\$/ccf)	n/a	n/a	n/a	\$ 0.26	\$ 0.33	\$ 0.39	\$ 0.39	\$ 0.50	e=a/c
Total Gas Benefit	n/a	n/a	n/a	\$ 606,272	\$ 796,050	412,479	681,464	\$ 790,643	f
Total Gas System Benefit-Cost Ratio	n/a	n/a	n/a	\$ 3.39	\$ 3.18	2.73	2.73	\$ 2.26	g=f/a
Homes Served	n/a	n/a	n/a	116	101	36	59	64	h
Lifetime Savings per Home (ccf)	n/a	n/a	n/a	5,971	7,474	10,865	10,865	10,865	i=c/h
Program Cost per Home	n/a	n/a	n/a	\$ 1,543	\$ 2,475	\$ 4,200	\$ 4,200	\$ 5,472	k=a/h
Benefit per Home	n/a	n/a	n/a	\$ 5,226	\$ 7,882	\$ 11,458	\$ 11,458	\$ 12,361	l=f/h

**Program Costs**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	n/a	-
2009	\$ 250,000	178946	72%
2010 YTD (Aug)	n/a	\$ 151,196	-
2010 YE projection	\$ 250,000	\$ 249,794	100%
2011	\$ 350,000	n/a	-

**Goal - Participation/Units**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	n/a	-
2009	150	116	77%
2010 YTD (Aug)	n/a	36	24%
2010 YE projection	101	59	40%
2011	64	n/a	-

**Goal - Annual ccf savings**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	n/a	-
2009	37,800	27705	73%
2010 YTD (Aug)	n/a	15,646	-
2010 YE projection	30194	25,849	86%
2011	27,797	n/a	-

**Goal - Lifetime ccf savings**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	n/a	-
2009	945,000	692626	73%
2010 YTD (Aug)	n/a	391,132	-
2010 YE projection	754,853	646,197	86%
2011	694,916	n/a	-

**SCG Standard Filing Requirement**

**Residential New Construction**

<b>Budget Projections</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD(Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Budget</b>	
Labor	n/a	n/a	n/a	\$ 9,864	\$ 32,325	\$ 5,081	\$ 7,622	\$ 33,250	
Outside Service	n/a	n/a	n/a	\$ 178	\$ 38,075	\$ 55	\$ 83	\$ 45,890	
Materials & Supplies	n/a	n/a	n/a	\$ -	\$ 600	\$ 9	\$ 13	\$ 720	
Incentives	n/a	n/a	n/a	\$ 174,098	\$ 171,100	\$ 91,731	\$ 239,962	\$ 210,860	
Marketing	n/a	n/a	n/a	\$ 3,371	\$ 5,900	\$ 1,155	\$ 1,732	\$ 7,080	
Administrative Expense	n/a	n/a	n/a	\$ 401	\$ 2,000	\$ 152	\$ 229	\$ 2,400	
Total				\$ 187,911	\$ 250,000	\$ 98,183	\$ 249,640	\$ 300,000	a

<b>Energy Savings Information</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Goals</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goals</b>	
Annual Energy Savings (ccf Reduction Goal)	n/a	n/a	n/a	20,308	30,194	2,073	5,271	23,301	b
Lifetime Energy Savings (ccf Reduction Goal)	n/a	n/a	n/a	507,718	754,853	51,808	131,727	582,520	c
Annual Cost Rate (\$/ccf)	n/a	n/a	n/a	\$ 9.25	\$ 8.28	\$ 47.36	\$ 47.36	\$ 12.88	d=a/b
Lifetime Cost Rate (\$/ccf)	n/a	n/a	n/a	\$ 0.37	\$ 0.33	\$ 1.90	\$ 1.90	\$ 0.52	e=a/c
Total Gas Benefit	n/a	n/a	n/a	\$ 444,418	\$ 796,050	54,636	138,916	\$ 447,473	f
Total Gas System Benefit-Cost Ratio	n/a	n/a	n/a	\$ 2.37	\$ 3.18	\$ 0.56	\$ 0.56	\$ 1.49	g=f/a
Homes Served	n/a	n/a	n/a	71	101	8	101	54	h
Lifetime Savings per Home (ccf)	n/a	n/a	n/a	7,151	7,474	6,476	1,306	10,865	i=c/h
Program Cost per Home	n/a	n/a	n/a	\$ 2,647	\$ 2,475	\$ 12,273	\$ 2,475	\$ 5,595	k=a/h
Benefit per Home	n/a	n/a	n/a	\$ 6,259	\$ 7,882	\$ 6,829	\$ 1,377	\$ 8,346	l=f/h

**Program Costs**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	n/a	-
2009	\$ 250,000	\$ 187,911	75%
2010 YTD (Aug)	n/a	\$ 98,183	-
2010 YE projection	\$ 250,000	\$ 249,640	100%
2011	\$ 300,000	n/a	-

**Goal - Participation/Units**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	n/a	-
2009	150	71	47%
2010 YTD (Aug)	n/a	8	-
2010 YE projection	101	101	100%
2011	54	n/a	-

**Goal - Annual ccf savings**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	n/a	-
2009	37,800	20,308	54%
2010 YTD (Aug)	n/a	2,073	-
2010 YE projection	30,194	5,271	17%
2011	23,301	n/a	-

**Goal - Lifetime ccf savings**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	n/a	-
2009	945,000	507,718	54%
2010 YTD (Aug)	n/a	51,808	-
2010 YE projection	754,853	131,727	17%
2011	582,520	n/a	-

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## Home Energy Solutions (Electric and Natural Gas)

**Objective:** The objective of the Home Energy Solutions (“HES”) program is to reduce total residential energy use through the comprehensive treatment of all single-family and multi-family residential dwellings.

Home Energy Solutions (“HES”) has become the flagship residential retrofit program serving all existing residential structures including single and multi-family properties. Beginning in 2011, the existing limited income programs (formerly called WRAP and UI Helps) will be combined under the existing Home Energy Solutions Program umbrella. Also, the stand-alone HVAC and retrofit geothermal equipment and QIV rebates will continue to be included under HES. This will make HES an inclusive program to serve all residential customers.

Also, the stand-alone HVAC and retrofit geothermal equipment and QIV rebates will continue to be included under HES.

**Target Market:** All residential customers including single and multi-family properties. Targeting high use electric and gas heating customers. Eligible electric and natural gas customers will typically have either electric or natural gas space heat. Homes with ductwork located in attics and crawl spaces will receive particular attention and may be targeted through specific marketing and outreach campaigns. The Companies will establish high energy-use targeting criteria based on normalized energy usage.

**Program Description:** Home Energy Solutions (“HES”) began as a Connecticut Energy Efficiency Fund (“CEEF”) electric distribution companies’ conservation duct sealing pilot, rolled out in the beginning of 2006. Later in the year, the three natural gas companies (Yankee Gas, Connecticut Natural Gas, and Southern Connecticut Gas) began implementing the General Weatherization Program (“GWP”), offered in conjunction with the electric duct sealing pilot to provide customers one stop shopping for comprehensive duct sealing, weatherization and other energy saving measures. In 2007, HES continued to

evolve and received national recognition by the American Council for an Energy Efficient Economy (“ACEEE”).

In 2008, the utilities developed formal training and vendor certification, and introduced outside financing into the program to encourage homeowners to take more comprehensive efficiency measures. In 2008, the Department of Public Utility Control (“DPUC”) established a formal HES Working Group consisting of representatives from the participating utilities, HES vendors, the EEB, and other interested parties.<sup>5</sup> The working group first met on February 24, 2009. During this initial meeting, the group developed a mission statement: *minimizing total energy consumption and peak demand by maximizing energy efficiency in residential structures.*

Since the formation of HES, there have been various communications (both “on the record” as part of DPUC proceedings as well as less formal communications between various parties) regarding the evolution of HES into a “market based program.” The term “market based” has led to confusion among various parties, including members of the HES Working Group. A true market based program would operate with no outside intervention (i.e., in this case, rate payer funding). For energy efficiency measures and services, it would be difficult to find a true market based program because the utilities (or other entities) may have tangential involvement. However, there are various degrees of market based offerings that range from very limited to significant subsidy or other support.

For example, the market for energy efficient appliances has been transformed into a market based program. That is, efficiency program support for the sale of energy efficient appliances has been essentially eliminated, yet the sale of such appliances has continued (although there is some support for energy efficient appliance sales through other efforts such as ENERGY STAR). The opposite of a market based approach would be an activity occurring primarily or in significant amounts

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<sup>5</sup> Docket No. 08-10-03. DPUC Review of the Connecticut Light and Power Company and The United Illuminating Company’s Conservation and Load Management Plan.

because of outside intervention (e.g., efficiency program supports). An example would be duct sealing offered through the HES program. Duct sealing on existing homes is not a typical service offered through the open market. Therefore, it is assumed that duct sealing is an efficiency program (not market) based offering because the vast majority of duct sealing that takes place on existing homes happens as direct result of HES.

Market based, in the context of HES, should not be confused with HES transforming the market (similar to the sale of energy efficient appliances). Nor does it necessarily mean that program costs can be reduced in the near-term without reducing energy savings (although reduced program costs are a key objective of making the program cost-effective). Instead, market based as used to describe HES means that the program will be opened up to more private participants (vendors/contractors) and will allow the participants flexibility in marketing, customer intake and custom offerings.

The long term goal of HES, and what is meant by market based, ***is to shift from an efficiency program that is dependent on ratepayer funding to a self sustaining industry that can be leveraged by CEEF funding.*** Therefore, the future of HES will look more like other efficiency program offerings such as Small Business, Retail Products or the HVAC rebate Programs. These Energy Efficiency Fund offerings are built on existing private market channels, but they do not define the market.

In an effort to meet the long term goals of HES, the Companies in consultation with the Department, EEB and the HES Working Group, the following program enhancements have been made:

- Established an appropriate co-pay for electric and natural gas heat customers \$75 and \$300 for fuel oil customers
- Reevaluated Program limits on services in particular in the areas of diagnostic air and duct sealing. Program limits have been lifted and a tiered pricing structure has been introduced as to ensure measure cost effectiveness while increasing program savings

- Established statewide pricing for HES Core Service Measures
- Increase the number CFLs installed under the program to 25 and target installation of said bulbs in high use fixtures and sockets
- Implemented a window rebate for those homes with single pane and no storms
- Established QA/QC protocol
- Increase Program communication to vendors not only within the HES Working Group but also through quarterly meetings
- Establishment of a minimum requirement of at least one crew member on each job to Building Performance Institute (BPI) Building Analyst 1 and lead renovator certified
- Vendors must be registered with the Department of Consumer Protection as a Home Improvement Contractor
- Establish a customer “report card” Home Energy Yard Stick (HEY)
- HES is becoming a Home Performance with ENERGY STAR participant
- Launch of attractive customer financing options
- Increase number of vendor base from 6 vendors to 19 statewide and employ close to 200 individuals to support HES
- Established marketing guidelines to ensure that the Program and the Fund are being marketed within the guidelines established by the Department and EEB
- Successful integration of ARRA funding into the HES program
- Establish partnership with CCEF and the municipal Energy Task Forces and Green Communities to promote HES

Since the Programs' inception and with the inclusion of the HES- Income Eligible track for customer participation, the Companies in consultation with the HES Working Group and the EEB consultants have been striving to make HES be a program offering that provides a comprehensive approach and evaluation of one's home. And, to ensure that all possible energy efficiency upgrades are pursued and customers are provided with a combination of financial incentives and attractive financing to encourage the implementation of energy efficient measures.

There are two tracks for customers to participate in HES, and there is an additional comprehensive energy efficiency track promoted and provided to customers:

**1) HES - Core Services.** The objective of Core Services is to identify comprehensive cost effective energy conservation opportunities in single family homes and educate and communicate these opportunities to the homeowner. It does this by providing initial diagnostic testing and evaluation of homes. In addition to testing and evaluation services, cost effective measures including blower door guided air sealing, duct sealing, installation of Compact Fluorescent Lamps (CFLs), domestic hot water measures, pipe insulation, and a power cost monitor are installed as part of Core Services. The following is a summary of Core Services measures that are installed:

- Blower door guided air sealing
  - A blower door test is a diagnostic tool that measures the amount of air infiltration or "draftiness" of a home. The test produces a partial vacuum in the house and measures the number of cubic feet per minute ("CFM") leakage. The vacuum locates air leakage sites that may be sealed during the HES visit. A "before" and "after" reading is used to measure the total reduction in leakage in homes. The reduction in leakage translates directly to energy savings.
- Duct sealing

- Air flow test or heat rise test is performed to determine if it is appropriate to seal ducts based on the system air flow. If appropriate, a fan called a “ductblaster” is used to measure the amount of air leaks through the duct system that can be sealed with UL-rated adhesive products. Similar to the blower door, “before” and “after” measurements are taken to quantify the leakage reduction.
- Installation of CFL bulbs where possible and approved by customer
- Installation of water measures (low flow showerheads and aerators)
- Installation of pipe insulation for hot water heater
- Power Cost monitor provided to customer for measuring energy usage of appliances
- Attic hatch and whole house fan covers will be offered to customers on a case-by-case basis. Since these are typically fabricated on site, the cost will vary and customers will typically be required to make a co-pay for them.
- An important part of the Core Services visit is the educational services provided to customers. In 2010, the Companies developed a Home Energy Yardstick (HEY) tool, which is used to educate customers and to encourage them to install additional and more comprehensive other energy efficient upgrades including but not limited to the following measures:
  - HVAC rebates and tax credit information for the replacement of central air conditioners and heat pumps
  - Rebates for the replacement of older refrigerators, freezers that are 10 years old or older, and dehumidifiers that do not meet the ENERGY STAR specification
  - Insulation rebate (oil and propane homes eligible through ARRA funding)

- Window rebate for single pane windows without storms (homes with electric and natural gas)
- Clothes washer rebate (oil and propane homes eligible through ARRA funding) for clothes washers that do not meet the ENERGY STAR specification
- Time-of-Day Rate Education where appropriate
- Consumer Financing
- Education (during the kitchen table wrap-up)

In early 2009 the Companies implemented statewide set pricing for these Core Services. In addition, the Companies established selection criteria for vendors/contractors to participate in the In Home Energy Services component of the Program and required vendors/contractors be registered with the Department of Consumer Protection as a Home Improvement Contractor which provides consumer and contractor/vendor protection under Connecticut's Home Improvement Act. Minimum certifications for the lead technician on each crew were established making it mandatory that each lead be Building Performance Institute (BPI) Building Analyst I certified. In 2011 the Companies will continue to look to increase the quality and performance of HES vendors by requiring additional minimum certifications needed to be obtained by technicians for possible considered as a vendor within the Program.

HES Core Services has established a solid infrastructure for program delivery. Currently 136 technicians implement the HES Core Services program in Connecticut through 19 contractors. A number of these contractors provide market base services such as home improvement contractors, insulation contractors, heating and cooling contractors and oil delivery companies. HES Core Services has begun to establish a home energy efficiency service provider industry/network which prior to HES had not yet existed within the State.

In late 2008 and through 2009, a \$75 fee for services was initiated by the Companies through Department Order (Docket

08-10-03, Interim Decision dated November 12, 2008). Through a partnership with the Connecticut Office of Policy and Management (“OPM”) regarding integration of oil and propane measures into HES (Clean, Tune and Test/Home Audit Program) fuel oil and propane customers previously had a co-pay of \$300 to receive HES services, but this was reduced pursuant to authorizing legislation to \$75 until June 30, 2009 enabling oil and propane heat customers to receive the same In-Home Energy Services as natural gas or electric heat customers. As of July 1, 2009, the Department authorized the Companies to continue to offer HES to fuel oil and propane customers for the \$75 fee until the State receives funding from the American Recovery and Reinvestment Act (ARRA) of 2009 within the State’s Energy Plan which will continue to allow the \$75 fee for oil and propane customers.

As of 2010, HES continues to be offered to oil and propane for the \$75 fee due to funding from ARRA. This funding is expected to be exhausted in early 2011.

Building Performance Institute (BPI) standards are used as a foundation of knowledge for the HES program. Technicians must be prepared to employ processes, testing and services only under safety guidelines as found in the BPI Technical Standard for the Building Analyst Professional v2/28/05 mda or most recently approved. Safety standards for carbon monoxide testing, gas leak detection, hazardous material management, combustion zones, and lead paint awareness are provided. Asbestos like material or mold issues should be documented and assessed to determine if testing and sealing can be done safely. If the home cannot be tested, the homeowner should be instructed on the next steps for material testing and remediation.

HES Core Services is the initial step or entrée into the HES Program and serves as the roadmap/process for which customers will be further educated and encouraged to adopt energy efficient practices and upgrades.

The following 4 components highlight how a customer can progress through HES to increase their homes energy efficiency.

**a.) Home Performance with ENERGY STAR (formerly called Tier II).**

In late 2009 the Companies applied to the US EPA Home Performance with ENERGY STAR Program to have HES recognized as a Program participant. Based on HES' current program offering and the promotion of comprehensive service and measures HES efforts will be recognized by the Home Performance tier. This program element is designed to encourage and allow customers to complete any comprehensive custom project.

By taking a whole house approach, Home Performance allows customers to do more comprehensive projects that meet the needs of the individual customer by allowing for creative energy efficiency solutions by providing custom incentives based on a whole-house approach.

The first step in Home Performance is an initial analysis of the home including custom upgrade(s) that can be made to improve the overall energy efficiency. The cost and energy savings analysis for these custom projects will be reviewed by the Companies. Billing histories and comparing savings calculations to acceptable engineering practice will be considered during the review process. Once cost and savings estimates are finalized, a letter of agreement will be executed containing the incentive information. Customers will be paid once the project is completed and inspected by a company representative.

Home Performance is similar in design to the C&I retrofit conservation program, but accepts residential and multi-family projects into the program through letters of agreement with contractors. Home Performance projects may utilize other programs and offerings (e.g., C&I programs, natural gas programs, tax credit programs, etc.) to deliver more

comprehensive services to customers with potential attractive financing options.

**b.) HVAC (Heating, Ventilating and Air Conditioning).**

The Heating and Cooling System Efficiency component of HES provides incentives to increase heating and air conditioning equipment efficiency and improve system installation quality. Induced replacement (i.e., early retirement) of older, inefficient equipment will be a key market strategy. Proper performance and efficiency of central air conditioners and heat pumps is linked directly to the design and installation of the system.

In 2009, the Companies began a quality installation verification (“QIV”) pilot based on the Air Conditioner Contractors of America (ACCA) ANSI/ACCA 5 QI-2007 Installation Specification. The pilot focused on design and installation details including equipment sizing, ductwork, and refrigerant charge. The purpose of the pilot was to assess the potential for linking equipment rebates to QIV installations. For 2011, QIV completion incentives will be available on all ducted air conditioning, heat pump and natural gas furnace installations. The QIV does not apply to ground source HP installs as this type has a similar individual commissioning program.

The QIV process will be as described in the ANSI/ACCA specification with verification as described in the ANSI/ACCA 9 QIVP-2009 Standard with assistance from ENERGY STAR. QIV is a commissioning process that begins with design verification and ends when installed systems are tested and verified to match provided plans and all supporting information is left with the customer as well as maintained by the contractor. As build documents, manufacturers’ technical documents, warranties, operation and maintenance documents and the passing QIV certificate are required to be provided.

Contractors will receive training and site assistance for performing QIV and will be listed on the companies’ websites as levels appropriate with successful completions. Training of the HVAC trades is a critical measure in the development of the QIV specification in Connecticut. Only trained verified North

American Trade Excellence (NATE) core certified (+ 1 level appropriate to the installed equipment technicians) may participate in the QIV program and must be approved by the utilities.

The Residential Geothermal Verification of Installed Performance (VIP) for ground source heat pump (“GSHP”) installations offers incentive to reduce the use of energy in homes that are installing GSHP technology by providing a financial incentive for commissioning and documentation of performance through field testing. Customers installing geothermal systems will be required to participate in either the Residential New Construction Program or HES (or have a comparable energy assessment service to ensure that all cost-effective shell upgrades are made prior to the geothermal installation).

The Ductless Heat Pump Initiative fosters awareness and adoption of ductless heat pumps as a measure to reduce energy consumption. Qualified residential customers will receive a financial incentive for installing a ductless heat pump. A higher incentive is applicable to a home which utilizes electric resistive baseboard or heat panels as its heating source. A lower incentive will be applicable to other installations including, but not limited to, those in fossil fuel homes, basement remodels, and additions.

Ductless Heat Pumps (“DHPs”) are an efficient heating and cooling technology that can be used as a cost effective heating and cooling option in a variety of residential situations.

DHPs have an impressive track record in Japan and to a lesser degree in small commercial application in the United States. Recent technological enhancements have greatly increased the efficiency of DHPs through inverter technology. Inverter technology allows systems to run at more efficient partial load conditions rather than cycling on and off. Much like an automobile, constant speed operation of heat pumps is more efficient than “stop and go” operation. As a result of the inverter

technology, DHPs are typically 10 to 30 percent more efficient than standard heat pumps.

In 2007, a pilot program was conducted to test the feasibility of this technology to help offset electric resistance heat. Through the pilot, about 100 ductless heat pumps were installed in Connecticut homes to replace electric resistance heat. A study was done by a third party to evaluate energy savings potential and customer satisfaction.

The objective of the joint CL&P and UI Residential Ductless Heat Pump (“DHP”) Initiative is to drive the replacement of residential electric heat with ductless heat pumps. At the same time, the program contains a strong educational component which will provide training assistance to HVAC contractors. In addition, participating customers are provided support to ensure that they understand the operating characteristics of Ductless Split Heat Pumps DHP, and routine maintenance procedures.

**c.) Multi-Family Initiative (MF).**

The multi-family initiative captures measures and savings that are currently being provided under various C&LM offerings but not clearly identified as MF projects. The Companies will continue to expand its services available to MF projects by specifically inserting a MF aspect into current program offerings. The objective of the multi-family (“MF”) initiative is to capture measures and savings that are currently being provided under various C&LM offerings but not clearly identified as MF projects. The Companies will continue to expand its services available to MF projects by specifically inserting a MF aspect into current program offerings.

The following facilities can be addressed through the MF initiative:

- Assisted living facilities
- Dorms
- Group homes

- Apartment complexes
- High-rise (condos and apartments)

To the extent possible, the initiative will utilize existing gas and electric C&LM programs including commercial and industrial offerings, and will deliver them to customers under one umbrella with a single offering. To remove barriers and offer customers “one-stop” shopping, a single Program Administrator (“PA”) will serve as the primary contact for customers to help facilitate the process and make participation straightforward.

Financial incentives will be provided via the array of other programs including natural gas as well as electric conservation offerings. In addition, other state and federal programs will be leveraged wherever possible. These may include other rebate programs such as State or Clean Energy Fund offerings, or local or federal tax credits.

The Companies will continue to utilize existing programs and identify those projects that are eligible for incentives under the Multifamily Initiative.

In 2010, HES allowed submission of comprehensive projects into the program for consideration (through the Home Performance with HES). This offering will be similar to the Customer Initiated Projects Program that was offered in 2005 which targeted multi-family buildings. This offering will allow customers, management companies, or project engineers the flexibility to submit comprehensive multi-family projects into the program for consideration.

**d.) Consumer Financing.**

HES provides attractive third-party consumer financing for energy improvement projects recommended and/or offered through the program. In addition to the Energy Conservation Loan program offered through CHIF, the Companies through a competitive bid process sought out other financing mechanisms for residential consumers. A Residential Financing Pilot program was initiated on June 1, 2010. The loans offer competitive interest rates and provide both customers and vendors/contractors options to aid in the adoption of energy efficiency measures. Please refer to section on Financing within Residential Programs.

**2.) HES- Income Eligible (HES-IE), formerly WRAP and UI Helps.** HES-Income Eligible offers a full range of energy conservation measures to address inefficient lighting, water heating, inefficient heating and cooling, refrigeration, dehumidification and insufficient insulation to limited-income customers.

The HES-IE component of the program may be targeted to customers with the following criteria: (a) income that is at or below 60 percent of the state median income, (b) energy burden (percent of total annual income spent on energy) that is high, (c) have not received energy conservation services in the prior 18 months, and (d) target customers who reside within Community Reinvestment Act areas and their eligible census tracts. The Electric and Natural Gas Companies can also target financially challenged customers facing other issues that may interfere with their ability to take advantage of conservation services. Examples of these customers include group living settings such as residential treatment facilities, group homes, halfway houses, disabled veterans groups, not for profit agencies who offer housing to disadvantage residents and shelters.

The objectives of the Electric and Natural Gas Companies' income-eligible programs are; to provide comprehensive weatherization, energy conservation and education services to limited-income customers in order to reduce their energy burden, to make utility bills more affordable and homes more energy-efficient and comfortable, to provide energy efficiency

education to raise customer awareness of conservation and to encourage them to take behavioral and other steps beyond weatherization. The following is a summary of HES-IE measures that are installed:

- Blower door guided air sealing
- Duct Sealing
- Installation of:
  - CFL bulbs
  - Lighting fixtures
  - Low-flow showerheads
  - Low-flow faucet aerators
  - Door sweeps
  - Weather stripping
  - Caulking
  - Insulation
- ENERGY STAR qualified refrigerators, freezers, ductless heat pumps and dehumidifiers are provided and installed to qualifying customers.
- Program participants may also receive: burners and furnace repairs/replacements (CL&P, CNG and Yankee Gas).
- Program participants may receive funds to offset the heating equipment co-pay for the DOE weatherization assistance program.
- Program participants who exclusively use electric heat or gas heat can be considered for replacement of single-pane windows with ENERGY STAR qualified windows. These windows may require co-pay from a landlord or property owner/manager.

An important part of the services is to provide Client Education. Customers are educated on use and care of conservation

measures installed to ensure continued savings. They are also provided with tools to help them further conserve.

Marketing Strategy:

**HES (all sub-components):**

- As the HES program has matured, the Companies rely more upon contractor-generated marketing to drive customer enrollment. The Companies may augment enrollment with:
  - Bill inserts.
  - Telemarketing.
  - Radio or Print media campaign.
  - Targeted direct mail of program benefits.
  - Special-interest publications (print and electronic) such as Company newsletters, legislator's constituent newsletters and government employee newsletters to direct residents to the WISE-USE line or CTEnergyInfo.com for applications.
  - Presence at strategically selected consumer shows and residential fairs.
  - Promotion program through HVAC, insulation and oil delivery companies.
  - Web Links from the Companies websites to the approved HES vendors/contractors web sites.
  - Leverage and promote to eeCommunities.
- To maximize the benefits of HES services provided and to encourage favorable behavioral changes, the Companies will assist residents through education and support. This support may include:
  - Develop and distribute articles on low-cost or no-cost energy efficiency tips. Placement in newsletters, local media, and associated web sites sponsored by groups such as the EEB, the CCEF, legislators' sites, conservation sites, etc.

- Write and distribute case studies (also referred to as Success Stories or Testimonials) to the sites listed above and to local media.
- Produce video for HES, post video segments on the Companies' sites and link from other affiliated/appropriate sites. Explore use of Local Access TV.

To help move HES towards a market based program and to reduce program costs, HES vendors are encouraged to market their services to customers. In 2010, the Companies developed marketing guidelines that vendors must adhere to when marketing Energy Efficiency Fund programs or offerings. The Energy Efficiency Fund encourages its partners and vendors to align their promotional efforts with a campaign that supports awareness of the Energy Efficiency Fund while maintaining established marketing regulations and standards. By using advertising that promotes HES and the Energy Efficiency Fund, vendors can deliver consistent messaging to customers and demonstrate to customers that they offer quality solutions.

As administrators of the programs, the Companies must approve submissions for advertising in all media including:

- Print: newspaper, magazine and inserts
- Direct Marketing: mailers, inserts, postcards, and coupons
- TV: all TV broadcasting
- Radio: all radio broadcasting
- Internet: approved on an individual basis

The Companies provide each partner with the appropriate logos and copy points as requested. Partners must use these logos and copy points in the manner directed by the Company's advertising coordinators. Once the logos are placed in any advertisement, they must be submitted to the advertising coordinator for approval, BEFORE they are released to the media outlet. Any advertisement released without approval will

be construed as a misrepresentation of the programs and the Energy Efficiency Fund.

The Companies reserve the right to deny creative execution or any element of advertising/direct marketing containing any utility company logo or the Energy Efficiency Fund's products, logo or name if any element is deemed inappropriate. CL&P and UI reserve the right to reject any advertising if it is found that the vendor is not performing services as directed or intended by Energy Efficiency Fund/Companies as it pertains to HES and or Energy Efficiency Fund programs.

Incentive Strategy:

The incentive strategies for HES are multifaceted due to the various components of the program and the markets served. HES Core Services will resemble the 2010 HES program with fixed products and services and established program limits. In 2010 The Companies increased the total number of CFLs to 25. The Companies will continue to monitor whether or not program limits and fees are appropriate and adjust accordingly to ensure cost-effectiveness, maintain sufficient program participation levels, is affordable to customers, sustainable and delivers energy savings to customers. In 2009, participating vendors had the flexibility of charging customers market-based rates for their services within the HES Core Services to compensate for service limits on CFLs and diagnostic air and duct sealing. While this arrangement induced some level of competition among contractors, it also created a degree of market and customer confusion because in some cases the market was bombarded by different program offerings and services. In 2011, the Companies will require a fixed \$75 customer co-pay and will not allow vendors to deviate from the \$75 co-pay.

Home Performance with ENERGY STAR will establish an incentive/rebate structure which will encourage customers to pursue deeper retrofits and increase the penetration rate of insulation and appliance upgrades. This incentive structure will look toward a whole house approach and looks to achieve greater electric and natural gas savings.

The following tables show the funding sources for measures and the incentive amounts for rebates/measures. In addition, the table reflects when funds via the American Reinvestment and Recovery Act (“ARRA”) become available all oil/propane measures will be funded through ARRA monies including insulation and clothes washer rebates.

### HES CORE SERVICES FUNDING SOURCES

Measure	Fuel Source					Incentive Amount
	All Electric	Gas Heat with Central Air	Gas Heat w/o Central Air	Oil/Propane Heat with Central Air	Oil/Propane Heat w/o Central Air	
Administration	Electric	25/75 Electric/Gas	Gas	Electric*	Electric**	\$75 co-pay *(Oil/Propane homes with ARRA funding)
Blower Door Test/Air Sealing	Electric	25/75 Electric/Gas	Gas	Electric*	Electric**	Measures included with Core service
Air Flow and/or Heat Rise Test	Electric	25/75 Electric/Gas	Gas	Electric*	Electric**	
Duct Blaster/Duct Sealing	Electric	25/75 Electric/Gas	Gas	Electric*	Electric**	
Installation of CFLs	Electric	Electric	Electric	Electric	Electric	
Domestic Hot Water Measures	Electric	Gas or Electric	Gas or Electric	Electric**	Electric**	
Pipe Insulation/Hot Water Heater	Electric	Gas or Electric	Gas or Electric	Electric**	Electric**	
Power Cost Monitor	Electric	Electric	Electric	Electric	Electric	

\* Pending ARRA funding these measures currently funded by Electric dollars or not funded at all will be funded 50/50 ARRA/Electric

\*\* Pending ARRA funding these measures are currently funded by electric dollars or not funded at all. They will be funded through ARRA funds only.

**CORE SERVICES REBATES FUNDING SOURCES**

Incentive	Fuel Source					Incentive Amount
	All Electric	Gas Heat with Central Air	Gas Heat w/o Central Air	Oil/Propane Heat with Central Air	Oil/Propane Heat w/o Central Air	
Insulation Rebates	Electric	35/65 Electric/Gas	Gas	N/A**	N/A**	Up to .50/sq.ft. not to exceed 50 percent of install cost
Clothes Washer Rebates	Electric	By DHW fuel source Gas or Electric	By DHW fuel source Gas or Electric	N/A**	N/A**	\$50 mail in rebate
Freezer Rebates	Electric	Electric	Electric	Electric	Electric	\$25 mail in rebate
Refrigerator Rebates	Electric	Electric	Electric	Electric	Electric	\$50 mail in rebate
Dehumidifier Rebates	Electric	Electric	Electric	Electric	Electric	\$25 mail in rebate
Window Rebates	Electric	Gas	Gas	N/A**	N/A**	\$50.00/single pane window not to exceed 50 percent of installed cost
Residential Low Interest Energy Financing	Electric	Gas	Gas	N/A**	N/A**	To be determined per dollar amount/interest rate
Double the Rebate	Electric	Gas	Gas	N/A**	N/A**	Doubles the rebate amount for within 45 days of HES for appliances only.

\* Pending ARRA funding these measures currently funded by Electric dollars or not funded at all will be funded 50/50 ARRA/Electric

\*\* Pending ARRA funding these measures are currently funded by electric dollars or not funded at all. They will be funded through ARRA funds only.

### HVAC REBATES AND FUNDING SOURCES

Measure	Rebate Amount	Funding Source
ENERGY STAR Central Air Conditioner or Heat Pump (8.2 HSPF, 14.5 SEER, 12 EER for split systems; 8.0 HSPF, 14 SEER, 11 EER for single packaged systems)	\$250*	Electric
ENERGY STAR QIV Incentive	\$500 for AC or Heat Pump \$100 for Gas Furnace	Electric for AC or Heat Pumps QIV. Natural Gas for furnace QIV.
ENERGY STAR Ductless AC or Heat Pump (8.2 HSPF, 14.5 SEER, 12 EER)	\$250 or \$1000** (for qualifying ductless heat pumps that will be displacing electric resistance heat)	Electric
Geothermal VIP incentive for units that meet ENERGY STAR 2012 criteria.	\$500 per ton capped at \$1,500	Electric
Natural Gas Furnace Rebate for CEE Tier II criteria of 92% AFUE and Air Handler Performance Level E <sub>EA</sub> of 2% or lower.	\$500***	50% Electric 50% Natural Gas

\* The \$250 Central Air and Heat Pump incentive can be doubled through HES to \$500 for early retirement situations. In order to qualify for the \$500 double rebate, the new system must be replacing an existing system which is still operable and the home must receive HES Core Services at which time the HES technician provides verification that the existing system is operable. In addition, the customer must have the new Central Air or Heat Pump installed within 45 days of the HES Core Services initial visit.

\*\* Customers must receive HES Core Services prior to the installation of the Ductless Heat Pump.

\*\*\* Furnace rebate is an early retirement measure. In order to qualify for this rebate, the new system must be replacing an existing natural gas furnace which is still operable. In addition, the home must receive HES Core Services at which time the HES technician provides verification that the existing system is operable. In addition the new furnace system must be installed within 45 days of the HES Core Services initial visit.

**HES Income Eligible MEASURE FUNDING SOURCES**

Measure	Fuel Source					Incentive Amount
	All Electric	Gas Heat with Central Air	Gas Heat w/o Central Air	Oil/Propane Heat with Central Air	Oil/Propane Heat w/o Central Air	
Administration	Electric	20/80 Electric/Gas	Gas	Electric	Electric	
Blower Door Test/Air Sealing	Electric	20/80 Electric/Gas	Gas	Electric	Electric	
Air Flow and/or Heat Rise Test	Electric	20/80 Electric/Gas	Gas	Electric	Electric	
Duct Blaster/Duct Sealing	Electric	40/60 Electric/Gas	Gas	Electric	Electric	
Installation of CFLs	Electric	Electric	Electric	Electric	Electric	
Domestic Hot Water Measures	Electric	Gas	Gas	Electric	Electric	
Pipe Insulation/Hot Water Heater	Electric	Gas	Gas	Electric	Electric	
Insulation	Electric	Gas	Gas	Electric	Electric	
Windows	Electric	Gas	Gas	Electric	Electric	
Refrigerator and Freezer Replacement	Electric	Gas	Gas	Electric	Electric	Co-payment of \$100 required for landlords
HVAC including furnace and ductless heat pumps	Electric	Gas	Gas	Electric	Electric	Pay up to cost effective threshold. \$545 furnace replacement co-pay may be provided by the program for ARRA/DOE funded projects.
Insulation	Electric	Gas	Gas	Electric*	Electric*	

Goals: Refer to Standard Filing Requirements for program goals.

New Program Issues: This program was developed in 2006 and has grown exponentially in a relatively short time becoming the flagship residential efficiency program in Connecticut, receiving local, regional and national recognition. As a result of HES efforts, a residential energy efficiency industry is being developed in Connecticut - an industry that will help customers in Connecticut for many years to come. Recognizing this, the Companies will continue to be proactive to help develop the infrastructure needed for the long term success of this program. As the program has moved to market based vendors (e.g., insulation contractors, HVAC contractors and home audit providers), and the number of vendors/contractors has increased, the Companies believe continued success of HES and customer confidence in the program requires a quality assurance protocol and quality control. The Companies will continue to provide trainings for contractors on such topics as safety, customer service, promoting energy efficient technologies and consumer financing.

In 2008, the DPUC established a formal HES Working Group consisting of representatives from the participating utilities, HES vendors, the EEB, and other interested parties. The working group first met on February 24, 2009. The HES working group will continue to meet in 2011 as a means to provide a continued forum for open dialog between the Companies, the Program vendors, the EEB, and other interested stakeholders. Moving forward, the role of the working group will be subsumed into the monthly Residential Committee meetings. The HES Working Group will continue to explore program enhancements, outreach to community groups, and the leveraging financing opportunities, tax credits, and other sources of funding to help increase the penetration of comprehensive measures in HES.

Finally, as noted above, the Department provided the Companies and HES vendors with the latitude to reduce the co-pay amount to customers in order to drive program participation. As the reduction or elimination of the co-pay does drive program participation, such activities on the part of vendors created

customer confusion and a perceived inequity of services. The Companies propose for 2011 that the co-pay be set at \$75 for electric and natural gas customers and \$300 for oil heated customers and that the Companies have the flexibility to modify the co-pay in order to manage program participation. The purpose for this change is to better manage program participation and Energy Efficiency Fund messaging to customers.

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## CL&P Standard Filing Requirement

### Home Energy Solutions (HVAC, In-Home Services)

All dollar values are in \$000

<u>Budget Projections</u>	<u>2008 Actuals</u>	<u>2009 Actuals</u>	<u>Revised 2010 Budget</u>	<u>2010 YTD (Aug)</u>	<u>2010 YE Projected</u>	<u>2011 Budget</u>	<u>2012 Budget</u>
Labor							
NU Labor	\$ 303	\$ 467	\$ 548	\$ 423	\$ 634	\$ 869	\$ 869
Contractor Staff	\$ 58	\$ 71	\$ 125	\$ 203	\$ 304	\$ -	\$ -
Total Labor	\$ 361	\$ 538	\$ 673	\$ 625	\$ 938	\$ 869	\$ 869
Materials & Supplies	\$ 2	\$ 6	\$ 7	\$ 16	\$ 24	\$ 28	\$ 27
Outside Services	\$ 1,676	\$ 1,496	\$ 4,398	\$ 1,301	\$ 2,235	\$ 2,092 a)	\$ 1,990
Incentives	\$ 5,057	\$ 5,786	\$ 13,606	\$ 7,610	\$ 12,666	\$ 8,225 b)	\$ 7,956
Marketing	\$ 49	\$ 66	\$ 488	\$ 145	\$ 400	\$ 400	\$ 391
Administrative Expense	\$ 13	\$ 11	\$ 50	\$ 10	\$ 14	\$ 40	\$ 39
Other	\$ 10	\$ 47	\$ 95	\$ 12	\$ 18	\$ 95	\$ 93
Total	\$ 7,168	\$ 7,950	\$ 19,317	\$ 9,718	\$ 16,295	\$ 11,749	\$ 11,366

a) Implementation: Includes vendor administrative costs and rebate processing fees, CHIF Loan program.

b) Includes rebates for HVAC equipment including ductless split heat pumps and geothermal, appliances plus direct install measures including air sealing, duct sealing, lighting, and water measures.

#### 2011 Goals and Metrics Information

Demand Savings (kW reduction Goal)	3,584.5
Annual Energy Savings (KWh Reduction Goal)	20,347,357
Lifetime Energy Savings (kWh Reduction Goal)	236,498,218
Annual Cost Rate (\$/kWh)	\$ 0.577
Lifetime Cost Rate (\$/kWh)	\$ 0.050
Electric b/c Ratio	1.85
Total Resource b/c Ratio	2.22

## CL&P Standard Filing Requirement

### Home Energy Solutions (HVAC, In-Home Services)

Year	Program Costs				Cost/participant	\$/LT-kWh
	Budget	Actual	% of Budget			
2000	\$ -	\$ -	0%		\$0	0.000
2001	\$ 500,000	\$ 262,000	52%		\$488	0.096
2002	\$ 660,000	\$ 760,000	115%		\$321	0.051
2003	\$ 1,500,000	\$ 1,086,000	72%		\$659	0.101
2004	\$ 1,500,000	\$ 1,149,000	77%		\$429	0.045
2005 Revised	\$ 3,424,989	\$ 1,686,246	49%		\$456	0.049
2006 Revised	\$ 2,922,000	\$ 3,959,926	136%		\$352	0.065
2007 Revised	\$ 4,900,052	\$ 5,467,875	112%		\$1,071	0.061
2008 Revised	\$ 7,000,000	\$ 7,167,887	102%		\$963	0.066
2009 Revised	\$ 13,914,181	\$ 7,949,640	57%		\$649	0.093
2010 Revised	\$ 19,317,000	n/a	n/a		n/a	n/a
2010 YTD (Aug)	n/a	\$ 9,717,984	50%		\$635	0.070
2010 Y/E Projected	n/a	\$ 16,294,643	84%		\$710	0.083
2011	\$ 11,749,155	n/a	n/a		n/a	n/a

Year	Goal - Participation		
	Goal	Actual	% of Goal
2000	0	0	0%
2001	1,269	537	42%
2002	1,423	2,366	166%
2003	16,372	1,647	10%
2004	2,029	2,677	132%
2005 Revised	4,525	3,700	82%
2006 Revised	9,341	11,237	120%
2007 Revised	4,877	5,106	105%
2008 Revised	11,584	7,446	64%
2009 Revised	18,991	12,257	65%
2010 Revised	25,958	n/a	n/a
2010 YTD (Aug)	n/a	15,304	59%
2010 Y/E Projected	n/a	22,956	88%
2011	19,376	n/a	n/a

Goal - Lifetime MWh savings				Goal - Installed kW Savings			
Year	Budget	Actual	% of Budget	Year	Goal	Actual	% of Goal
2000	0	0	0%	2000	n/a	n/a	n/a
2001	6,034	2,735	45%	2001	n/a	n/a	n/a
2002	8,196	14,846	181%	2002	n/a	n/a	n/a
2003	18,944	10,791	55%	2003	3,371	972	28.8%
2004	16,016	25,460	151%	2004	1,481	2,188	147.7%
2005 Revised	51,967	34,238	64%	2005	5,367	2,856	53.2%
2006 Revised	34,351	60,493	172%	2006 Budget	2,500	3,151	126.0%
2007 Revised	73,564	89,643	122%	2007 Revised	2,579	2,520	97.7%
2008 Revised	109,796	107,856	98%	2008 Revised	3,769	3,261	86.5%
2009 Revised	199,785	85,041	43%	2009 Revised	4,246	2,220	52.3%
2010 Revised	341,045	n/a	n/a	2010 Revised	5,661	n/a	n/a
2010 YTD (Aug)	n/a	139,373	41%	2010 YTD (Aug)	n/a	2,864	50.6%
2010 Y/E Projected	n/a	196,722	58%	2010 Y/E Projected	n/a	5,982	105.7%
2011	236,498	n/a	n/a	2011	3,584	n/a	n/a

### Home Energy Solutions (HVAC, In-Home Services)

Year	Program ratios			
	\$/Lifetime kWh		\$/Annualized kW	
	Plan	Actual	Plan	Actual
2001	0.083	0.096	n/a	1002
2002	0.081	0.051	n/a	698
2003	0.128	0.101	721	1,117
2004	0.094	0.045	1,013	1,182
2005 Revised	0.066	0.049	638	590
2006 Revised	0.085	0.065	1,169	1,257
2007 Revised	0.067	0.061	1,900	2,169
2008 Revised	0.064	0.066	1,857	2,198
2009 Revised	0.085	0.093	3,277	3,581
2010 Revised	0.057	n/a	3,413	n/a
2010 YTD (Aug)	n/a	0.070	n/a	3,393
2010 Y/E Projected	n/a	0.083	n/a	2,724
2011	0.050	n/a	3,278	n/a

## CL&P Standard Filing Requirement

### CL&P Program Notes

**Budget/FTE**

6.5 FTE for program administration, vendor interaction, field inspections, program support.

**Goal**

19,376 Units serviced includes 8,079 in-home services jobs and 5,200 rebates.

**Cost/Unit**

\$606 Average cost per unit.

**Goal Setting Methodology**

HVAC equipment goal was estimated based on size of market and estimated participation rate.  
In-home services goal was based on estimated cost of service and available dollars.

**Metric Changes**

None

**The United Illuminating Company**  
**EL-25 Standard Filing Requirement**  
**2011**

Home Energy Solutions

**Baseline Assumptions:**

Market Residential Customers and the replacement of HVAC equipment < 25 tons

<b>Budget Projections</b>	<b>2010</b>		<b>2010</b>		<b>2011 Bud</b>	<b>2012 Bud</b>
	<b>2009 Act</b>	<b>Revised Bud</b>	<b>YTD (Aug)</b>	<b>YE Projected</b>		
Labor						
UI Labor	\$ 118,923	\$ 272,642	\$ 144,143	\$ 272,642	\$ 244,896 a)	\$ 257,141
Contractor Staff	\$ -	\$ -	\$ -	\$ -	\$ - b)	\$ -
Total Labor	\$ 118,923	\$ 272,642	\$ 144,143	\$ 272,642	\$ 244,896	\$ 257,141
Materials & Supplies	\$ 28,343	\$ 4,759	\$ 29,993	\$ 29,993	\$ 4,759 c)	\$ 4,759
Outside Services	\$ 393,000	\$ 611,384	\$ 352,971	\$ 529,456	\$ 60,452 d)	\$ 60,452
Incentives	\$ 2,376,525	\$ 2,370,272	\$ 3,242,294	\$ 3,722,294	\$ 2,166,227 e)	\$ 1,316,961
Marketing	\$ 242,589	\$ 200,000	\$ 110,139	\$ 200,000	\$ 112,500 f)	\$ 75,000
Other	\$ 169,067	\$ -	\$ 12,390	\$ 12,390	\$ - g)	\$ -
Administrative Expenses	\$ 12,075	\$ 12,425	\$ 5,129	\$ 12,425	\$ 12,479 h)	\$ 12,425
<b>Total</b>	<b>\$ 3,340,521</b>	<b>\$ 3,471,482</b>	<b>\$ 3,897,059</b>	<b>\$ 4,779,200</b>	<b>\$ 2,601,313</b>	<b>\$ 1,726,738</b>

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(1) HES includes Residential Loan Program

- a) 2.3 FTEs
- b) No comment
- c) Printing of program rebate forms, table-top wrap up educational materials, etc.
- d) In-home services audits for 3,985 homes, Processing fees for Program Rebates
- e) In-home services measures for 3,985 homes plus 722 CAC, Goethermal, Heat Pumps and 25 Ductless Heat pumps (electric resistance replacement), appliance and insulation incentives (Clothes Washer, Refrigerator, Dehumidifier, Insulation, and Freezer) QIV subsidies
- f) Seasonal marketing and advertising and public relations, direct mail, and bill insert messaging
- g) No comment
- h) Meals, miles, travel and training

**Goals and Metrics Information:**

	<b>2011</b>
<b>Savings</b>	
Demand Savings (kW)	828
Annual Energy Savings (kWh)	4,056,713
Lifetime Energy Savings (kWh)	42,691,353
Annual Cost Rate (\$/kWh)	\$ 0.641
Lifetime Cost Rate (\$/kWh)	\$ 0.061
Cost per kW	\$ 3,143
Electric System B/C Ratio	1.56
Total Resource B/C Ratio	2.08

## The United Illuminating Company LF-26 Standard Filing Requirement

### Home Energy Solutions

#### Goal - Program Costs (000's)

Year	Budget	Actual	% of Goal Achieved
2001	\$104	\$229	220.2%
2002	\$248	\$286	115.3%
2003	\$366	\$268	73.2%
2004	\$514	\$423	82.3%
2005	\$1,042	\$673	64.6%
2006	\$745	\$784	105.2%
2007	\$1,012	\$1,079	106.6%
2008	\$1,887	\$2,067	109.5%
2009	\$4,891	\$3,090	63.2%
2010	\$2,896		
2010 YTD (Aug)	\$2,896	\$3,897	134.6%
2010 YE Projected	\$2,896	\$3,971	137.1%
2011	\$2,601		

#### Goal - Number of Units

Year	Goal	Actual	% of Goal Achieved
2001	250	176	70.4%
2002	235	804	342.1%
2003	500	610	122.0%
2004	634	745	117.5%
2005	3,400	1,533	45.1%
2006	840	1,051	125.1%
2007	525	1,025	195.2%
2008	525	2,336	445.0%
2009	4,694	3,252	69.3%
2010	3,073		
2010 YTD (Aug)	3,073	4,362	141.9%
2010 YE Projected	3,073	4,962	161.5%
2011	3,985		

#### Goal - Installed kWh Savings (000's kWh)

Year	Goal	Actual	% of Goal Achieved
2001	62	75	121.0%
2002	58	1,216	2096.6%
2003	186	231	124.2%
2004	279	415	148.7%
2005	848	517	61.0%
2006	329	455	138.3%
2007	890	1,063	119.4%
2008	1,789	3,331	186.2%
2009	7,404	2,515	34.0%
2010	4,661		
2010 YTD (Aug)	4,661	3,724	79.9%
2010 YE Projected	4,661	4,800	103.0%
2011	4,057		

#### Goal - Installed kW Savings

Year	Goal	Actual	% of Goal Achieved
2001	-	-	0.0%
2002	-	-	0.0%
2003	345	368	106.7%
2004	491	728	148.3%
2005	1,490	1,061	71.2%
2006	595	631	106.1%
2007	528	414	78.4%
2008	1,181	933	79.0%
2009	1,873	984	52.5%
2010	682		
2010 YTD (Aug)	682	1,033	151.5%
2010 YE Projected	682	1,175	172.3%
2011	828		

#### Goal - Lifetime kWh Savings (000's kWh)

Year	Goal	Actual	% of Goal Achieved
2001	932	1,125	120.7%
2002	876	18,240	2082.2%
2003	3,534	4,389	124.2%
2004	5,108	7,839	153.5%
2005	11,076	8,264	74.6%
2006	5,906	5,866	99.3%
2007	9,731	11,997	123.3%
2008	26,767	33,731	126.0%
2009	56,025	31,331	55.9%
2010	45,051		
2010 YTD (Aug)	45,051	35,067	77.8%
2010 YE Projected	45,051	39,891	88.5%
2011	42,691		

#### Program Ratios

Year	\$/kWh Target	Actual	\$/LT kWh Target	Actual	\$/kW Target	Actual	Cost/ Unit
2001	\$1.677	\$3.053	\$0.112	\$0.204	\$0	\$0	\$1,301
2002	\$4.276	\$0.235	\$0.283	\$0.016	\$0	\$0	\$356
2003	\$1.968	\$1.160	\$0.104	\$0.061	\$1,061	\$728	\$439
2004	\$1.842	\$1.019	\$0.101	\$0.054	\$1,047	\$581	\$568
2005	\$1.229	\$1.302	\$0.094	\$0.081	\$699	\$634	\$439
2006	\$2.264	\$1.723	\$0.126	\$0.134	\$1,252	\$1,242	\$746
2007	\$1.137	\$1.015	\$0.104	\$0.090	\$1,917	\$2,606	\$1,053
2008	\$1.055	\$0.621	\$0.070	\$0.061	\$1,598	\$2,215	\$885
2009	\$0.681	\$1.229	\$0.087	\$0.099	\$2,611	\$3,140	\$950
2010	\$0.621		\$0.064		\$4,246		
2010 YTD (Aug)	\$0.621	\$1.046	\$0.064	\$0.111	\$4,246	\$3,773	\$893
2010 YE Projected	\$0.621	\$0.827	\$0.064	\$0.100	\$4,246	\$3,380	\$800
2011	\$0.641		\$0.061		\$3,143		

#### Notes

- Starting in 2007 Home Energy Solutions included HVAC program Residential Loan Program
- Starting in 2009 Home Energy Solutions includes Residential Loan Program

# The United Illuminating Company

## LF-26 Standard Filing Requirement

### Program Notes - Home Energy Solutions

#### Budget/FTE:

2.3 FTE for contractor relations/field support, contract administration and data/financial administration

#### Goal:

Program assumptions include 650 14.5 SEER and 12 EER, and higher 25 Ductless Heat pumps (replace electric resistance heat) and 3,985 comprehensive in-home services participants.

Within the in-home services modeling assumptions included CFLs, air and duct sealing diagnostics, and DHW measures.

81% gas customers, 13% deliverable fuels. Appliance incentives for refrigerators, freezers, clothes washers and dehumidifiers and insulation upgrade incentive.

#### Cost/kWh (Cost/Unit):

Cost rates increased in 2010 based on increase of deliverable fuel homes served. Cost rates will reduced as add-on measures adoption increases

#### Goal Setting Methodology

Goals are based on measure mix and historical measure installation quantities. Production levels based on available funds.

PA 07-702 Central A/C mandated rebates influences program design and goals

#### Metric Changes:

Codes and Standards

Develop vendor delisting protocol in the goal of increasing participant savings by 25%

**YGS Standard Filing Requirement**

**Home Energy Solutions**

<b>Budget Projections</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD(Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Budget</b>	
Labor	\$ 22,989	\$ 47,180	\$ 68,131	\$ 105,027	\$ 115,000	\$ 85,729	\$ 128,594	\$ 281,960	
Outside Service	\$ 30,474	\$ 158,176	\$ 276,457	\$ 90,936	\$ 331,700	\$ 131,191	\$ 196,786	\$ 520,960	
Materials & Supplies	\$ 424	\$ -	\$ 2,137	\$ 651	\$ 3,000	\$ 89	\$ 133	\$ 4,800	
Incentives	\$ 37,466	\$ 293,384	\$ 438,638	\$ 268,686	\$ 531,800	\$ 461,147	\$ 636,720	\$ 762,680	
Marketing	\$ 3,173	\$ 11,560	\$ 9,650	\$ 49,383	\$ 15,000	\$ 19,448	\$ 29,173	\$ 24,000	
Administrative Expense	\$ 290	\$ 101	\$ 1,033	\$ 1,033	\$ 3,500	\$ 4,451	\$ 6,676	\$ 5,600	
<b>Total</b>	<b>\$ 94,816</b>	<b>\$ 510,401</b>	<b>\$ 796,046</b>	<b>\$ 515,716</b>	<b>\$ 1,000,000</b>	<b>\$ 702,055</b>	<b>\$ 998,082</b>	<b>\$ 1,600,000</b>	a

<b>Energy Savings Information</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Goal</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goals</b>	
Annual Energy Savings (ccf Reduction Goal)	11,295	86,333	98,698	55,728	182,022	115,504	164,207	243,065	b
Lifetime Energy Savings (ccf Reduction Goal)	213,599	1,324,880	1,770,065	1,172,933	3,776,878	2,477,239	3,521,788	4,532,590	c
Annual Cost Rate (\$/ccf)	\$ 8.39	\$ 5.91	\$ 8.07	\$ 9.25	\$ 5.49	\$ 6.08	\$ 6.08	\$ 6.58	d=a/b
Lifetime Cost Rate (\$/ccf)	\$ 0.44	\$ 0.39	\$ 0.45	\$ 0.44	\$ 0.26	\$ 0.28	\$ 0.28	\$ 0.35	e=a/c
Total Gas Benefit	\$ 157,867	\$ 970,085	\$ 1,448,317	\$ 1,054,775	\$ 4,060,518	\$ 2,663,277	\$ 3,786,270	\$ 3,890,819	f
Total Gas System Benefit-Cost Ratio	\$ 1.66	\$ 1.90	\$ 1.82	\$ 2.05	\$ 4.06	\$ 3.79	\$ 3.79	\$ 2.43	g=f/a
Homes Served	393	1,351	1,824	798	2,799	1,489	2,117	2,082	h
Lifetime Savings per Home (ccf)	544	981	970	1,470	1,349	1,664	1,664	2,177	i=c/h
Program Cost per Home	\$ 241	\$ 378	\$ 436	\$ 646	\$ 357	\$ 471	\$ 471	\$ 768	k=a/h
Benefit per Home	\$ 402	\$ 718	\$ 794	\$ 1,322	\$ 1,451	\$ 1,789	\$ 1,789	\$ 1,868	l=f/h

**Program Costs**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	\$ 599,097	\$ 94,816	16%
2007	\$ 600,000	\$ 510,401	85%
2008	\$ 600,000	\$ 796,046	133%
2009	\$ 1,000,000	\$ 515,716	52%
2010 YTD (Aug)	n/a	\$ 702,055	-
2010 YE projection	\$ 1,000,000	\$ 998,082	100%
2011	\$ 1,600,000	n/a	-

**Goal - Participation/Units**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	1,378	393	29%
2007	1,524	988	65%
2008	1,554	1,824	117%
2009	2,554	798	31%
2010 YTD (Aug)	n/a	1,489	-
2010 YE projection	2,799	2,117	76%
2011	2,082	n/a	-

**Goal - Annual ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	110,445	11,295	10%
2007	65,898	57,353	87%
2008	90,954	98,698	109%
2009	176,982	55,728	31%
2010 YTD (Aug)	n/a	115,504	-
2010 YE projection	182,022	164,207	90%
2011	243,065	n/a	-

**Goal - Lifetime ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	1,988,010	213,599	11%
2007	1,551,974	902,646	58%
2008	1,524,912	1,770,065	116%
2009	3,462,230	1,172,933	34%
2010 YTD (Aug)	n/a	2,477,239	-
2010 YE projection	3,776,878	3,521,788	93%
2011	4,532,590	n/a	-

**CNG Standard Filing Requirement**

**Home Energy Solutions**

<b>Budget Projections</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD(Aug)</b>	<b>2010 YE Projection *</b>	<b>2011 Budget</b>
Labor	\$ 5,183	\$ 44,643	\$ 73,633	\$ 87,082	\$ 90,000	\$ 70,113	\$ 105,170	\$ 255,360
Outside Service	\$ 15,732	\$ 119,469	\$ 269,945	\$ 108,035	\$ 240,000	\$ 142,346	\$ 213,037	\$ 517,855
Materials & Supplies	\$ -	\$ -	\$ 268	\$ 231	\$ 2,000	\$ 45	\$ 68	\$ 4,320
Incentives	\$ 30,156	\$ 255,330	\$ 443,899	\$ 313,741	\$ 360,000	\$ 565,186	\$ 657,835	\$ 705,230
Marketing	\$ 967	\$ 7,140	\$ 7,109	\$ 10,307	\$ 5,000	\$ 11,914	\$ 17,871	\$ 10,755
Administrative Expense	\$ -	\$ 960	\$ 361	\$ 235	\$ 3,000	\$ 3,382	\$ 5,074	\$ 6,480
<b>Total</b>	<b>\$ 52,038</b>	<b>\$ 427,542</b>	<b>\$ 795,216</b>	<b>\$ 519,631</b>	<b>\$ 700,000</b>	<b>\$ 792,988</b>	<b>\$ 999,055 *</b>	<b>\$ 1,500,000</b> a

<b>Energy Savings Information</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Goals</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goals</b>
Annual Energy Savings (ccf Reduction Goal)	14163	57,353	104,456	68,203	123,219	131,380	165,521	231,251 b
Lifetime Energy Savings (ccf Reduction Goal)	213599	902,646	1,970,690	1,418,819	2,556,743	2,691,768	3,391,255	4,325,856 c
Annual Cost Rate (\$/ccf)	\$ 3.67	\$ 7.45	\$ 7.61	\$ 7.62	\$ 5.68	\$ 6.04	\$ 6.04	\$ 6.49 d=a/b
Lifetime Cost Rate (\$/ccf)	\$ 0.24	\$ 0.47	\$ 0.40	\$ 0.37	\$ 0.27	\$ 0.29	\$ 0.29	\$ 0.35 e=a/c
Total Gas Benefit	\$ 166,163	\$ 660,923	\$ 1,017,119	\$ 1,275,891	\$ 2,748,752	\$ 2,893,917	\$ 3,645,935	\$ 3,708,881 f
Total Gas System Benefit-Cost Ratio	\$ 3.19	\$ 1.55	\$ 1.28	\$ 2.46	\$ 3.93	\$ 3.65	\$ 3.65	\$ 2.47 g=f/a
Homes Served	366	988	1,918	1,064	1,895	1,331	1,677	1,963 h
Lifetime Savings per Home (ccf)	584	914	1,027	1,333	1,349	2,022	2,022	2,204 i=c/h
Program Cost per Home	\$ 142	\$ 433	\$ 415	\$ 488	\$ 369	\$ 596	\$ 596	\$ 764 k=a/h
Benefit per Home	\$ 454	\$ 669	\$ 530	\$ 1,199	\$ 1,451	\$ 2,174	\$ 2,174	\$ 1,889 l=f/h

**Program Costs**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	\$ 430,651	\$ 52,038	12%
2007	\$ 430,000	\$ 427,542	99%
2008	\$ 430,000	\$ 795,216	185%
2009	\$ 700,000	\$ 519,631	74%
2010 YTD (Aug)	n/a	\$ 792,988	-
2010 YE projection	\$ 700,000	\$ 999,055	143%
2011	\$ 1,500,000	n/a	-

**Goal - Participation/Units**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	957	366	38%
2007	1,070	988	92%
2008	1,092	1,918	176%
2009	1,740	1,064	61%
2010 YTD (Aug)	n/a	1,331	-
2010 YE projection	1895	1,677	88%
2011	1,963	n/a	-

**Goal - Annual ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	76,687	14,163	18%
2007	46,279	57,353	124%
2008	59,495	104,456	176%
2009	120,531	68,203	57%
2010 YTD (Aug)	n/a	131,380	-
2010 YE projection	123,219	165,521	134%
2011	231,251	n/a	-

**Goal - Lifetime ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	1,380,365	213,599	15%
2007	1,089,915	902,646	83%
2008	1,070,910	1,970,690	184%
2009	2,357,898	1,418,819	60%
2010 YTD (Aug)	n/a	2,691,768	-
2010 YE projection	2,556,743	3,391,255	133%
2011	4,325,856	n/a	-

\*Home Energy Solutions for CNG overspending will be utilizing funds from ARRA (stimulus).

**SCG Standard Filing Requirement**

**Home Energy Solutions**

<b>Budget Projections</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD(Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Budget</b>	
Labor	\$ 1,845	\$ 37,628	\$ 44,337	\$ 62,391	\$ 90,000	\$ 49,472	\$ 74,209	\$ 255,360	
Outside Service	\$ 12,469	\$ 18,076	\$ 41,194	\$ 59,660	\$ 240,000	\$ 37,886	\$ 56,829	\$ 514,350	
Materials & Supplies	\$ 184	\$ -	\$ 214	\$ 218	\$ 2,000	\$ 41	\$ 62	\$ 4,350	
Incentives	\$ 26,456	\$ 133,150	\$ 580,208	\$ 410,760	\$ 360,000	\$ 861,648	\$ 857,354	\$ 708,950	
Marketing	\$ 369	\$ 3,475	\$ 4,195	\$ 7,075	\$ 5,000	\$ 1,891	\$ 2,836	\$ 10,540	
Administrative Expense	\$ 184	\$ 448	\$ 293	\$ 184	\$ 3,000	\$ 3,376	\$ 5,063	\$ 6,450	
Total	\$ 41,507	\$ 192,777	\$ 670,440	\$ 540,288	\$ 700,000	\$ 964,314	996,353	\$ 1,500,000	a

<b>Energy Savings Information</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Goals</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goals</b>	
Annual Energy Savings (ccf Reduction Goal)	14,238	31,695	159,470	176,102	123,219	254,812	266,037	232,898	b
Lifetime Energy Savings (ccf Reduction Goal)	280,421	512,586	2,792,634	3,239,380	2,556,743	4,213,595	4,399,210	3,780,021	c
Annual Cost Rate (\$/ccf)	\$ 2.92	\$ 6.08	\$ 4.20	\$ 3.07	\$ 5.68	\$ 3.75	\$ 3.75	\$ 6.44	d=a/b
Lifetime Cost Rate (\$/ccf)	\$ 0.15	\$ 0.38	\$ 0.24	\$ 0.17	\$ 0.27	\$ 0.23	\$ 0.23	\$ 0.40	e=a/c
Total Gas Benefit	\$ 206,809	\$ 375,319	\$ 1,070,385	\$ 2,913,053	\$ 2,748,752	\$ 4,530,032	\$ 4,729,587	\$ 3,342,238	f
Total Gas System Benefit-Cost Ratio	\$ 4.98	\$ 1.95	\$ 1.60	\$ 5.39	\$ 3.93	\$ 4.75	\$ 4.75	\$ 2.23	g=f/a
Homes Served	88	430	1,149	1,421	1,895	2,409	2,515	2,006	h
Lifetime Savings per Home (ccf)	3,187	1,192	2,430	2,280	1,349	1,749	1,749	1,885	i=c/h
Program Cost per Home	\$ 472	\$ 448	\$ 583	\$ 380	\$ 369	\$ 396	\$ 396	\$ 748	k=a/h
Benefit per Home	\$ 2,350	\$ 873	\$ 932	\$ 2,050	\$ 1,451	\$ 1,880	\$ 1,880	\$ 1,666	l=f/h

**Program Costs**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	\$ 449,651	\$ 41,507	9%
2007	\$ 450,000	\$ 192,777	43%
2008	\$ 450,000	\$ 670,440	149%
2009	\$ 700,000	\$ 540,288	77%
2010 YTD (Aug)	n/a	\$ 954,314	-
2010 YE projection	\$ 700,000	\$ 996,353	142%
2011	\$1,500,000	n/a	-

**Goal - Participation/Units**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	1,004	88	9%
2007	1,127	430	38%
2008	1,149	1,870	163%
2009	1,740	1,421	82%
2010 YTD (Aug)	n/a	2,409	-
2010 YE projection	1,895	2,515	133%
2011	2,006	n/a	-

**Goal - Annual ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	80,495	14,238	18%
2007	48,702	31,695	65%
2008	62,611	159,470	255%
2009	120,531	176,102	146%
2010 YTD (Aug)	n/a	254,812	-
2010 YE projection	123,219	266,037	216%
2011	232,898	n/a	-

**Goal - Lifetime ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	1,448,905	280,421	19%
2007	1,146,993	512,586	45%
2008	1,126,993	2,792,634	248%
2009	2,357,898	3,239,380	137%
2010 YTD (Aug)	n/a	4,213,595	-
2010 YE projection	2,556,743	4,399,210	172%
2011	3,780,021	n/a	-

## CL&P Standard Filing Requirement

### HES Income Eligible

All dollar values are in \$000

<u>Budget Projections</u>	<u>2008 Actuals</u>	<u>2009 Actuals</u>	<u>Revised 2010 Budget</u>	<u>2010 YTD (Aug)</u>	<u>2010 YE Projected</u>	<u>2011 Budget</u>	<u>2012 Budget</u>
Labor:							
NU Labor	\$ 529	\$ 420	\$800	\$ 343	\$ 514	\$ 911	\$ 911
Contractor Staff	\$ 36	\$ 40	\$ 288	\$ 36	\$ 53	\$ -	\$ -
Total Labor	\$ 565	\$ 459	\$ 1,088	\$ 378	\$ 567	\$ 911	\$ 911
Material & Supply	\$ 1	\$ 5	\$ 30	\$ 3	\$ 4	\$ 30	\$ 22
Outside Service	\$ 432	\$ 424	\$ 810	a) \$ 265	\$ 500	\$ 1,150	a) \$ 855
Incentives	\$ 5,989	\$ 6,827	\$ 9,034	\$ 5,323	\$ 8,620	\$ 8,043	\$ 5,983
Marketing	\$ 22	\$ 20	\$ 300	\$ 58	\$ 87	\$ 275	\$ 200
Administrative Expense	\$ 21	\$ 12	\$ 78	b) \$ 8	\$ 12	\$ 68	b) \$ 49
Other	\$ 6	\$ 11	\$ 60	\$ 6	\$ 9	\$ 50	\$ 36
Total	\$ 7,036	\$ 7,758	\$ 11,400	\$ 6,041	\$ 9,799	\$ 10,527	\$ 8,057

a) Actual materials and labor done by Community Action Agencies and/or vendor.

b) Employee expenses including mileage, training, conference attendance and misc.

### 2011 Goals and Metrics Information

Demand Savings (kW reduction Goal) 1,677.1  
 Annual Energy Savings (KWh Reduction Goal) 16,734,418  
 Lifetime Energy Savings (kWh Reduction Goal) 130,345,284

Annual Cost Rate (\$/kWh) \$ 0.629  
 Lifetime Cost Rate (\$/kWh) \$ 0.081

Electric b/c Ratio 1.25  
 Total Resource b/c Ratio 2.54

## CL&P Standard Filing Requirement

### HES Income Eligible

Year	Budget	Program Costs		Cost/participant	\$/LT-kWh
		Actual	% of Budget		
2000	\$ 5,000,000	\$ 4,406,000	88%	\$653	0.042
2001	\$ 5,000,000	\$ 5,036,000	101%	\$754	0.040
2002	\$ 4,420,000	\$ 4,716,000	107%	\$783	0.033
2003	\$ 4,024,000	\$ 3,181,815	79%	\$864	0.038
2004	\$ 4,250,000	\$ 4,590,734	108%	\$524	0.034
2005 Revised	\$ 5,891,143	\$ 4,682,547	79%	\$477	0.044
2006 Revised	\$ 5,850,000	\$ 5,298,638	91%	\$506	0.050
2007 Revised	\$ 6,000,000	\$ 7,112,363	117%	\$626	0.064
2008 Revised	\$ 7,575,094	\$ 7,035,693	93%	\$828	0.061
2009 Revised	\$ 9,005,048	\$ 7,758,362	86%	\$755	0.069
2010 Revised	\$ 11,399,500	n/a	n/a	n/a	n/a
2010 YTD (Aug)	n/a	\$ 6,041,090	53%	\$870	0.111
2010 Y/E Projected	n/a	\$ 9,799,155	86%	\$941	0.105
2011	\$ 10,527,050	n/a	n/a	n/a	n/a

Year	Goal - Participation		
	Goal	Actual	% of Goal
2000	6,000	6,749	112%
2001	5,866	6,675	114%
2002	4,900	6,022	123%
2003	6,094	3,683	60%
2004	6,694	8,765	131%
2005 Revised	7,517	9,818	131%
2006 Revised	10,192	10,481	103%
2007 Revised	10,636	11,244	106%
2008 Revised	14,509	8,501	59%
2009 Revised	14,038	10,282	73%
2010 Revised	16,566	n/a	n/a
2010 YTD (Aug)	n/a	6,943	42%
2010 Y/E Projected	n/a	10,415	63%
2011	14,471	n/a	n/a

Goal - Lifetime MWh savings				Goal - Installed kW Savings			
Year	Budget	Actual	% of Budget	Year	Goal	Actual	% of Goal
2000	160,261	104,812	65%	2000	n/a	n/a	n/a
2001	107,844	125,527	116%	2001	n/a	n/a	n/a
2002	86,326	144,198	167%	2002	n/a	n/a	n/a
2003	101,614	84,526	83%	2003	531	427	80.4%
2004	115,905	135,997	117%	2004	626	652	104.2%
2005 Revised	113,022	107,224	95%	2005 Revised	828	806	97.3%
2006 Revised	88,603	105,089	119%	2006 Budget	1,299	1,110	85.4%
2007 Revised	94,961	109,864	116%	2007 Revised	1,442	1,067	74.0%
2008 Revised	149,518	115,014	77%	2008 Revised	1,521	1,271	83.6%
2009 Revised	147,661	111,730	76%	2009 Revised	1,455	1,172	80.6%
2010 Revised	128,657	n/a	n/a	2010 Revised	1,832	n/a	n/a
2010 YTD (Aug)	n/a	54,185	42%	2010 YTD (Aug)	n/a	967	52.8%
2010 Y/E Projected	n/a	93,570	73%	2010 Y/E Projected	n/a	1,531	83.6%
2011	130,345	n/a	n/a	2011	1,677	n/a	n/a

### HES Income Eligible

Year	Program Ratios			
	\$ / Lifetime kWh		\$ / Annualized kW	
	Plan	Actual	Plan	Actual
2000	0.031	0.042	n/a	8407
2001	0.046	0.040	n/a	6375
2002	0.051	0.033	n/a	7,452
2003	0.039	0.038	8,176	7,452
2004	0.037 <sup>1</sup>	0.034	6,790	7,041
2005 Revised	0.052	0.044	7,115	5,811
2006 Revised	0.066	0.050	4,503	4,774
2007 Revised	0.063	0.065	4,161	6,664
2008 Revised	0.051	0.061	4,980	5,536
2009 Revised	0.061	0.069	6,790	6,618
2010 Revised	0.089	n/a	6,224	n/a
2010 YTD (Aug)	n/a	0.111	n/a	6,250
2010 Y/E Projected	n/a	0.105	n/a	6,400
2011	0.081	n/a	6,277	n/a

## CL&P Standard Filing Requirement

### CL&P Program Notes

Budget/FTE

6.9

FTE for program administration, vendor interaction, sales and field support.

Goal

14,471

Customers Served

Cost/Unit

\$727

Average cost per customer.

Goal Setting Methodology

Goal was based on available dollars and average cost per customer.

Metric Changes

None

**The United Illuminating Company**  
**EL-25 Standard Filing Requirement**  
**2011**

HES Income Eligible

**Baseline Assumptions:**

Market

Residential customers on limited and fixed income < 60% State Median Income

<b><u>Budget Projections</u></b>	<b>2010</b>		<b>2010</b>	<b>2010</b>	<b><u>2011 Bud</u></b>	<b><u>2012 Bud</u></b>
	<b><u>2009 Act</u></b>	<b><u>Revised Bud</u></b>	<b><u>YTD (Aug)</u></b>	<b><u>YE Projected</u></b>		
Labor						
UI Labor	\$ 142,135	\$ 153,346	\$ 102,672	\$ 153,346	\$ 185,551 a)	\$ 194,829
Contractor Staff	\$ -	\$ 45,000	\$ -	\$ -	\$ - b)	\$ -
Total Labor	\$ 142,135	\$ 198,346	\$ 102,672	\$ 153,346	\$ 185,551	\$ 194,829
Materials & Supplies	\$ 21,994	\$ 15,691	\$ 11,600	\$ 15,691	\$ 15,691 c)	\$ 15,691
Outside Services	\$ 260,317	\$ 217,703	\$ 3,183	\$ 262,703	\$ 114,153 d)	\$ 114,153
Incentives	\$ 2,927,914	\$ 2,969,075	\$ 2,145,446	\$ 2,969,075	\$ 2,041,045 e)	\$ 1,418,497
Marketing	\$ 88,060	\$ 35,000	\$ 27,639	\$ 35,000	\$ 35,000 f)	\$ 25,000
Other	\$ 5,000	\$ -	\$ -	\$ -	\$ - g)	\$ -
Administrative Expenses	\$ 2,633	\$ 8,317	\$ 2,256	\$ 8,317	\$ 7,556 h)	\$ 7,398
<b>Total</b>	<b>\$ 3,448,053</b>	<b>\$ 3,444,132</b>	<b>\$ 2,292,796</b>	<b>\$ 3,444,132</b>	<b>\$ 2,398,996</b>	<b>\$ 1,775,568</b>

- a) 1.55 FTEs
- b) No comment
- c) Printing of Program forms and educational materials
- d) Services for 57 new construction units, 3,422 in-home services
- e) Incentives for 57 new construction units, 3,422 in-home services  
incl. appliance replacements refrigerators, ductless heatpumps, and dehumidifiers replacements
- f) Brochure revision, select advertising, public relations, etc.
- g) No comment
- h) Meals, miles, travel and training

**Goals and Metrics Information:**

**Savings**

Demand Savings (kW)	<b>2011</b> 254
Annual Energy Savings (kWh)	3,517,383
Lifetime Energy Savings (kWh)	39,133,248
Annual Cost Rate (\$/kWh)	\$ 0.682
Lifetime Cost Rate (\$/kWh)	\$ 0.061
Cost per kW	\$ 9,447
Electric System B/C Ratio	1.38
Total Resource B/C Ratio	2.48

**The United Illuminating Company  
LF-26 Standard Filing Requirement**

HES Income Eligible

Goal - Program Costs (000's)

Year	Budget	Actual	% of Goal Achieved
2000	\$1,542	\$1,795	116.4%
2001	\$1,519	\$1,500	98.7%
2002	\$1,235	\$1,168	94.6%
2003	\$1,117	\$799	71.5%
2004	\$773	\$803	103.9%
2005	\$1,473	\$1,086	73.7%
2006	\$1,328	\$1,250	94.1%
2007	\$1,224	\$1,107	90.4%
2008	\$1,558	\$939	60.3%
2009	\$3,125	\$3,448	110.3%
2010	\$3,444		
2010 YTD (Aug)	\$3,444	\$2,293	66.6%
2010 YE Projected	\$3,444	\$3,444	100.0%
2011	\$2,399		

Goal - Number of Customers Served

Year	Goal	Actual	% of Goal Achieved
2000	4,859	6,452	132.8%
2001	6,500	7,720	118.8%
2002	5,000	7,078	141.6%
2003	7,204	5,377	74.6%
2004	4,300	4,722	109.8%
2005	6,500	8,603	132.4%
2006	6,500	6,116	94.1%
2007	5,200	3,660	70.4%
2008	4,200	2,692	64.1%
2009	7,924	4,850	61.2%
2010	4,400		
2010 YTD (Aug)	4,400	3,077	69.9%
2010 YE Projected	4,400	3,477	79.0%
2011	3,422		

Goal - Installed kWh Savings (000's kWh)

Year	Goal	Actual	% of Goal Achieved
2000	4,000	5,097	127.4%
2001	5,135	6,086	118.5%
2002	3,877	5,550	143.2%
2003	3,601	2,779	77.2%
2004	2,954	4,053	137.2%
2005	4,327	5,130	118.6%
2006	4,248	4,785	112.6%
2007	3,822	3,498	91.5%
2008	3,822	2,511	65.7%
2009	7,675	3,122	40.7%
2010	6,906		
2010 YTD (Aug)	6,906	3,019	43.7%
2010 YE Projected	6,906	3,411	49.4%
2011	3,517		

Goal - Installed kW Savings

Year	Goal	Actual	% of Goal Achieved
2000	-	-	0.0%
2001	-	-	0.0%
2002	-	-	0.0%
2003	292	283	96.9%
2004	253	294	116.2%
2005	444	416	93.7%
2006	458	474	103.5%
2007	360	338	93.9%
2008	409	229	56.0%
2009	715	277	38.7%
2010	353		
2010 YTD (Aug)	353	224	63.5%
2010 YE Projected	353	253	71.7%
2011	254		

Goal - Lifetime kWh Savings (000's kWh)

Year	Goal	Actual	% of Goal Achieved
2000	40,027	50,971	127.3%
2001	51,350	60,860	118.5%
2002	38,773	55,500	143.1%
2003	31,597	24,412	77.3%
2004	14,700	17,352	118.0%
2005	15,631	36,581	234.0%
2006	31,969	36,749	115.0%
2007	28,126	32,294	114.8%
2008	29,528	20,676	70.0%
2009	56,704	24,879	43.9%
2010	81,275		
2010 YTD (Aug)	81,275	30,965	38.1%
2010 YE Projected	81,275	34,990	43.1%
2011	39,133		

Program Ratios

Year	\$/kWh Target	Actual	\$/LT kWh Target	Actual	\$/kW Target	Actual	Cost/ Customer
2000	\$0.386	\$0.352	\$0.039	\$0.035	\$0	\$0	\$278
2001	\$0.296	\$0.246	\$0.030	\$0.025	\$0	\$0	\$194
2002	\$0.319	\$0.210	\$0.032	\$0.021	\$0	\$0	\$165
2003	\$0.310	\$0.288	\$0.035	\$0.033	\$3,825	\$2,823	\$155
2004	\$0.262	\$0.198	\$0.053	\$0.046	\$3,055	\$2,731	\$170
2005	\$0.340	\$0.212	\$0.094	\$0.030	\$3,318	\$2,611	\$126
2006	\$0.313	\$0.261	\$0.042	\$0.034	\$2,900	\$2,638	\$204
2007	\$0.320	\$0.316	\$0.044	\$0.034	\$3,400	\$3,275	\$302
2008	\$0.408	\$0.374	\$0.053	\$0.045	\$3,809	\$4,100	\$349
2009	\$0.407	\$1.104	\$0.055	\$0.139	\$4,371	\$12,448	\$711
2010	\$0.499		\$0.042		\$9,756		
2010 YTD (Aug)	\$0.499	\$0.759	\$0.042	\$0.074	\$9,756	\$10,236	\$745
2010 YE Projected	\$0.499	\$1.010	\$0.042	\$0.098	\$9,756	\$13,613	\$991
2011	\$0.682		\$0.061		\$9,447		

# The United Illuminating Company

## LF-26 Standard Filing Requirement

### Program Notes - HES Income Eligible

#### Budget/FTE:

1.55 FTE to provide direct contact with community outreach, contract administration/vendor oversight, and financial/data administration

#### Goal:

Program is designed around 3,422 existing homes and 57 new construction units plus appliance replacement refrigerators, dehumidifiers and ductless heatpumps

#### Cost/kWh (Unit/Cost):

Cost rates increased per customer increase of oil home participation and focus on comprehensive piggy back services with Gas Co.

Funding of non-electric measures in oil heated homes up to 25% of total budget for such measures

#### Goal Setting Methodology

Goal is driven program history, measure mix and historical installation quantities  
Production levels based on available funds.

#### Metric Changes

Cost share of projects with DOE/DSS Wx funds  
Training of vendors to meet BPI Building Analyst 1 requirements and advance duct sealing  
Promote emerging technology of DSHP and LED lighting

**YGS Standard Filing Requirement**

**HES Income Eligible Weatherization and Heating Systems**

<b>Budget Projections</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD(Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Budget</b>
Labor	\$ 39,223	\$ 70,812	\$ 74,616	\$ 85,041	\$ 80,000	\$ 75,849	113,774	\$ 168,910
Outside Services	\$ 28,379	\$ 32,610	\$ 72,802	\$ 36,830	\$ 92,766	\$ 33,636	85,618	\$ 93,120
Materials & Supplies	\$ 261	\$ -	\$ 331	\$ 607	\$ 2,325	\$ 590	1,390	\$ 2,340
Incentives	\$ 334,759	\$ 343,427	\$ 560,711	\$ 818,189	\$ 745,260	\$ 387,553	709,686	\$ 660,950
Marketing	\$ 1,284	\$ 26,453	\$ 2,944	\$ 7,403	\$ 2,906	\$ 6,570	9,854	\$ 2,925
Administrative Expense	\$ 543	\$ 196	\$ 1,398	\$ 3,672	\$ 1,744	\$ 3,116	4,674	\$ 1,755
<b>Total</b>	<b>\$ 404,449</b>	<b>\$ 473,498</b>	<b>\$ 712,802</b>	<b>\$ 951,742</b>	<b>\$ 925,000</b>	<b>\$ 507,314</b>	<b>\$ 924,995</b>	<b>\$ 930,000</b> a

<b>Energy Savings Information</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Goal</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goal</b>
Annual Energy Savings (ccf Reduction Goal)	45,734	101,407	94,054	195,280	142,173	125,684	188,526	156,774 b
Lifetime Energy Savings (ccf Reduction Goal)	941,555	1,396,219	1,617,301	3,534,308	2,536,750	1,638,903	2,458,355	2,394,163 c
Annual Cost Rate (\$/ccf)	\$ 8.84	\$ 4.67	\$ 7.58	\$ 4.97	\$ 6.51	\$ 4.04	\$ 4.91	\$ 5.93 d=a/b
Lifetime Cost Rate (\$/ccf)	\$ 0.43	\$ 0.34	\$ 0.44	\$ 0.27	\$ 0.36	\$ 0.31	\$ 0.38	\$ 0.39 e=a/c
Total Gas Benefit	\$ 664,294	\$ 835,829	\$ 987,487	\$ 3,423,553	\$ 2,835,240	\$ 1,831,746	\$ 2,747,619	\$ 2,169,027 f
Total Gas System Benefit-Cost Ratio	\$ 1.64	\$ 1.77	\$ 1.39	\$ 3.60	\$ 3.07	\$ 3.61	\$ 2.97	\$ 2.33 g=f/a
Homes Served	574	1,238	1,350	1,932	1,147	1,708	2562	1,779 h
Lifetime Savings per Home (ccf)	1,640	1,128	1,198	1,829	2,213	960	960	1,346 i=c/h
Program Cost per Home	\$ 705	\$ 382	\$ 528	\$ 493	\$ 807	\$ 297	\$ 361	\$ 523 k=a/h
Benefit per Home	\$ 1,157	\$ 675	\$ 731	\$ 1,772	\$ 2,473	\$ 1,072	\$ 1,072	\$ 1,219 l=f/h

**Program Costs**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	\$ 243,933	\$ 404,449	166%
2007	\$ 400,000	\$ 473,498	118%
2008	\$ 400,000	\$ 712,802	178%
2009	\$ 925,000	\$ 951,742	103%
2010 YTD (Aug)	n/a	\$ 507,314	-
2010 YE projection	\$ 925,000	\$ 924,995	100%
2011	\$ 930,000	n/a	-

**Goal - Participation/Units**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	301	574	191%
2007	660	1,238	188%
2008	1,225	1,350	110%
2009	1,659	1,932	116%
2010 YTD (Aug)	n/a	1,708	-
2010 YE projection	1,147	2,562	223%
2011	1,779	n/a	-

**Goal - Annual ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	35,150	45,734	130%
2007	56,432	101,407	180%
2008	74,675	94,054	126%
2009	104,320	195,280	187%
2010 YTD (Aug)	n/a	125,684	-
2010 YE projection	142,173	188,526	133%
2011	156,774	n/a	-

**Goal - Lifetime ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	572,388	941,555	164%
2007	1,172,876	1,396,219	119%
2008	970,771	1,617,301	167%
2009	1,599,520	3,534,308	221%
2010 YTD (Aug)	n/a	1,638,903	-
2010 YE projection	2,536,750	2,458,355	97%
2011	2,394,163	n/a	-

**CNG Standard Filing Requirement**

**HES Income Eligible Weatherization and Heating Systems**

<b>Budget Projections</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD(Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Budget</b>	
Labor	\$ 33,320	\$ 23,186	\$ 61,239	\$ 93,036	\$ 67,500	\$ 59,624	\$ 89,436	\$ 134,995	
Outside Service	\$ 151,163	\$ 26,824	\$ 26,903	\$ 30,860	\$ 72,346	\$ 36,921	\$ 37,921	\$ 79,332	
Materials & Supplies	\$ 2,397	\$ -	\$ 24	\$ -	\$ 2,451	\$ 394	\$ 591	\$ 2,800	
Incentives	\$ 251,308	\$ 332,058	\$ 340,635	\$ 540,010	\$ 553,893	\$ 562,045	\$ 563,895	\$ 604,485	
Marketing	\$ 3,596	\$ 19,105	\$ 1,751	\$ 1,738	\$ 1,838	\$ 5,313	\$ 7,969	\$ 2,080	
Administrative Expense	\$ 1,678	\$ 14	\$ 307	\$ 2	\$ 1,838	\$ 21	\$ 32	\$ 2,080	
<b>Total</b>	<b>\$ 443,462</b>	<b>\$ 401,187</b>	<b>\$ 430,859</b>	<b>\$ 665,645</b>	<b>\$ 699,866</b>	<b>\$ 664,318</b>	<b>\$ 699,843</b>	<b>\$ 825,772</b>	a

<b>Energy Savings Information</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Goal</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goal</b>	
Annual Energy Savings (ccf Reduction Goal)	43,949	62,141	66,843	135,579	105,666	153,497	230,246	134,146	b
Lifetime Energy Savings (ccf Reduction Goal)	904,811	961,680	889,992	2,160,620	1,885,367	2,370,685	3,556,028	2,180,736	c
Annual Cost Rate (\$/ccf)	\$ 10.09	\$ 6.46	\$ 6.45	\$ 4.91	\$ 6.62	\$ 4.33	\$ 3.04	\$ 6.16	d=a/b
Lifetime Cost Rate (\$/ccf)	\$ 0.49	\$ 0.42	\$ 0.48	\$ 0.31	\$ 0.37	\$ 0.28	\$ 0.20	\$ 0.38	e=a/c
Total Gas Benefit	\$ 638,367	\$ 712,183	912,488	\$2,092,912	\$ 2,107,210	2,649,634	3,974,451	\$ 1,993,137	f
Total Gas System Benefit-Cost Ratio	\$ 1.44	\$ 1.78	\$ 2.12	\$ 3.14	1.94	\$ 3.99	\$ 5.68	\$ 2.41	g=f/a
Homes Served	582	531	963	1,492	852	1,364	2,046	1,235	h
Lifetime Savings per Home (ccf)	1,555	1,811	924	1,448	2,213	1,738	1,738	1,765	i=c/h
Program Cost per Home	\$ 762	\$ 756	\$ 447	\$ 446	\$ 821	\$ 487	\$ 342	\$ 668	k=a/h
Benefit per Home	\$ 1,097	\$ 1,341	\$ 948	\$ 1,403	\$ 2,473	\$ 1,943	\$ 1,943	\$ 1,613	l=f/h

**Program Costs**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	\$ 265,000	\$ 443,462	167%
2007	\$ 370,000	\$ 401,187	108%
2008	\$ 385,000	\$ 430,859	112%
2009	\$ 570,000	\$ 665,645	117%
2010 YTD (Aug)	n/a	\$ 664,318	-
2010 YE Projection	\$ 699,867	\$ 699,843	100%
2011 Goal	\$ 825,772	n/a	-

**Goal - Participation/Units**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	333	582	175%
2007	610	531	87%
2008	1,132	963	85%
2009	1,185	1,492	126%
2010 YTD (Aug)	n/a	1,364	-
2010 YE Projection	852	2,046	240%
2011 Goal	1,235	n/a	-

**Goal - Annual ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	38,869	43,949	113%
2007	52,146	62,141	119%
2008	69,003	66,843	97%
2009	74,514	135,579	182%
2010 YTD (Aug)	n/a	153,497	-
2010 YE Projection	105,666	230,246	218%
2011 Goal	134,146	n/a	-

**Goal - Lifetime ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	632,949	904,811	143%
2007	1,042,922	961,680	92%
2008	897,042	889,992	99%
2009	1,142,515	2,160,620	189%
2010 YTD (Aug)	n/a	2,370,685	-
2010 YE Projection	1,885,367	3,556,028	189%
2011 Goal	2,180,736	n/a	-

**SCG Standard Filing Requirement**

**HES Income Eligible Weatherization and Heating Systems**

<b>Budget Projections</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD(Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Budget</b>	
Labor	\$ 19,494	\$ 27,200	\$ 12,629	\$ 11,950	\$ 67,500	\$ 7,189	\$ 10,783	\$ 134,995	
Outside Service	\$ 85,169	\$ 118,376	\$ -	\$ 308	\$ 72,377	\$ 590	\$ 885	\$ 87,903	
Materials & Supplies	\$ 1,433	\$ -	\$ 24	\$ -	\$ 2,451	\$ 107	\$ 160	\$ 3,240	
Incentives	\$ 141,593	\$ 197,564	\$ 478,618	\$ 1,335,251	\$ 554,565	\$ 726,031	\$ 737,419	\$ 694,805	
Marketing	\$ 2,150	\$ 796	\$ 674	\$ 2,366	\$ 1,838	\$ 491	\$ 737	\$ 2,430	
Administrative Expense	\$ 1,003	\$ 7	\$ 107	\$ -	\$ 1,838	\$ 11	\$ 16	\$ 2,430	
<b>Total</b>	<b>\$ 250,842</b>	<b>\$ 343,943</b>	<b>\$ 492,052</b>	<b>\$ 1,349,874</b>	<b>\$ 700,569</b>	<b>\$ 734,419</b>	<b>\$ 750,000</b>	<b>\$ 925,803</b>	<b>a</b>

<b>Energy Savings Information</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Goals</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goals</b>	
Annual Energy Savings (ccf Reduction Goal)	34,052	71,551	87,541	462,617	105,631	501,359	511,996	168,213	b
Lifetime Energy Savings (ccf Reduction Goal)	579,135	975,607	956,898	7,964,615	1,884,754	3,103,409	3,169,251	2,765,352	c
Annual Cost Rate (\$/ccf)	\$ 7.37	\$ 4.81	\$ 5.62	\$ 0.17	\$ 6.63	\$ 1.46	\$ 1.46	\$ 5.50	d=a/b
Lifetime Cost Rate (\$/ccf)	\$ 0.43	\$ 0.35	\$ 0.51	\$ 2.92	\$ 0.37	\$ 0.24	\$ 0.24	\$ 0.33	e=a/c
Total Gas Benefit	\$ 438,322	\$ 722,497	\$ 727,728	\$ 7,715,026	\$ 2,106,526	\$ 3,468,575	\$ 3,542,164	\$ 2,411,905	f
Total Gas System Benefit-Cost Ratio	\$ 1.75	\$ 2.10	\$ 1.48	\$ 5.72	\$ 3.01	\$ 4.72	\$ 4.72	\$ 2.61	g=f/a
Homes Served	253	545	1,910	3,511	852	1,915	1,956	1,483	h
Lifetime Savings per Home (ccf)	2,289	1,790	501	132	2,212	1,621	1,621	1,865	i=c/h
Program Cost per Home	\$ 991	\$ 631	\$ 258	\$ 384	\$ 822	\$ 384	\$ 384	\$ 624	k=a/h
Benefit per Home	\$ 1,732	\$ 1,326	\$ 381	\$ 2,197	\$ 2,472	\$ 1,811	\$ 1,811	\$ 1,627	l=f/h

**Program Costs**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	\$ 251,934	\$ 250,843	100%
2007	\$ 350,000	\$ 343,943	98%
2008	\$ 365,000	\$ 492,052	135%
2009	\$ 570,000	\$ 1,349,874	237%
2010 YTD (Aug)	n/a	\$ 734,419	-
2010 YE Projection	\$ 700,569	\$ 750,000	107%
2011 Goal	\$ 925,803	n/a	-

**Goal - Participation/Units**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	313	253	81%
2007	574	545	95%
2008	1,067	1,910	179%
2009	1,185	3,511	296%
2010 YTD (Aug)	n/a	1,915	-
2010 YE Projection	852	1,956	230%
2011 Goal	1,483	n/a	-

**Goal - Annual ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	36,503	34,052	93%
2007	49,134	71,551	146%
2008	65,017	87,541	135%
2009	74,514	462,617	621%
2010 YTD (Aug)	n/a	501,359	-
2010 YE Projection	105,631	511,996	485%
2011 Goal	168,213	n/a	-

**Goal - Lifetime ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	594,411	579,135	97%
2007	982,670	975,607	99%
2008	845,218	956,898	113%
2009	1,142,515	7,964,615	697%
2010 YTD (Aug)	n/a	3,103,409	-
2010 YE Projection	1,884,754	3,169,251	168%
2011 Goal	2,765,352	n/a	-

## Residential Water Heating Program (Electric and Natural Gas)

**Objective:** The objective of the Companies' Residential Water Heating Program is to encourage customers to purchase and install high-efficiency natural gas water heaters including indirect water heaters, on-demand tankless water heaters, combined boiler and on-demand water heating units. For electric water heating, this program promotes the purchase and installation of electric heat pump water heaters as a high efficiency option.

**Target Market:** All residential customers in the Companies' service territories.

**Program Description:** Qualified residential customers will receive a \$300 rebate for installing a natural gas ENERGY STAR -qualified indirect, on-demand tankless or combined boiler and water heater unit. Also, qualified electric residential customers will receive a \$400 rebate for installing an ENERGY STAR -qualified electric heat pump water heater. For customers to qualify for a gas rebate, they must submit (along with the completed rebate application) an inspection report signed by the local building inspector indicating that the installation of the gas hot water heater has passed inspection and complies with all building codes and relevant safety regulations. The rebate form must be filled out completely, signed and accompanied by dated sales receipts or invoice.

The following types of technologies qualify:

- Indirect water heating systems that are connected to ENERGY STAR -rated boilers (85 percent AFUE or greater).
- ENERGY STAR -qualified on-demand tankless water heater with an electronic ignition (82 percent Energy Factor or greater).
- Combined High-Efficiency ENERGY STAR -rated boiler and combined heating water units (85 percent AFUE or greater).
- ENERGY STAR -qualified heat pump water heaters with a minimum coefficient of performance (COP) of 2.0.

**Marketing Strategy:** The program will be marketed through contractor networks, distributors, home improvement retailers, Companies' websites and call centers. The Companies will continue to seek out special retail placement opportunities including point of purchase materials to highlight the benefits of high efficient products. Cooperative opportunities will be leveraged to create general awareness of the ENERGY STAR brand, generate sales and extend the message to customers.

**Incentives:** A \$300 rebate will be offered to the residential customers who purchase and install either high-efficiency indirect water heaters attached to their natural gas ENERGY STAR -rated boiler, ENERGY STAR-qualified on-demand tankless water heaters, or combined high-efficiency ENERGY STAR -rated boilers and water heating units. Also, a \$400 rebate will be offered to residential electric customers who purchase and install ENERGY STAR-qualified heat pump water heaters. The heat pump water heater incentive is only available for customers that have electric hot water heaters including first generation heat pump water heaters, or for customers that are building all-electric new homes.

**Goals:** The budget, savings and benefits of the Companies' Residential Water Heating program are presented in the standard filing requirements. For budget and reporting purposes, electric heat pump water heaters are included in Home Energy Solutions.

**New Program Issues:** Commercially manufactured heat pump water heaters have recently become available to the general public. This technology gives homeowners with electric water heat an option to greatly improve their water heating efficiency. The Companies are mindful that heat pump water heaters may not always be a suitable replacement for electric resistance water heaters. Heat pump water heaters need to be located in an area which provides sufficient volume so they can "breathe". A below-grade unconditioned basement is the ideal environment for a heat pump water heater. Anecdotally, many electric water heaters are located in closets and/or within conditioned space. In these situations, a heat pump water heater may not operate efficiently and/or it could cause discomfort issues such as "cold feet" or noise.

In April 2008, ENERGY STAR released its first ever specification for residential heat pump water heaters. While these requirements are important, they did not address some of the key consumer or application issues identified through utility program experience in northern climates. The Companies have been active in a national effort to develop ENERGY STAR standards that are more applicable to northern tier states. The purpose of the northern tier standards would be to ensure consumer satisfaction and high energy performance in cooler climates. The northern tier standards will attempt to address issues including cold air exhaust, condensate management, cold weather efficiency, freeze protection, and reliability.

Current manufacturer training of heat pump water heater installers focuses primarily on marketing and insufficiently addresses some of the important aforementioned issues. To address this concern, the companies plan to work with manufacturers, contractors and building officials on consumer education and to promote and enforce the proper application and installation of heat pump water heaters. As a follow-up, the Companies will solicit feedback from customers who have installed a heat pump water heater to gauge their satisfaction and to ensure that manufacturer guidelines are being followed.

YGS Standard Filing Requirement

**Water Heating**

<b>Budget Projections</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD(Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Budget</b>	
Labor	n/a	n/a	\$ 3,346	\$ 4,059	\$ 15,000	\$ 2,002	\$ 8,402	\$ 26,600	
Outside Service	n/a	n/a	\$ 8,322	\$ 6,568	\$ 8,000	\$ 1,787	\$ 2,987	\$ 8,000	
Materials & Supplies	n/a	n/a	\$ -	\$ -	\$ 500	\$ -	\$ 200	\$ 500	
Incentives	n/a	n/a	\$ 49,728	\$ 92,196	\$ 102,585	\$ 36,235	\$ 56,035	\$ 91,300	
Marketing	n/a	n/a	\$ 1,349	\$ 912	\$ 8,515	\$ 2,967	\$ 4,667	\$ 8,210	
Administrative Expense	n/a	n/a	\$ 114	\$ 355	\$ 2,000	\$ 3	\$ 4	\$ 1,990	
Total			\$ 62,859	\$ 104,090	\$ 136,600	\$ 42,993	\$ 72,294	\$ 136,600	a

<b>Energy Savings Information</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Goal</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goals</b>	
Annual Energy Savings (ccf Reduction Goal)	n/a	n/a	9,728	18,422	20,791	7,478	11,217	17,043	b
Lifetime Energy Savings (ccf Reduction Goal)	n/a	n/a	194,560	368,448	415,811	149,568	224,352	340,855	c
Annual Cost Rate (\$/ccf)	n/a	n/a	\$ 0.32	\$ 5.65	\$ 6.57	\$ 5.75	\$ 6.45	8.02	d=a/b
Lifetime Cost Rate (\$/ccf)	n/a	n/a	\$ 0.32	\$ 0.28	\$ 0.33	\$ 0.29	\$ 0.32	0.40	e=a/c
Total Gas Benefit	n/a	n/a	\$ 326,881	\$ 308,242	\$ 376,425	\$ 135,401	\$ 203,101	\$ 236,740	f
Total Gas System Benefit-Cost Ratio	n/a	n/a	\$ 5.20	\$ 2.96	\$ 2.76	\$ 3.15	2.81	1.73	g=f/a
Homes Served	n/a	n/a	160	303	342	124	186	304	h
Lifetime Savings per Home (ccf)	n/a	n/a	1,216	1,216	1,216	1,206	1,206	1,120	i=c/h
Program Cost per Home	n/a	n/a	\$ 393	\$ 344	\$ 399	\$ 347	\$ 389	449	k=a/h
Benefit per Home	n/a	n/a	\$ 2,043	\$ 1,017	\$ 1,101	\$ 1,092	\$ 1,092	778	l=f/h

**Program Costs**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	\$ 136,600	\$ 62,859	46%
2009	\$ 136,600	\$ 104,090	76%
2010 YTD (Aug)	n/a	\$ 42,993	-
2010 YE projection	\$ 136,600	\$ 72,294	53%
2011	\$ 136,600	n/a	-

**Goal - Participation/Units**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	290	160	55%
2009	359	303	84%
2010 YTD (Aug)	n/a	124	-
2010 YE projection	342	186	54%
2011	304	n/a	-

**Goal - Annual ccf savings**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	17,630	9,728	55%
2009	21,807	18,422	84%
2010 YTD (Aug)	n/a	7,478	-
2010 YE projection	20,791	11,217	54%
2011	17,043	n/a	-

**Goal - Lifetime ccf savings**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	352,592	194,560	55%
2009	436,139	368,448	84%
2010 YTD (Aug)	n/a	149,568	-
2010 YE projection	415,811	224,352	54%
2011	340,855	n/a	-

**CNG Standard Filing Requirement**

**Water Heating**

<b>Budget Projections</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD(Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Budget</b>	
Labor	n/a	n/a	\$ 5,385	\$ 3,750	\$ 15,000	\$ 1,368	\$ 6,368	\$ 22,610	
Outside Service	n/a	n/a	\$ 5,552	\$ 5,297	\$ 2,305	\$ 1,684	\$ 2,525	\$ 2,305	
Materials & Supplies	n/a	n/a	\$ -	\$ -	\$ 500	\$ -	\$ -	\$ 500	
Incentives	n/a	n/a	\$ 26,107	\$ 82,462	\$ 79,145	\$ 38,282	\$ 57,424	\$ 71,535	
Marketing	n/a	n/a	\$ 794	\$ 253	\$ 6,450	\$ 426	\$ 639	\$ 6,450	
Administrative Expense	n/a	n/a	\$ 242	\$ 355	\$ 2,000	\$ -	\$ -	\$ 2,000	
<b>Total</b>			<b>\$ 38,080</b>	<b>\$ 92,116</b>	<b>\$ 105,400</b>	<b>\$ 41,759</b>	<b>\$ 66,955</b>	<b>\$ 105,400</b>	a

<b>Energy Savings Information</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Goals</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goals</b>	
Annual Energy Savings (ccf Reduction Goal)	n/a	n/a	5,107	16,355	16,040	8,512	12,768	13,353	b
Lifetime Energy Savings (ccf Reduction Goal)	n/a	n/a	102,144	327,104	320,801	170,240	255,360	267,064	c
Annual Cost Rate (\$/ccf)	n/a	n/a	\$ 7.46	\$ 5.63	\$ 6.57	\$ 4.91	\$ 5.24	\$ 7.89	d=a/b
Lifetime Cost Rate (\$/ccf)	n/a	n/a	\$ 0.37	\$ 0.28	\$ 0.33	\$ 0.25	\$ 0.26	\$ 0.39	e=a/c
Total Gas Benefit	n/a	n/a	\$ 236,707	\$ 273,653	\$ 290,414	\$ 154,114	\$ 231,172	\$ 185,488	f
Total Gas System Benefit-Cost Ratio	n/a	n/a	\$ 6.22	\$ 2.97	\$ 2.76	\$ 3.69	\$ 3.45	\$ 1.76	g=f/a
Homes Served	n/a	n/a	84	269	264	141	212	238	h
Lifetime Savings per Home (ccf)	n/a	n/a	1,216	1,216	1,215	1,207	1,207	1,120	i=c/h
Program Cost per Home	n/a	n/a	\$ 453	\$ 342	\$ 399	\$ 296	\$ 317	\$ 442	k=a/h
Benefit per Home	n/a	n/a	\$ 2,818	\$ 1,017	\$ 1,100	\$ 1,093	\$ 1,093	\$ 778	l=f/h

**Program Costs**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	\$ 105,400	\$ 38,080	36%
2009	\$ 105,400	\$ 92,116	87%
2010 YTD (Aug)	n/a	41,759	-
2010 YE projection	\$ 105,400	66,955	64%
2011	\$ 105,400	n/a	-

**Goal - Participation/Units**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	210	84	40%
2009	274	269	98%
2010 YTD (Aug)	n/a	141	51%
2010 YE projection	264	212	77%
2011	238	n/a	-

**Goal - Annual ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	12,766	5,107	40%
2009	16,648	16,355	98%
2010 YTD (Aug)	n/a	8,512	-
2010 YE projection	16,040	12,768	80%
2011	13,353	n/a	-

**Goal - Lifetime ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	255,325	102,144	40%
2009	332,961	327,104	98%
2010 YTD (Aug)	n/a	170,240	-
2010 YE projection	320,801	255,360	80%
2011	267,064	n/a	-

SCG Standard Filing Requirement

Water Heating

<b>Budget Projections</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD(Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Budget</b>	
Labor	n/a	n/a	\$ 5,526	\$ 3,692	\$ 15,000	\$ 1,256	\$ 1,884	\$ 22,610	
Outside Service	n/a	n/a	\$ 6,756	\$ 5,691	\$ 2,643	\$ 2,212	\$ 3,318	\$ 2,638	
Materials & Supplies	n/a	n/a	\$ -	\$ -	\$ 500	\$ -	\$ -	\$ 496	
Incentives	n/a	n/a	\$ 35,120	\$ 81,264	\$ 93,377	\$ 53,412	\$ 84,918	\$ 85,780	
Marketing	n/a	n/a	\$ 794	\$ -	\$ 7,480	\$ 1,169	\$ 1,753	\$ 7,477	
Administrative Expense	n/a	n/a	\$ 241	\$ 355	\$ 2,000	\$ -	\$ -	\$ 2,000	
Total			\$ 48,438	\$ 91,003	\$ 121,000	\$ 58,049	\$ 91,873	\$ 121,000	a

<b>Energy Savings Information</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Goals</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goals</b>	
Annual Energy Savings (ccf Reduction Goal)	n/a	n/a	6,627	16,173	18,924	11,187	17,706	16,012	b
Lifetime Energy Savings (ccf Reduction Goal)	n/a	n/a	137,408	323,456	378,488	223,744	354,117	320,244	c
Annual Cost Rate (\$/ccf)	n/a	n/a	\$ 7.31	\$ 5.63	\$ 6.39	\$ 5.19	\$ 5.19	\$ 7.56	d=a/b
Lifetime Cost Rate (\$/ccf)	n/a	n/a	\$ 0.35	\$ 0.28	\$ 0.32	\$ 0.26	\$ 0.26	\$ 0.38	e=a/c
Total Gas Benefit	n/a	n/a	\$ 281,794	\$ 270,601	\$ 342,637	\$ 202,550	\$ 320,574	\$ 222,424	f
Total Gas System Benefit-Cost Ratio	n/a	n/a	\$ 5.82	\$ 2.97	\$ 2.83	\$ 3.49	\$ 3.49	\$ 1.84	g=f/a
Homes Served	n/a	n/a	109	266	311	185	293	286	h
Lifetime Savings per Home (ccf)	n/a	n/a	1,261	1,216	1,217	1,209	1,209	1,120	i=c/h
Program Cost per Home	n/a	n/a	\$ 444	\$ 342	\$ 389	\$ 314	\$ 314	\$ 423	k=a/h
Benefit per Home	n/a	n/a	\$ 2,585	\$ 1,017	\$ 1,102	\$ 1,095	\$ 1,095	\$ 778	l=f/h

Program Costs

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	\$ 121,000	\$ 48,438	40%
2009	\$ 121,000	\$ 91,003	75%
2010 YTD (Aug)	n/a	\$ 58,049	-
2010 YE projection	\$ 121,000	\$ 91,873	76%
2011	\$ 121,000	n/a	-

Goal - Participation/Units

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	250	109	44%
2009	318	266	84%
2010 YTD (Aug)	n/a	185	-
2010 YE projection	311	293	94%
2011	286	n/a	-

Goal - Annual ccf savings

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	15,198	6,627	44%
2009	19,329	16,173	84%
2010 YTD (Aug)	n/a	11,187	-
2010 YE projection	18,924	17,706	94%
2011	16,012	n/a	-

Goal - Lifetime ccf savings

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	303,958	137,408	45%
2009	366,587	323,456	84%
2010 YTD (Aug)	n/a	223,744	-
2010 YE projection	378,488	354,117	94%
2011	320,244	n/a	-

## CHAPTER THREE: COMMERCIAL AND INDUSTRIAL PROGRAMS (Electric and Natural Gas)

### *Vision Statement*

The EEB C&I Committee, comprised of business, utility and agency representatives continues to conduct a strategic examination of the C&I programs under the overarching principles defined in the C&I Vision Statement (“Vision”):

***The overall Vision for the future evolution of the Energy Efficiency Fund’s C&I programs is to cost-effectively support a sustainable and competitive business climate for Connecticut’s businesses and industries based on bottom-line solutions for economic competitiveness, environmental stewardship, and social responsibility.***

Consistent with this vision, the C&I programs continue to evolve to assist Connecticut businesses and manufacturers meet regional and global competitive challenges, all while providing energy-system benefits to all of Connecticut’s electric and natural gas customers.

The key themes of the Vision for the C&I programs are to:

- promote bold and meaningful savings goals (15 - 30 percent +) through energy efficiency, load management and on-site generation that will help businesses to have a real impact on their energy bills, contribute to their productivity, and enhance their competitiveness;
- achieve large increments of efficiency through high-performance buildings, systems and industrial processes (A high-performance building or facility uses less energy, provides superior indoor environmental quality, enhances worker productivity and well-being, and improves the bottom lines of developers, owners and tenants);
- provide comprehensive business energy solutions that integrate energy efficiency, load management, distributed generation, renewable energy systems and designs, and other related initiatives into a cost-effective, comprehensive solution for businesses, and

- support businesses in making energy management an integral part of their business practices and corporate culture through strategic energy management and continuous energy improvement.

This Vision supports maintaining the long-range viability of Connecticut's business sector and recognizes the investment of Fund resources necessary to bring this Vision to fruition.

The 2011 C&LM Plan contains a number of program elements that serve to actualize the Vision into programmatic form. These include:

- continued emphasis on comprehensiveness in projects and more meaningful savings impacts for businesses and industries;
- incorporating lessons learned into the Business Sustainability Challenge pilot to further promote sustainable and comprehensive energy management by businesses and industries;
- continued development of effective financing strategies to leverage Energy Efficiency Fund dollars and increase customer participation, and;
- increased emphasis on whole-building performance in the new construction market and improving marketplace knowledge of both current and future building Code changes.

Innovative technologies, enhanced and competitive building design and operational practices are constantly on the rise. As such, comprehensive whole-building initiatives, education, financing and incentive transformation must also increase. In order to meet the challenges, the Commercial & Industrial energy-efficiency portfolio continues to undergo transformation as well. In 2010, retrofit program incentive designs have successfully encouraged many customers to implement energy-efficiency projects using a comprehensive or "whole-building" approach. Plans call for this successful initiative to be continued in 2011.

Additionally, to help achieve the C&I Vision, educational offerings continue to evolve to assist Connecticut businesses, manufacturers and trade allies in meeting their competitive challenges. To that end, the Electric and Natural Gas Companies have continued to research new training opportunities for customers and trade allies on a wide variety of subjects to support the ongoing education process. As part of the 2011 program plan, the Companies will forge ahead with an increased focus on the quality and quantity of training opportunities being offered to customers and contractors associated with all core C&I programs. This focus includes continued code training for

architects and engineers in partnership with the Connecticut Chapter of the American Institute of Architects (“AIA” ), the American Council of Engineering Companies (“ACEC”) of Connecticut (“ASHRAE”), and the Connecticut Society of Professional Engineers (“CSPE”).

### **Economic Impacts/Budget Disparity**

For many years, the Companies have been working with the Energy Efficiency Board (EEB) and its Consultants to design C&I program incentives structures to “drive” the market toward implementing high efficiency design considerations and equipment options in both the new construction and retrofit markets. In addition, there has been a conscious effort between the companies to develop these program designs with a common structure and application of consistent methodologies throughout the State.

Since 2009, customers have been significantly impacted by the economic downturn and the related effects on market conditions. While the changes to program design and deployment of targeted initiatives have created programmatic successes, these changes along with the continued weak economy have created challenges with respect to budget management.

Given the nature of an annual budget approval process coupled with ongoing changes to program budgets as a result of various legislative actions and economic impacts in the market place, the companies have experienced significant variances in overall program budget levels and expenditures. This “roller coaster” results in program years with budgets being overspent and in other years, a budget surplus. In both cases, there is a corresponding impact on the following year’s budgets and these impacts may be different for each utility. The end result is that a large budget disparity exists throughout the State which has been influenced not only by the diversity and size of the utility service territories, but by a variety of other factors such as the economy and competition for contractor resources with neighboring states that offer significantly higher program incentives.

All of the above have contributed to current conditions wherein one utility program needs to drive additional program activity while another needs to curtail program activity to effectively manage budgets. Thus, maintaining common program designs and incentive structures throughout the State creates conditions that undermine the ability of each utility being able to effectively manage the program budgets.

The Companies vigorously marketed the C&I programs beginning with the fourth quarter of 2009. In June, due to high customer demand, UI prudently implemented a

series of cost-containment strategies that ultimately resulted in curtailing project activity to ensure programs remained within approved budgets. CL&P continued their C&I marketing efforts throughout 2010, with additional emphasis in July, August and September. As a result of its unprecedented marketing efforts undertaken throughout the year, CL&P also saw a substantial increase in the overall number of projects being submitted and processed. However, in spite of this increased effort and activity, the national economic downturn has had - and continues to have - an inhibiting effect on customer willingness to invest in energy efficiency projects. This reluctance, coupled with CL&P's C&I program budgets being 60 percent greater than in the prior year, has made program participation levels in 2010 challenging, illustrating how budgets and the economy can impact the Companies differently.

As a result of these challenges, the need may exist for the Companies to deploy different incentive structures and/or cost caps over the course of the program year to effectively manage program budgets and respond to differing market conditions in each of the Companies' service territories. These incentives structures may include targeted increased incentives and marketing efforts at one utility while the other utility may implement cost containment measures such as lower cost caps to ensure adequate budget is available to reach as many customers as possible with the available funds.

In 2010, to further stimulate program activity and project completions, and to help focus contractor efforts in Connecticut, the Companies deployed a contractor incentive program. The incentives this program offers to contractors are equal to 5 percent of the customer incentive for new projects that were completed prior to July 31, 2010 and 3 percent of the customer incentives for new projects completed between July 31 and November 30, 2010. In addition, vendors completing comprehensive projects by November 30 are eligible for a five percent of the customer incentive bonus. The Companies and the EEB will continue to monitor market response to these programs and make changes when deemed necessary.

Given the economic recession's continuing impact on customer participation in Fund programs, the Electric and Natural Gas Companies and the EEB Consultants will continue to investigate program and incentive modifications to help stimulate the marketplace and increase the depth and breadth of energy efficiency projects being considered by utility customers. Going forward, the Companies may need to initiate different program structure changes to ensure budgets are appropriately managed.

As directed by the Department, the Companies kicked-off a Customer Behavioral Software Pilot in September of 2010. The Companies will begin issuing customized customer reporting by the end of 2010 with the full launch of customer reporting in the

first quarter of 2011. The pilot will be implemented in three (3) phases to provide customer energy information which will have measurable impact on conservation and energy efficiency for residential households, small businesses and municipal buildings. Each phase will last for one year. The pilot will track electric savings with natural gas savings to be added later in 2011.

### **Growth of Natural Gas Energy Efficiency Participation**

The natural gas elements of the C&I programs have continued to mature and participation in the natural gas programs has steadily increased. In 2008, the Natural Gas Companies' combined C&I program budget was \$3.4 million. At year's end, the overall C&I budgets were 62 percent expended. In 2009, the Natural Gas Companies' combined C&I program budget increased by 28 percent to \$4.4 million and at year's end, the overall C&I budgets were 77 percent expended. In 2010, the filed and Department-approved combined C&I program budget increased by 15 percent to \$5 million and by mid-year the C&I programs budgets for all three companies were fully committed. As a point of comparison over the past three years of implementing C&I gas projects, the quantity and dollar volume of contracts presented to gas customers in the first 8 months of 2010 is approximately 100% higher than this same period for 2008 and 75% higher than this same period in 2009. Commensurate with this increased market awareness and activity, the proposed combined C&I program budget for 2011 has been increased by nearly 30 percent to \$6.6 million dollars. This represents nearly a doubling of the C&I natural gas program budgets since 2008.

The Natural Gas Potential Study ("MAP") conducted by KEMA, Inc. identified a number of gas end uses with high gas savings potential (e.g., commercial food service). As a result, prescriptive incentives and rebate forms were developed and deployed for ENERGY STAR rated steam tables, fryers and convection ovens in 2010. In response to the Natural Gas Companies' presentation to vendors and contractors regarding the MAP study results, participants provided feedback indicating the desire to have more natural gas equipment rebates available. Additional rebates for low-intensity infrared heaters are currently under development and are expected to be available in 2011. The Natural Gas Companies' will continue to explore additional rebate opportunities for gas equipment in 2011.

### **Measure Value**

The current incentive structures for all custom measures are capped at a percentage of "measure value". Measure value is the benefit realized from the measure and is calculated to be the net present value of the avoided costs (i.e., value of the savings in

2011 dollars) associated with the net savings of that measure over the life of the measure (Refer to Chapter 6 for a discussion of Benefit Cost Analysis). However, in 2011, to provide more program transparency and better information for customers and contractors to evaluate their projects, the Companies will, where practical, publish specific incentive capping mechanisms based on cents per kWh and/or dollars per kW for the electric programs and dollars per ccf for the gas programs. The Companies will continue to monitor program activity and market conditions and may adjust program incentive caps as needed to better serve customers and appropriately manage to approved budgets.

### **Energy Conscious Blueprint Overview**

The Energy Conscious Blueprint (“ECB”) program serves the new construction and equipment replacement markets. The new construction market continues to be adversely impacted by the ongoing downturn in the economy. As a result, replacement of old equipment and adding new equipment currently comprises the majority of new ECB program activity. With recognition of the need to better leverage Fund dollars, the Companies are reviewing the incentive structure for custom equipment replacement projects with a goal of ensuring customers are appropriately vested in the project relative to their anticipated return on investment. Thus for custom equipment replacement projects (e.g., process line additions, injection molding machines, etc.) the Companies are evaluating reductions in the percent of incremental costs used for incentive calculations and/or additional project incentive capping mechanisms for 2011 (e.g., the incentive will be limited to a value which results in a 18 month simple payback to the customer).

In 2011, the ECB program will continue to focus on achieving results beyond code. As described in the discussion of Connecticut State Code, codes are becoming ever more stringent and are driving toward whole- building performance. In recognition of the direction Codes are moving and being consistent with the overall C&I program vision, the ECB program is being enhanced to assist the marketplace in making this transition. To that end, the ECB program will offer two program tracks for new construction activities beginning in 2011: (1) traditional measure-based and (2) whole-building performance. The traditional measure-based track will offer prescriptive and custom-based installation incentives consistent with existing program design.

The whole-building performance track recognizes the variability in setting code baselines when working to the requirements of design processes for high-performance buildings such as Leadership in Energy and Environmental Design (“LEED”) or Green Globes wherein the whole building is modeled against a baseline set by the design

professional and achieves a score based, in part, on overall energy and demand savings. To facilitate this whole-building design approach, the companies are evaluating offering financial assistance to help customers model their projects and offer cash incentives on a per-square-foot basis on either a sliding scale or tiered approach. In this way, customers are assisted and incentivized to go beyond code.

## **Connecticut State Code**

Energy Codes are receiving great attention as a cost-effective method to increase efficiency levels in buildings and to reduce carbon emissions. The Department of Energy (DOE) has laid out a path to increase stringencies in codes to achieve an 83 percent reduction in carbon emissions by 2050. DOE also recognizes that compliance with the code is even more critical than having a code with higher levels of efficiency. Connecticut, as one of the covenants to receiving Federal stimulus funds, has agreed to adopt ASHRAE/IESNA Standard 90.1-2007 for commercial construction and to create a plan for achieving 90 percent compliance with the energy code by 2018. Connecticut statute also requires the adoption of the 2012 IECC within 18 months of publication (or July 2013). The 2012 IECC uses ASHRAE 90.1-2010 as the reference document.

The Companies will continue to support the adoption of the latest model energy code and will structure program incentives for new construction to encourage owners and design professionals to go beyond the code requirements. However, the Companies also believe that code compliance is more important than having a more stringent code.

The proposed code change amendment to adopt the 2009 IECC has been submitted to the Governor's office and the Office of Policy and Management for preliminary approval. After preliminary approval has been granted, a public hearing or hearings will be held, and comments received addressed in a final draft, which will then be submitted to the Office of the Attorney General for review for legal sufficiency. Upon the Attorney General's approval, the draft amendment will be submitted to the Legislative Regulations Review Committee. The amendment will become effective upon filing with the Secretary of the State's office or on a certain date specified by the Department of Public Safety ("DPS").

DPS has retained Eastern Connecticut State University's Institute for Sustainable Energy to perform a benchmark study of the enforcement community and then DPS will prepare and deliver initial mandatory training on the 2009 IECC, anticipated to begin late in 2010. DPS will also have on-site audits performed (anticipated for late 2011) to document the compliance rate as one of the covenants to receiving Federal stimulus

funds, as discussed above. If the compliance rate is below 90 percent, DPS will perform additional training and surveys until a 90 percent compliance rate is achieved.

The Companies will coordinate training activities with DPS so that the best results can be achieved in a cost-effective manner. DPS will focus on the enforcement community. The Companies will focus on the design professionals, suppliers and the construction community. The Companies will also support training-needs assessments to help identify areas and tools that need to be addressed to improve compliance. Information from the on-site audits may also be utilized to identify specific problem areas. The Companies' training will cover the current code requirements, the technologies possible, tools and practices that will support compliance, the requirements that will be included in the next edition of the code, and standards on commissioning, maintenance manuals and operating manuals. Forums will also be held with the design professionals to help them understand how their business and enforcement practices need to be revised to accommodate the changes in the code. This particular aspect of forums was initially launched in mid-September and will be held again in mid-October. The Companies believe that a coordinated effort of training and structured program offerings should accelerate the achievement of the 90 percent compliance rate.

### **Energy Opportunities Program Overview**

In 2010, the Energy Opportunities Program continued with the successful "comprehensive" initiative, increased focus on higher performance lighting technologies (solid state LED and induction lighting) and targeted efforts to eliminate older T12 technologies from customer facilities.

The comprehensive initiative encourages customers to look beyond the 'low-hanging fruit' to achieve wider and deeper savings. Comprehensive projects are eligible for higher incentives if they are comprised of multiple measures with at least two or more end uses and at least 15 percent of the value of the project's annual kWh savings and peak summer kW savings value is from a non-lighting end use.

The increased focus on higher-performance lighting technologies provides higher potential incentives for qualifying LED or induction lighting. Qualified LED fixtures must be ENERGY STAR -qualified or approved through the Northeast Energy Efficiency Partnership ("NEEP") Design Lights Consortium.

These initiatives will likely be continued in 2011, however the incentive values and capping mechanisms may be adjusted as needed based on available budgets, market

conditions and customer response with a published incentive unit rate based on annual kWh or summer peak kW demand saved.

In an effort to offer more options to customers and further leverage Fund dollars, financing options (refer to Chapter 5) through a third party financing entity are being offered in 2010. Qualified customers have several financing options to choose from based on their individual economic situation, cash flow analysis and needs. These variable choices are listed below. As more experience with these options is gained from the loan offerings and customer response, the loan structures may be modified.

Current options are:

- Customers may receive loans of up to \$100,000, with an interest-rate buy down to 2.99 percent for a term of two years in addition to the Fund-calculated program incentive if they comply with the T12 /HID replacement initiative in 2010.
- Loans with interest-rate buy down to 7- 10 percent in addition to the Fund-calculated program incentive are also offered to customers. However, the total subsidy is capped at 112.5 percent of the calculated incentive. The term for this loan is limited to five years.
- A blended-rate loan is available to customers if they choose to accept the Energy Efficiency Fund-calculated program incentive for finance amounts between the \$100,000 limit (subsidized) and up to \$250,000 (unsubsidized).

The Electric and Natural Gas Companies and the Energy Efficiency Fund continue to explore ways to leverage Energy Efficiency Fund dollars and are working to identify sources of stable and affordable capital that can be accessed by Energy Efficiency Fund participants. This effort includes identification of and dialog with financing experts who are knowledgeable about the financial value of energy efficiency with the goal of developing innovative approaches to financing for Fund participants.

### **Small Business Energy Advantage Program Overview**

In 2010, the Small Business Energy Advantage Program continued with the successful “comprehensive” initiative, increased focus on higher performance lighting technologies (solid state LED and induction lighting) and targeted efforts to eliminate T12 technologies from customer facilities.

In 2011, the Electric Companies will continue to offer the comprehensive initiative encouraging customers to go beyond the "low hanging fruit" and achieve wider and deeper savings, where it is economically feasible.

In addition, the Companies are improving the consistency of the statewide program offering with both companies now utilizing a common program eligibility level of customers up to 200 kW.

### **Operations & Maintenance ("O&M") Services Program Overview**

The Electric and Natural Gas Companies and the Energy Efficiency Fund consultants have worked together to develop a long-term strategic framework for the O&M program, consistent with the C&I Vision and themes, designed to capture untapped incremental energy and demand savings by changing C&I customer energy-management behaviors. This approach to achieving savings serves to enhance the overall performance of the core C&I programs, thereby increasing the persistence of savings for those programs, and encouraging Connecticut businesses and industries to take greater control and ownership of their energy-management efforts. O&M program markets are complex and are comprised of multiple segments, multiple agents within buildings and facilities, multiple service providers and multiple vendors, each creating various market barriers. As a result of these considerations, the Electric and Natural Gas Companies continue to enhance O&M program offerings that can help customers achieve operational and behavior-based energy reductions. The operational and behavior-based components of the program, coupled with the core C&I programs offerings, provide the opportunity for customers to achieve more comprehensive solutions to their energy needs.

To that end, the Electric and Natural Gas Companies and the EEB consultants have worked together to develop the Business Sustainability Challenge ("BSC") training and education pilot. This pilot initiative seeks to make energy, resource and carbon management an integral and sustainable part of Connecticut businesses and will utilize a more holistic approach to educating customers on the value of managing energy and non-energy resources like water, paper and other business consumables. BSC is intended to provide businesses training, tools and an opportunity to achieve long-term social, environmental and economic sustainability through:

- executive / upper management commitment;
- sustainability and/or energy management assessments;

- sustainability and energy management plan development with defined environmental/sustainable objectives and energy-management practices and investments;
- continuous improvement objectives and plan implementation that integrates the Energy Efficiency Fund, CCEF and other programs;
- guidance regarding available measurement and tracking tools and;
- communications support.

The BSC was initially deployed in 2008 to a small group of interested customers (now called “Track A”, and administered by United Illuminating). These customers were offered a range of mentoring and technical support including:

- consultative services;
- tailored packaging of core C&I program offerings;
- assistance with allied programs and sustainability;
- renewables, on-site generation, load management/response;
- carbon inventory management, LEED, ENERGY STAR Benchmarking, etc., and
- training and knowledge transfer.

In 2010, the BSC pilot program expanded to serve more customers and test a different approach by incorporating an additional, complementary training and education track (“Track B”, administered by CL&P), with dedicated resources and funding that provided a variety of programmatic and educational tools, resources, and training to promote business sustainability.

Track B offered thirteen participating companies an interactive, classroom-based course curriculum, delivered by different industry and subject matter experts at monthly half-day workshops. The classroom setting encouraged networking and sharing best practices, while receiving training in various subjects, including:

- Sustainable Business Practices;
- Energy-Carbon Footprint Management;
- Creating the Sustainability Playbook;
- Lean to Green Manufacturing Practices;

- Benchmarking - the value and the tools;
- Sustainable Supply Chains;
- Sustaining Sustainability through O&M and Continuous Improvement and;
- Marketing the Sustainable Business.

In 2011, the BSC training and education pilot will continue to be managed as Tracks A & B, empowering customers to identify both low-cost and long-term resource solutions specific to their facilities and operations, implement new strategies and behaviors and obtain near-term results that are sustainable over the long term. In addition to classroom settings, on-line “webinars” and other methods of training may be incorporated into the Track B experience. Both market data and customer feedback will be used to determine the strengths and weaknesses of each Track’s approach, and how best to combine the most valuable elements of the original pilot approaches to best meet customer needs.

### **Connecticut Energy Advisory Board**

The Connecticut Energy Advisory Board (“CEAB”) recently completed its, “2010 Comprehensive Plan for the Procurement of Energy Resources,” which included several recommendations for the C&I program portfolio on a program-specific basis. These recommendations are addressed in each of the program descriptions.

## C&I NEW CONSTRUCTION

### Energy Conscious Blueprint (Electric and Natural Gas)

**Objective:** The objective of the Energy Conscious Blueprint (“ECB”) program is to maximize electric and natural gas energy savings for “lost opportunity” projects, at the time of initial construction/major renovation, or when equipment needs to be replaced or added. These opportunities are realized by: (1) introducing energy efficiency concepts to customers, architect/engineering firms, contractors, commercial realtors, trade allies, etc., (2) demonstrating the benefits of selecting efficient options during the design stage, and (3) working with the design community to convince customers that more benefits are achievable by designing for whole-building operations and operating conditions.

**Target Market:** The ECB program specifically targets C&I customers of all sizes (including municipalities) that are planning projects involving new construction, major renovation, and tenant fit-out and/or major equipment replacement.

Owners and managers of multi-family residential buildings may also participate in the ECB program. They represent a target market that often straddles the eligibility requirements of both C&I and residential program offerings.

ECB will continue to provide both electric and natural gas energy efficiency measures to customers using integrated program delivery. This delivers a simpler and more streamlined experience for the customer and provides a more comprehensive package for achieving greater energy efficiencies within their facilities.

**Program Description:** The ECB program promotes energy efficiency for C&I projects involving new construction, major renovation, tenant fit-outs, and equipment replacement/additions. The program seeks to increase the energy efficiency and performance of lighting systems, heating, hot water, ventilation and air conditioning

systems, motors, processes, and other energy components of C&I buildings or projects.

This program offers a variety of services and incentives, including technical and financial assistance from design through construction. These services and incentives are based on the proposed project's complexity, energy savings potential, scope of work, and the desire of the owner and his/her design team to participate.

The program is evolving towards compliance with high-performance building standards. While this is currently required for state funded buildings, it is still only an option for other customers. For those required or desiring to use whole-building energy-performance requirements, a minimally compliant design will be treated as "code". Equipment and systems that generate energy savings and demand reduction above the project-specific code baseline will be eligible for custom ECB incentives.

**Marketing Strategy:** While the target of this program is ultimately the customer, enrollment is largely driven by such market actors as architects, contractors, engineers, equipment suppliers, service companies, and other allies of the "building environment" community. As such, a primary strategy is to promote the ECB program directly to these groups using such tactics as:

- paid advertising (print and electronic) in local and regional trade publications (directing audiences to the Electric and Natural Gas Companies' web sites, CTEnergyInfo.com and the WISE USE number);
- targeted mailing of program literature utilizing association lists, and purchased lists, and
- booth presence at strategically selected trade shows.

Another tactic is to promote ECB to building owners and business owners (who are not necessarily the same people), facilities managers and energy managers -- individuals existing

in a different environment than the building community members. Promotion tactics may include:

- paid advertising (radio print and electronic) in broadcast outlets, local and regional business publications directing audiences to the Electric and Natural Gas Companies' web sites, CTEnergyInfo.com and the WISE USE number;
- booth presence at strategically selected business expos, and
- participation in strategically selected conferences similar to but not limited to the Edison Electric Institute's National Accounts conferences.
- contacting decision-makers as early as possible in the design or equipment selection stage of their projects when energy efficiency is most cost effective, and
- utilizing Construction Data Company ("CDC"), Dodge reports and REED reports to monitor upcoming projects throughout the state and to obtain key project contact information.

In addition to program-specific promotion, marketing efforts will also include actions intended to support C&I customers and the building community, and to further the cause of market transformation. This support may include:

- writing and distributing case studies (also referred to as Success Stories or Testimonials) to the sites listed above and to local media and national/regional trade publications;
- promoting Fund-sponsored technical training seminars via e-mail and newsletters;
- hosting contractor meetings, and
- participation in associations through memberships and events.

**Incentive Strategy:** As the program transitions toward the anticipated 2012 codes and standards and the promotion of whole-building performance, incentives will be offered in two tracks. The

Prescriptive Measure Track will continue to be based on the energy efficiency of a design and incremental costs between less expensive, prescribed code-compliant efficiency equipment and a more expensive, high-efficiency option. Prescriptive, incremental-cost-based incentives will continue to be measured against cost-effectiveness criteria to ensure that enough energy savings are attained to justify the incentive.

The Whole Building Performance Track will provide custom incentives to customers and their design teams based on the level of building performance that is designed and installed relative to the building code.

The Prescriptive Measure Track incentives will continue to provide incentives based on a percentage of the incremental equipment cost associated with the installation of efficient systems and equipment, compared to the cost of code-compliant standard design practice.<sup>6</sup> The program includes incentives for the more common energy component standards (lighting, HVAC, VFDs, motors, etc.), as well as any other energy-saving technology where extra costs, relative to established baseline, can be justified by the energy savings. The program encourages customers to go beyond customary standards by recognizing the associated increased difficulties and costs.

The Whole Building Performance Track will offer the design team members financial assistance (expressed in dollars per square foot) for modeling and integrating multiple qualifying energy-efficient measures into a building's design. Then, upon installation, the Whole Building Performance Track will pay the customer an installation incentive. The installation incentive

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<sup>6</sup> The Companies are evaluating reductions in the percent of incremental costs used for custom, process measure incentive calculations (from 95 percent currently to 75 percent) and an additional project incentive capping mechanisms for 2011 which limits the value of the incentive to that which results in a simple payback to the customer of 18 months or more. Reducing incremental cost-based incentives in conjunction with other potential capping mechanisms is being evaluated for custom process measures to ensure customers are appropriately vested in the project relative to their anticipated return on investment. One potential capping mechanism currently being explored is a published table listing "cents per annual kwh saved" or "dollars per peak kW" saved

would be based on the criteria that the amount will increase commensurate with the percentage of improvement in a whole building's energy efficiency relative to the design team's approved upgrade plan. This unit incentive would be expressed in dollars per square foot and would be based in part upon paid project history and experience, which happen to be a range of \$0.10 - \$2.00 per square foot. Finally, the Whole Building Performance Track will pay the customer a fixed amount, based upon a sliding scale, (expected range: \$5,000 - \$15,000) if they provide certification of LEED Silver, Gold or Platinum (or 2, 3 or 4 Green Globes).

The Electric Companies may employ a maximum incentive cap either on a per customer Federal Tax ID, per customer account, or per project basis, in order to make ECB funds available to more customers. Regardless of which incentive mechanism is offered to the customer, it will be pro-rated between electric and natural gas ECB budgets, using the percentage split of the customer's energy cost savings between the two energy sources.

Goals: Refer to Standard Filing Requirements for program goals.

New Program Issues: The rapidly changing landscape of Energy Codes and Standards is forcing a change in the program design for the Energy Conscious Blueprint program. ECB will need to take the next two to three years to transition the program from a primarily prescriptive-only track to one that focuses on and emphasizes whole- building energy performance. This program redesign will allow ECB to be compatible with the direction and vision of the energy efficiency market, policymakers and certifying entities such as, LEED and Green Globes.

There has been no addendum to the energy portion of the Connecticut Building Code since the 2006 IECC took effect in August, 2009. Therefore, ECB will continue to use a code-established baseline for energy savings and incentive calculations. The Energy Independence and Security Act of 2007 increased the minimum-efficiency requirements of general-purpose motors greater than 1.0 horsepower starting in

December 2010. In addition, there are new efficiency standards for motors greater than 200 horsepower and less than or equal to 500 horsepower. Both of the changes will be used as the baseline for three-phase motors in 2011.

The Electric and Natural Gas Companies will continue to work with the Codes and Standards Committee and the Department of Public Safety during the adoption process for the 2009 IECC to create a mechanism to document code compliance. It is anticipated that the 2009 IECC will be adopted in the second half of 2011.

The Companies are evaluating and will implement a customer payback incentive cap for custom equipment replacement measures. The proposed payback incentive cap criteria will result in an incentive, which will limit the customer's net simple payback to no less than 18 months. **Also, a new incentive cap is proposed which will impose, where practical, published unit cost rate caps (on a cost-per-annual-energy-saved basis along with a cost-per-peak demand-saved basis). This is an effort to provide a higher level of transparency while continuing to better manage project incentive costs.**

To minimize the impact of large incentive dollar value projects on approved budgets, the Natural Gas Companies will continue to exclude natural gas projects with customer incentives in excess of \$100,000 from 2011 C&LM Plan filed natural gas budgets and Projects with customer incentives in excess of \$100,000 will be submitted to the Department for approval.

### **Connecticut Energy Advisory Board (CEAB)**

The Connecticut Energy Advisory Board (CEAB) recently completed its "2010 Comprehensive Plan for the Procurement of Energy Resources" and listed several recommendations for the Energy Conscious Blueprint program. These recommendations have been reviewed by the Companies and the EEB. Those recommendations are as follows, along with the Companies' and the EEB's responses.

1. Employ a simple dollar / sq. ft. incentive for smaller new construction projects (e.g., less than 100,000 sq. ft.) that includes a comprehensive list of energy efficiency measures and construction practices that reduce administrative costs. Such a list should be easy to understand and market.

Response: In 2012, the Companies will evaluate ways to effectively identify, deploy and market comprehensive lists of EE measures and construction practices with the ultimate goal of reducing administrative costs and simplifying customer participation.

2. Use a negotiated incentive approach for larger new construction projects (e.g., in excess of 100,000 sq. ft.).

Response: With few exceptions, current practice is to provide all customers with equal access and standard incentive structures. Negotiated incentives result in market confusion and/or dissatisfaction among customers familiar with published standard incentive amounts. Negotiated incentives create uncertainty on the part of participants and a reluctance to invest in the engineering needed to define energy efficiency projects and establish energy savings. These efforts generally raise administrative costs for both the program administrators and the customers due to the increased time necessary to complete and process such negotiations. The EDCs must weigh the benefits of lowering incentives and raising project completion rates against the increased administrative costs, market confusion, and potential loss of good energy savings projects associated with this method.

3. Financial incentive “offer” is a proposal, integrating solutions offered by contractors, vendors, banks, leasing companies or other project participants.

Response: Structuring an integrated proposal with “buy in” from each of the individual stakeholders adds time and complexity to the project and requires a broad array of skills and resources, especially when made available to thousands of customers. The cost of administering this type of approach must be

weighted against the benefits. A typical “performance contract” does integrate many of these elements, but the sales cycle can be as lengthy as two years. This is a resource- and time-intensive process which does not fit well with a new construction cycle. Variable incentives based on assessments of individual customers’ financial health, corporate investment strategies and requirements, etc. create uncertainty on the part of participants and a reluctance to allocate the necessary resources.

4. Financial incentive based on required cash flow performance.

Response: The Companies do not offer any financing for new construction or major renovation-style projects. In 2010, the Companies offered a loan package for equipment replacement consisting of a 7 percent subsidized loan option with a maximum term up to 5 years, featuring positive cash flow capabilities with a subsidized loan range of from \$2,000 to \$100,000. The Companies continue to explore financing options that can be made available to participants, but cash flow is not the typical criteria used by the business community to gauge the attractiveness of a project.

5. Pilot programs in Vermont and New York have indicated that incentives can be reduced for all types of projects (retrofit and market driven) by 20-30 percent.

Response: The Companies continue to explore financing options that can be made available to program participants.

## CL&P Standard Filing Requirement

### Energy Conscious Blueprint

All dollar values are in \$000

<b>Budget Projections</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>Revised 2010 Budget</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projected</b>	<b>2011 Budget</b>	<b>2012 Budget</b>
Labor							
NU Labor	\$ 1,329	\$ 1,100	\$ 1,600	\$ 652	\$ 978	\$ 1,053	\$ 1,053
Contractor Staff	\$ 208	\$ 86	\$ 215	\$ 225	\$ 337	\$ 383	\$ -
Total Labor	\$ 1,537	\$ 1,186	\$ 1,815	\$ 876	\$ 1,315	\$ 1,436	\$ 1,053
Materials & Supplies	\$ 5	\$ 1	\$ 14	\$ 3	\$ 4	\$ 11	\$ 10
Outside Services	\$ 582	\$ 88	\$ 1,182	\$ 71	\$ 150	\$ 900 a)	\$ 632
Incentives	\$ 16,228	\$ 5,367	\$ 10,114	\$ 4,614	\$ 4,896	\$ 6,194 b)	\$ 4,640
Marketing	\$ 42	\$ 20	\$ 125	\$ 122	\$ 184	\$ 100 c)	\$ 92
Administration Expenses	\$ 43	\$ 42	\$ 60	\$ 24	\$ 37	\$ 48 d)	\$ 44
Other	\$ 24	\$ 51	\$ 90	\$ 11	\$ 17	\$ 70	\$ 64
Total	\$ 18,461	\$ 6,756	\$ 13,400	\$ 5,722	\$ 6,602	\$ 8,759	\$ 6,535

- a) Services include technical assistance, analysis, quality control, and inspections.  
Budget reflects the need for ongoing engineering and design expertise to address building code changes with the design and contractor community and for equipment replacement projects.
- b) Incentives paid directly to customers for the installation of cost effective energy conservation measures.
- c) Includes marketing to customers, trade allies, and professional organizations to maintain program momentum.  
Marketing is also through construction reports, direct mail, advertising, associations, and promotional items.
- d) Employee expenses including mileage, training, conference attendance, and misc.

#### 2011 Goals and Metrics Information

	<u>Program Total</u>	<u>Municipal</u>
Demand Savings (kW reduction Goal)	4,237.2	550.3
Annual Energy Savings (KWh Reduction Goal)	22,949,019	2,980,310
Lifetime Energy Savings (kWh Reduction Goal)	362,213,991	47,039,489
Annual Cost Rate (\$/kWh)	\$ 0.382	\$ 0.382
Lifetime Cost Rate (\$/kWh)	\$ 0.024	\$ 0.024
Electric b/c Ratio	3.77	3.77
Total Resource b/c Ratio	3.85	3.85

## CL&P Standard Filing Requirement

### Energy Conscious Blueprint

Year	<u>Program Costs</u>		% of Budget	\$/LT-kWh <sup>1</sup>
	Budget	Actual		
2000	\$ 7,770,000	\$ 6,884,000	89%	0.013
2001	\$ 7,878,000	\$ 8,193,000	104%	0.011
2002	\$ 7,435,000	\$ 8,189,000	110%	0.011
2003	\$ 5,700,000	\$ 5,431,000	95%	0.015
2004	\$ 6,250,000	\$ 7,288,000	117%	0.012
2005 Revised	\$ 8,125,755	\$ 5,980,886	74%	0.010
2006 Revised	\$ 12,316,230	\$ 9,448,615	77%	0.012
2007 Revised	\$ 12,417,000	\$ 13,084,740	105%	0.019
2008 Revised	\$ 18,278,675	\$ 18,460,585	101%	0.024
2009 Revised	\$ 9,920,000	\$ 6,756,116	68%	0.018
2010 Revised	\$ 13,399,500	n/a	n/a	n/a
2010 YTD (Aug)	n/a	\$ 5,721,570	43%	0.038
2010 Y/E Projected	n/a	\$ 6,602,112	49%	0.022
2011	\$ 8,758,735	n/a	n/a	n/a

Year	<u>Goal - Participation</u>		% of Goal
	Goal <sup>2</sup>	Actual	
2000	6,174	5,719	93%
2001	6,362	6,986	110%
2002	5,937	6,897	116%
2003	210	111	53%
2004	117	132	113%
2005 Revised	216	216	100%
2006 Revised	676	695	103%
2007 Revised	659	603	92%
2008 Revised	1,105	689	62%
2009 Revised	517	390	75%
2010 Revised	503	n/a	n/a
2010 YTD (Aug)	n/a	254	51%
2010 Y/E Projected	n/a	381	76%
2011	444	n/a	n/a

Year	<u>Goal - Lifetime MWh Savings</u>			Year	<u>Goal - Installed kW Savings</u>		
	Goal (MWh)	Actual (MWh)	% of Goal		Goal	Actual	% of Goal
2000	412,230	511,001	124%	2000	n/a	n/a	n/a
2001	739,115	712,952	96%	2001	n/a	n/a	n/a
2002	605,194	728,424	120%	2002	n/a	n/a	n/a
2003	582,130	355,076	61%	2003	8,878	4,025	45.3%
2004	357,198	593,271	166%	2004	5,682	10,592	186.4%
2005 Revised	622,846	624,220	100%	2005 Revised	9,579	8,114	84.7%
2006 Revised	991,250	812,823	82%	2006 Revised	9,202	8,771	95.3%
2007 Revised	557,085	704,845	127%	2007 Revised	7,974	9,354	117.3%
2008 Revised	770,793	765,081	99%	2008 Revised	9,868	8,279	83.9%
2009 Revised	434,848	382,538	88%	2009 Revised	6,114	5,331	87.2%
2010 Revised	518,987	n/a	n/a	2010 Revised	4,237	n/a	n/a
2010 YTD (Aug)	n/a	151,459	29%	2010 YTD (Aug)	n/a	1,920	45.3%
2010 Y/E Projected	n/a	305,562	59%	2010 Y/E Projected	n/a	3,619	85.4%
2011	362,214	n/a	n/a	2011	4,237	n/a	n/a

Year	<u>Program Ratios</u>			
	\$ / Lifetime kWh		\$ / Annualized kW	
Year	Plan	Actual	Plan	Actual
2000	0.019	0.013	n/a	1,003
2001	0.011	0.011	n/a	1,083
2002	0.012	0.011	n/a	768
2003	0.013	0.015	870	1,349
2004	0.017	0.012	1,100	688
2005 Revised	0.013	0.010	848	737
2006 Revised	0.012	0.012	1,338	1,077
2007 Revised	0.022	0.019	1,557	1,399
2008 Revised	0.024	0.024	1,852	2,230
2009 Revised	0.017	0.018	1,623	1,267
2010 Revised	0.026	n/a	3,162	n/a
2010 YTD (Aug)	n/a	0.038	n/a	2,980
2010 Y/E Projected	n/a	0.022	n/a	1,824
2011	0.024	n/a	2,067	n/a

## CL&P Standard Filing Requirement

### Energy Conscious Blueprint

#### CL&P Program Notes

##### Budget/FTE

7.9 FTEs for Program administration, site inspection, education of design professionals including State building code changes. These change also require an increased effort in marketing and project review with design and contractor community.

##### Goal

Demand Savings (kW Reduction Goal)	4,237
Lifetime Energy Savings (kWh Reduction Goal)	362,213,991

##### Cost/kWh (Cost/Unit)

\$/Annualized kW	\$	2,067
\$/Lifetime kWh	\$	0.024

##### Goal Setting Methodology

The 2011 planning model is based on 2009 actual results from similar projects, program rules and baseline changes.

##### Metric Changes

None

**The United Illuminating Company**  
**EL-25 Standard Filing Requirement**  
**2011**

Energy Conscious Blueprint <sup>(1, 2)</sup>

**Baseline Assumptions:**

Market C&I new construction, renovation and tenant fit-out program, all C&I customers

<b>Budget Projections</b>	<b>2010</b>		<b>2010</b>		<b>2011</b>		<b>2012</b>	
	<b>2009 Act</b>	<b>Revised Bud</b>	<b>YTD (Aug)</b>	<b>YE Projected</b>	<b>Bud</b>	<b>Bud</b>	<b>Bud</b>	<b>Bud</b>
<b>Labor</b>								
UI Labor	\$ 519,382	\$ 523,884	\$ 331,012	\$ 523,884	\$ 526,753 a)		\$ 553,091	
Contractor Staff	\$ -	\$ 25,000	\$ -	\$ -	\$ 15,000 b)		\$ 15,000	
Total Labor	\$ 519,382	\$ 548,884	\$ 331,012	\$ 523,884	\$ 541,753		\$ 568,091	
<b>Materials &amp; Supplies</b>								
Materials & Supplies	\$ 9,410	\$ 4,500	\$ 2,470	\$ 4,500	\$ 4,500 c)		\$ 4,500	
Outside Services	\$ 25,423	\$ 207,000	\$ 27,550	\$ 41,325	\$ 165,000 d)		\$ 100,000	
Incentives	\$ 3,680,528	\$ 4,276,439	\$ 1,571,938	\$ 4,571,398	\$ 2,369,974 e)		\$ 1,657,062	
Marketing	\$ 42,401	\$ 63,000	\$ 49,286	\$ 49,286	\$ 40,000 f)		\$ 30,000	
Other	\$ 19,838	\$ 13,000	\$ 16,778	\$ 16,778	\$ 11,000 g)		\$ 11,000	
Administrative Expenses	\$ 40,064	\$ 43,500	\$ 37,148	\$ 43,500	\$ 42,300 h)		\$ 42,300	
<b>Total</b>	<b>\$ 4,337,045</b>	<b>\$ 5,156,323</b>	<b>\$ 2,036,182</b>	<b>\$ 5,250,671</b>	<b>\$ 3,174,527</b>		<b>\$ 2,412,953</b>	

(1) ECB includes rebate initiatives like Motors and Cool Choice

(2) ECB includes Municipal projects

- a) 4.34 FTEs
- b) temporary contract services
- c) no comment
- d) Consultant / Engineering / audit services
- e) Customer incentives
- f) Brochure revision, selected advertising, public relations, etc.
- g) no comment
- h) Employee training, mileage, etc.

**Goals and Metrics Information:**

<b>Savings</b>	<b>2011</b>
Demand Savings (kW)	1,335
Annual Energy Savings (kWh)	9,525,736
Lifetime Energy Savings (kWh)	154,179,870
Annual Cost Rate (\$/kWh)	\$ 0.333
Lifetime Cost Rate (\$/kWh)	\$ 0.021
Cost per kW	\$ 2,378
Electric System B/C Ratio	4.26
Total Resource B/C Ratio	4.10

# The United Illuminating Company LF-26 Standard Filing Requirement

Energy Conscious Blueprint (1,2)

Goal - Program Costs (000's)

Year	Budget	Actual	% of Goal Achieved
2000	\$2,812	\$2,768	98.4%
2001	\$2,313	\$2,304	99.6%
2002	\$2,083	\$2,019	96.9%
2003	\$2,390	\$1,963	82.7%
2004	\$2,347	\$2,021	86.1%
2005	\$4,045	\$3,787	93.6%
2006	\$3,170	\$3,174	100.1%
2007	\$2,922	\$5,051	172.9%
2008	\$2,627	\$3,422	130.3%
2009	\$4,855	\$4,337	89.3%
2010	\$5,156		
2010 YTD (Aug)	\$5,156	\$2,036	39.5%
2010 YE Projected	\$5,156	\$5,251	101.8%
2011	\$3,175		

Goal - Installed kWh Savings (000's)

Year	Goal	Actual	% of Goal Achieved
2000	11,022	22,113	200.6%
2001	14,815	25,568	172.6%
2002	12,540	18,731	149.4%
2003	16,908	10,994	65.0%
2004	20,579	22,420	108.9%
2005	24,837	20,122	81.0%
2006	13,628	13,765	101.0%
2007	10,830	15,090	139.3%
2008	11,151	14,302	128.3%
2009	16,512	16,308	98.8%
2010	8,147		
2010 YTD (Aug)	8,147	3,970	48.7%
2010 YE Projected	8,147	8,293	101.8%
2011	9,526		

Goal - Installed kW Savings

Year	Goal	Actual	% of Goal Achieved
2000	-	-	0.0%
2001	-	-	0.0%
2002	-	-	0.0%
2003	4,327	3,815	88.2%
2004	5,891	4,180	71.0%
2005	7,102	4,367	61.5%
2006	2,745	4,685	170.7%
2007	2,008	2,622	130.6%
2008	1,975	2,337	118.3%
2009	2,424	2,620	108.1%
2010	988		
2010 YTD (Aug)	988	471	47.7%
2010 YE Projected	988	1,001	101.4%
2011	1,335		

Goal - Lifetime kWh Savings (000's)

Year	Goal	Actual	% of Goal Achieved
2000	165,338	331,701	200.6%
2001	222,225	383,520	172.6%
2002	188,100	280,965	149.4%
2003	253,620	164,910	65.0%
2004	308,699	336,293	108.9%
2005	424,067	343,568	81.0%
2006	217,936	191,708	88.0%
2007	173,054	224,566	129.8%
2008	179,779	203,135	113.0%
2009	248,326	268,292	108.0%
2010	128,227		
2010 YTD (Aug)	128,227	59,249	46.2%
2010 YE Projected	128,227	130,535	101.8%
2011	154,180		

Program Ratios

	\$/kWh		\$/LT kWh		\$/kW	
	Target	Actual	Target	Actual	Target	Actual
2000	\$0.255	\$0.125	\$0.017	\$0.008	\$0	\$0
2001	\$0.156	\$0.090	\$0.010	\$0.006	\$0	\$0
2002	\$0.166	\$0.108	\$0.011	\$0.007	\$0	\$0
2003	\$0.141	\$0.180	\$0.009	\$0.012	\$552	\$518
2004	\$0.114	\$0.090	\$0.008	\$0.006	\$398	\$484
2005	\$0.163	\$0.188	\$0.010	\$0.011	\$570	\$863
2006	\$0.233	\$0.231	\$0.015	\$0.017	\$1,155	\$677
2007	\$0.236	\$0.335	\$0.015	\$0.022	\$1,455	\$1,926
2008	\$0.236	\$0.239	\$0.015	\$0.017	\$1,330	\$1,464
2009	\$0.294	\$0.266	\$0.020	\$0.016	\$2,003	\$1,655
2010	\$0.633		\$0.040		\$5,221	
2010 YTD (Aug)	\$0.633	\$0.513	\$0.040	\$0.034	\$5,221	4,323
2010 YE Projected	\$0.633	\$0.633	\$0.040	\$0.040	\$5,221	\$5,245
2011	\$0.333		\$0.021		\$2,378	

Notes

1. Energy Blueprint includes Motors and Cool Choice for 2003 - 2008
2. Energy Blueprint includes Municipal new construction and equipment replacement in 2005 - 2008

# The United Illuminating Company LF-26 Standard Filing Requirement

## Program Notes - Energy Conscious Blueprint

### Budget(FTE):

- 1) Budget includes 4.34 FTEs for staffing
- 2) 2011 proposed overall budget is 38% decrease compared to the '10 amended (4/2010) budget
- 3) 2011 incentives are basically unchanged; program emphasis will transition to whole building performance
- 4) 2011 custom incentives are re-structured focusing on measure caps and cost containment;

### Goal:

- 1) 2011 target = 113 projects
- 2) 2011 target of 9,525,736 kWh; a increase of approx. 17%
- 3) 2011 target of 1,335 kW; a increase of approx. 35%
- 4) 2011 planning model is based on historical data, program rule changes, baseline changes, and study information
- 5) ECB continues to be negatively impacted by a variety of issues
  - a. adoption of new codes & standards; more stringent baselines; an apparent lack of enforcement for the new code
  - b. economic recession continues to inhibit new construction
- 6) capturing more "lost opportunities" by greater focus on:
  - a. mid-market customers (200-300kW)
  - b. higher levels of building performance and equipment
  - c. process equipment and optimization
  - d. more outreach, training and education
- 7) adopted CL&P gross realization rates to simulate statewide realization rates
- 8) net realization rates capped at 100%

### Cost/kWh (Cost/Unit):

- 1) 2011 projected cost rates are significantly decreased compared to 2010: annual = \$0.333/ kWh, lifetime = \$.021 / kWh
- 2) 2011 projected \$\$/kW = \$2,362
- 3) higher program costs are anticipated due to continued effects of:
  - a. economic recession; negative impacts on the construction market
  - b. adoption of new codes & standards; more stringent baselines (less kWh)
  - c. custom incentives for high performance alternatives
  - d. more outreach, training and education
- 4) ECB will continue to experience greater negative kWh and kW impacts due to:
  - a. economic recession; negative impacts on the construction market
  - b. adoption of new codes & standards; more stringent baselines (less kWh)
  - c. measure life changes per recent studies

### Metric Changes:

- 1) all savings are reported as net values

### Municipal Lost Opportunity Projects (1,2)

Year	Inst. Proj.	kWh savings	kW savings	Incentive	\$\$/ kWh	\$\$/pk kW
2006	19	3,509,369	888	571,600	\$ 0.163	\$ 644
2007	7	1,153,974	120	254,011	\$ 0.220	\$ 2,117
2008	30	3,514,099	683	873,297	\$ 0.249	\$ 1,279
2009	26	5,457,290	1192	1,567,208	\$ 0.287	\$ 1,315
2010 (Aug)	8	2,059,701	333	359,723	\$ 0.175	\$ 1,080

(1) kWh and kW savings are net savings

(2) 2010 installed projects are based on installed and signed projects as of 08/31/10

**YGS Standard Filing Requirement**

**Energy Conscious Blueprint**

<b>Budget Projections</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Budget</b>	
Labor	n/a	n/a	\$ 60,129	\$ 99,846	\$ 120,000	\$ 65,439	\$ 105,439	\$ 212,800	
Outside Service	n/a	n/a	\$ 42,888	\$ 23,331	\$ 70,000	\$ 23,518	\$ 44,318	\$ 81,764	
Materials & Supplies	n/a	n/a	\$ 67	\$ -	\$ 488	\$ -	\$ -	\$ 494	
Incentives	n/a	n/a	\$ 277,680	\$ 674,014	\$ 1,096,512	\$ 336,169	\$ 1,134,254	\$ 1,172,020	
Marketing	n/a	n/a	\$ 3,650	\$ 1,569	\$ 4,875	\$ 6,114	\$ 9,171	\$ 4,810	
Administrative Expense	n/a	n/a	\$ 5,914	\$ 5,746	\$ 8,125	\$ 3,396	\$ 5,093	\$ 8,112	
<b>Total</b>			<b>\$ 390,328</b>	<b>\$ 804,506</b>	<b>\$ 1,300,000</b>	<b>\$ 434,635</b>	<b>\$ 1,298,274</b>	<b>\$ 1,480,000</b>	a

<b>Energy Savings Information</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Goals</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goals</b>	
Annual Energy Savings (ccf Reduction Goal)	n/a	n/a	43,558	112,046	189,646	84,686	126,480	197,858	b
Lifetime Energy Savings (ccf Reduction Goal)	n/a	n/a	670,160	1,770,613	3,012,116	1,482,006	2,213,409	3,032,051	c
Annual Cost Rate (\$/ccf)	n/a	n/a	\$ 8.96	\$ 7.18	\$ 6.85	\$ 5.13	\$ 10.26	\$ 7.48	d=a/b
Lifetime Cost Rate (\$/ccf)	n/a	n/a	\$ 0.58	\$ 0.45	\$ 0.43	\$ 0.29	\$ 0.59	\$ 0.49	e=a/c
Total Gas Benefit	n/a	n/a	\$ 534,945	\$ 1,413,366	2,693,493	\$ 1,325,239	\$ 1,979,273	\$ 2,374,940	f
Total Gas System Benefit-Cost Ratio	n/a	n/a	\$ 1.37	\$ 1.76	\$ 2.07	3.05	1.52	\$ 1.60	g=f/a
Customers Served	n/a	n/a	14	30	77	24	36	52	h
Lifetime Savings per Customer (ccf)	n/a	n/a	47,869	59,020	38,990	61,750	61,750	57,880	i=c/h
Program Cost per Customer	n/a	n/a	\$ 27,881	\$ 26,817	\$ 16,828	\$ 18,110	\$ 36,220	\$ 28,252	k=a/h
Benefit per Customer	n/a	n/a	\$ 38,210	\$ 47,112	\$ 34,866	\$ 55,218	\$ 55,218	\$ 45,336	l=f/h

**Program Costs**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	\$ 292,668	\$ 390,328	133%
2009	\$ 1,300,000	\$ 804,505	62%
2010 YTD (Aug)	n/a	\$ 434,635	-
2010 YE projection	\$ 1,300,000	\$ 1,298,274	100%
2011	\$ 1,480,000	n/a	-

**Goal - Participation/Units**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	14	-
2009	31	30	97%
2010 YTD (Aug)	n/a	24	-
2010 YE projection	77	36	47%
2011	52	n/a	-

**Goal - Annual ccf savings**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	43,558	-
2009	97,628	112,046	115%
2010 YTD (Aug)	n/a	84,686	-
2010 YE projection	189,646	126,480	67%
2011	197,858	n/a	-

**Goal - Lifetime ccf savings**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	670,160	-
2009	1,464,420	1,770,613	121%
2010 YTD (Aug)	n/a	1,482,006	-
2010 YE projection	3,012,116	2,213,409	73%
2011	3,032,051	n/a	-

**CNG Standard Filing Requirement**

**Energy Conscious Blueprint**

<b>Budget Projections</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD(Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Budget</b>	
Labor	n/a	n/a	\$ 42,149	\$ 69,173	\$ 100,000	\$ 43,824	\$ 65,735	\$ 150,290	
Outside Service	n/a	n/a	\$ 33,480	\$ 15,629	\$ 67,471	\$ 16,318	\$ 24,476	\$ 107,507	
Materials & Supplies	n/a	n/a			\$ 307	\$ -	\$ -	\$ 3,150	
Incentives	n/a	n/a	\$ 162,181	\$ 484,854	\$ 682,361	\$ 299,698	\$ 737,975	\$ 870,323	
Marketing	n/a	n/a	\$ 2,952	\$ 831	\$ 3,067	\$ 2,664	\$ 3,996	\$ 3,060	
Administrative Expense	n/a	n/a	\$ 1,144	\$ 1,938	\$ 5,520	\$ 2,061	\$ 3,091	\$ 5,670	
<b>Total</b>			<b>\$ 241,906</b>	<b>\$ 572,425</b>	<b>\$ 858,726</b>	<b>\$ 364,564</b>	<b>\$ 835,274</b>	<b>\$ 1,140,000</b>	<b>a</b>

<b>Energy Savings Information</b>	<b>2007 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Goals</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goals</b>	
Annual Energy Savings (ccf Reduction Goal)	n/a	n/a	24,169	88,706	118,017	50,680	116,116	146,926	b
Lifetime Energy Savings (ccf Reduction Goal)	n/a	n/a	361,044	1,350,926	1,874,444	742,941	1,702,197	2,251,551	c
Annual Cost Rate (\$/ccf)	n/a	n/a	\$ 10.01	\$ 6.45	\$ 7.28	\$ 7.19	\$ 7.19	\$ 7.76	d=a/b
Lifetime Cost Rate (\$/ccf)	n/a	n/a	\$ 0.67	\$ 0.42	\$ 0.46	\$ 0.49	\$ 0.49	\$ 0.51	e=a/c
Total Gas Benefit	n/a	n/a	\$ 288,198	\$ 1,078,357	\$ 1,676,165	\$ 664,352	\$ 1,522,138	\$ 1,763,591	f
Total Gas System Benefit-Cost Ratio	n/a	n/a	\$ 1.19	\$ 1.88	\$ 1.95	1.82	1.82	\$ 1.55	g=f/a
Customers Served	n/a	n/a	9	26	48	16	37	39	h
Lifetime Savings per Customer (ccf)	n/a	n/a	40,116	51,959	39,051	46,434	46,434	57,880	i=c/h
Program Cost per Customer	n/a	n/a	\$ 26,878	\$ 22,016	\$ 17,890	\$ 22,785	\$ 22,785	\$ 29,306	k=a/h
Benefit per Customer	n/a	n/a	\$ 32,022	\$ 41,475	\$ 34,920	\$ 41,522	\$ 41,522	\$ 45,336	l=f/h

**Program Costs**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	\$ 200,584	\$ 241,906	121%
2009	\$ 700,000	\$ 572,425	82%
2010 YTD (Aug)	n/a	\$ 364,564	-
2010 YE projection	\$ 858,726	\$ 835,274	97%
2011	\$ 1,140,000	n/a	-

**Goal - Participation/Units**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	9	-
2009	27	26	96%
2010 YTD (Aug)	n/a	16	-
2010 YE projection	48	37	76%
2011	39	n/a	-

**Goal - Annual ccf savings**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	24,169	-
2009	86,402	88,706	103%
2010 YTD (Aug)	n/a	50,680	-
2010 YE projection	118,017	116,116	98%
2011	146,926	n/a	-

**Goal - Lifetime ccf savings**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	361,044	-
2009	1,296,024	1,350,926	104%
2010 YTD (Aug)	n/a	742,941	-
2010 YE projection	1,874,444	1,702,197	91%
2011	2,251,551	n/a	-

**SCG Standard Filing Requirement**

**Energy Conscious Blueprint**

<b>Budget Projections</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD(Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Budget</b>
Labor	n/a	n/a	\$ 5,462	\$ 30,918	\$ 100,000	\$ 7,639	\$ 40,839	\$ 150,290
Outside Service	n/a	n/a	\$ 1,210	\$ 149	\$ 67,471	\$ 3,362	\$ 25,842	\$ 122,444
Materials & Supplies	n/a	n/a	\$ -	\$ -	\$ 307	\$ -	\$ 307	\$ 324
Incentives	n/a	n/a	\$ 647,077	\$ 571,679	\$ 683,220	\$ 206,134	\$ 781,134	\$ 767,951
Marketing	n/a	n/a	\$ 2,952	\$ 1,144	\$ 3,067	\$ 1,465	\$ 2,489	\$ 3,213
Administrative Expense	n/a	n/a	\$ 142	\$ 1,849	\$ 5,520	\$ 1,317	\$ 3,157	\$ 5,778
Total			\$ 656,843	\$ 605,739	\$ 859,585	\$ 219,916	\$ 853,767	\$ 1,050,000 a

<b>Energy Savings Information</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Goals</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goals</b>
Annual Energy Savings (ccf Reduction Goal)	n/a	n/a	127,002	132,675	118,166	46,764	181,549	129,644 b
Lifetime Energy Savings (ccf Reduction Goal)	n/a	n/a	1,907,123	2,008,951	1,876,804	725,020	2,814,700	1,986,711 c
Annual Cost Rate (\$/ccf)	n/a	n/a	\$ 5.17	\$ 4.57	\$ 7.27	\$ 4.70	\$ 4.70	\$ 8.10 d=a/b
Lifetime Cost Rate (\$/ccf)	n/a	n/a	\$ 0.34	\$ 0.30	\$ 0.46	\$ 0.30	\$ 0.30	\$ 0.53 e=a/c
Total Gas Benefit	n/a	n/a	\$ 1,522,333	\$ 1,603,616	\$ 1,678,275	\$ 578,736	\$ 2,246,793	\$ 1,556,148 f
Total Gas System Benefit-Cost Ratio	n/a	n/a	\$ 2.32	\$ 2.65	\$ 1.95	2.63	2.63	\$ 1.48 g=f/a
Customers Served	n/a	n/a	12	28	48	9	35	34 h
Lifetime Savings per Customer (ccf)	n/a	n/a	158,927	71,748	39,100	80,558	80,558	57,880 i=c/h
Program Cost per Customer	n/a	n/a	\$ 54,737	\$ 21,634	\$ 17,908	\$ 24,435	\$ 24,435	\$ 30,590 k=a/h
Benefit per Customer	n/a	n/a	\$ 126,861	\$ 57,272	\$ 34,964	\$ 64,304	\$ 64,304	\$ 45,336 l=f/h

**Program Costs**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	\$ 174,509	\$ 656,843	376%
2009	\$ 859,585	\$ 605,739	70%
2010 YTD (Aug)	n/a	\$ 219,916	-
2010 YE projection	\$ 859,585	\$ 853,767	99%
2011	\$ 1,050,000	n/a	-

**Goal - Participation/Units**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	12	-
2009	27	28	104%
2010 YTD (Aug)	n/a	9	-
2010 YE projection	48	35	73%
2011	34	n/a	-

**Goal - Annual ccf savings**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	127,002	-
2009	86,402	132,675	154%
2010 YTD (Aug)	n/a	46,764	-
2010 YE projection	118,166	181,549	154%
2011	129,644	n/a	-

**Goal - Lifetime ccf savings**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	1,907,123	-
2009	1,296,024	2,008,951	155%
2010 YTD (Aug)	n/a	725,020	-
2010 YE projection	1,876,804	2,814,700	150%
2011	1,986,711	n/a	-

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## C&I RETROFIT

### Energy Opportunities: (Electric and Natural Gas)

- Objective:** The objective of the Energy Opportunities (“EO”) program is to improve the energy efficiency of a customer’s existing facility by capturing retrofit opportunities. These opportunities are realized by: (1) replacing functioning yet inefficient equipment with high-efficiency equipment; (2) retrofitting existing equipment with energy-saving devices, modifications, or controls; and (3) improving a facility’s performance. EO’s focus regarding retrofit opportunities is to encourage a more “holistic,” comprehensive approach within a facility while improving the overall building performance of the facility.
- Target Market:** The EO program targets commercial, industrial, municipal, and institutional customers who would benefit from retrofit projects in their facilities using Energy Efficiency Fund-approved energy-efficient measures. If market or program needs dictate, the EO program also has the flexibility to target customer segments with unique characteristics and needs not covered by other program offerings.
- Owners and managers of multi-family residential buildings may also participate in the EO program representing a target market that often straddles the eligibility requirements of both C&I and residential program offerings. This customer sector offers opportunities for whole-building-integrated retrofits.
- Program Description:** As mentioned previously, EO’s focus regarding retrofit opportunities is to encourage a more “holistic”, comprehensive approach within a facility while improving the overall building performance of the facility. By integrating natural gas measures into the existing EO program, customers have greater opportunities to implement a more comprehensive package of measures achieving greater energy efficiencies within their facilities.

The services provided through EO are varied and specifically designed to meet the needs of the individual customer. They may include:

- co-funded studies determining cost-effectiveness of potential measures;
- studies qualifying emerging technologies specific to customer initiated projects, and
- financial incentives to customers helping to defray implementation costs.

A retrofit project is defined as one in which a customer voluntarily exchanges or modifies inefficient but functioning equipment with a high-efficiency alternative, resulting in energy bill savings and improved energy efficiency within a facility. Any such new high-efficiency equipment must meet or exceed efficiency standards where applicable.

The Electric and Natural Gas Companies do not have a specific budget set aside for municipal projects, but municipalities are eligible to participate in the EO program and take advantage of the appropriate financing packages. The same programmatic rules apply to municipal customers as they would to other commercial customers. A municipal project's cost-effectiveness and resulting energy savings should be the same as a project for a similar commercial building. It should be noted that since there are no specific goals for municipal projects, the savings are included in the EO goals and cost rates.

Marketing Strategy: As the EO program matures, reliance on contractor-generated marketing to drive customer enrollment will increase. The Electric and Natural Gas Companies may augment enrollment with:

- paid advertising (radio, print and electronic) in broadcast outlets and local and regional business publications targeting building owners, business owners, facility managers and energy managers;

- paid advertising (print and electronic) in local and regional contractor trade journals targeting contractors;
- targeted mailings and e-mail communications of program literature to contractors utilizing association lists, and
- booth presence at strategically selected trade shows.

Where appropriate, the advertising will direct audiences to the Electric and Natural Gas Companies' web sites, the Connecticut's Energy Information web site (CTEnergyInfo.com) and Connecticut's statewide toll-free energy information line (1-877-WISE-USE).

In addition to program-specific promotion, marketing efforts will also include actions intended to support C&I customers and the contractor community, and to further the cause of market transformation. This support may take the form of:

- writing and distributing case studies (also referred to as Success Stories or Testimonials) through various marketing channels;
- promoting Fund-sponsored technical training seminars via e-mail and newsletters;
- hosting contractor meetings, and
- participation in associations through memberships and events.

**Incentive Strategy:**

In 2011, the joint EO program will continue to make use of the most successful retrofit strategies for meeting the needs of the Electric and Natural Gas Companies diverse customer base, including a more comprehensive approach to improving the overall performance of facilities. Over the years, flexibility has proven to be vital for implementing cost-effective, energy-efficient projects in both service territories. The Electric Companies will continue to evaluate market trends and responsiveness, and make adjustments to participation requirements and incentive levels accordingly. Prescriptive and custom incentives will continue to be offered.

The Electric Companies may also employ a maximum incentive caps-per- customer meter and customer Federal Tax ID when necessary to ensure Energy Efficiency Fund dollars are available to a greater number of customers and budgets are appropriately managed.

The Companies will continue to offer prescriptive rebates where applicable for smaller and more typical projects. These rebates are intended to pay prescribed incentives for replacing standard efficiency equipment with high-efficiency alternatives. The rebate process is expedited via a simple form filled out by customers or their contractors. The lighting rebate, for example, is intended to pay prescribed incentives for replacing standard efficiency lighting with energy-efficient lighting equipment/controls.

Custom incentives will continue to be offered by the EO program. These incentives will be applicable to a wide, diverse range of energy-saving technologies. Qualifying projects or Energy Conservation Measures (“ECMs”) earn incentives that represent a percentage of the project costs up to a maximum dollar value based on the kWh and peak kW savings. The percentage and value per kWh and kW saved are set to influence implementation and may vary from year to year. The incentive calculations are based on the following: (a) energy savings (kWh) and peak demand savings (kW); (b) project or ECM cost; (c) the simple payback for ECM; and (d) the measure life.

Goals: Refer to Standard Filing Requirements for program goals.

New Program Issues: Innovative technologies, enhanced and competitive building design and operational practices are constantly on the rise. As such, comprehensive whole- building initiatives, education, financing and incentive transformation must also increase. In order to meet these challenges, Energy Opportunities has to undergo transformation as well, not just offering incentives for singular capital measure installations, but encouraging our customers to consider implementation on a comprehensive or “whole building” as well as building-performance basis. In

addition, EO should help in facilitating or guiding their decision-making process to include consideration of the benefits of financing or performance contracting. Lastly, education must be used to encourage customers to adopt operational best practices or beneficial behavioral changes.

In 2011, the Companies plan to facilitate the acceptance of Performance Contracting as a viable means of implementation and financing. This effort will include but not be limited to a forum of industry experts on Performance Contracting, publicizing what has been happening in the State and around the country, and offering training on Performance Contracting and its Best Practices.

In addition, the program will continue to emphasize the comprehensive approach to achieving energy savings incorporating the lessons learned from previous years. A key lesson from prior year's experience is that going "broader and deeper" to achieve comprehensive savings drives program costs significantly higher.

The Companies will also be exploring ways to encourage greater building performance. At the same time, the Electric Companies continue to review all incentive levels to ensure that they are consistent with current and expected market conditions, customer investment options and approved budgets. **Also, a new incentive cap is proposed which will impose, where practical, published unit cost rate caps (on a cost-per-annual-energy-saved basis along with a cost-per-peak demand-saved basis). This is an effort to provide a higher level of transparency while continuing to better manage project incentive costs.**

To further assist customers, financing options (please refer to the overview sections of Chapter Three and Chapter Five) through third-party financing entities are being investigated by the Electric Companies and the EEB in an effort to offer more options to customers and potentially reduce the cost rate for EO. Financing options are generally expected to take the form of low-interest rate loans.

EO will continue to integrate natural gas measures into the existing program for qualifying customers so that a more comprehensive package of energy-efficiency services can be offered.

To minimize the impact of large incentive dollar value projects on approved budgets, the Natural Gas Companies will continue to exclude natural gas projects with customer incentives in excess of \$100,000 from 2011 C&LM Plan filed natural gas budgets and Projects with customer incentives in excess of \$100,000 will be submitted to the Department for approval.

**UI Specific Issues:** Comprehensive incentives are very powerful tools for achieving savings, but due to their high levels of cost, place a heavy burden on the program budget. A reasonable equilibrium must be met in order to service customers adequately.

### **Connecticut Energy Advisory Board (CEAB)**

The CEAB recently completed its, “2010 Comprehensive Plan for the Procurement of Energy Resources” and listed several recommendations for the Energy Opportunities program (p. 315). These recommendations, which have been reviewed by the Companies and the EEB, are as follows, along with the Companies’ and the EEB’s reactions.

1. Use a negotiated incentive approach for large projects.

Response: With few exceptions, current practice is to provide all customers with equal access and standard incentive structures. Negotiated incentives results in market confusion and/or dissatisfaction in customers familiar with published standard incentive amounts. Negotiated incentives create uncertainty on the part of participants and a reluctance to invest in the engineering and resources needed to define energy efficiency projects and establish energy savings. These efforts generally raise administrative costs for both the program administrators and the customers due to the increased time necessary to

complete and process such negotiations. The EDCs must weigh the benefits of lowering incentives and raising project completion rates against the increased administrative costs, market confusion, and potential loss of good energy savings projects associated with this method.

2. Financial incentive “offer” is a proposal integrating solutions offered by contractors, vendors, banks, leasing companies or other project participants.

Response: Structuring an integrated proposal with “buy in” from each of the individual stakeholder adds time and complexity to the project and requires a broad array of skills and resources, especially when made available to thousands of customers. The administration of this type of approach must be weighted against the benefit. A typical “performance contract” does integrate many of these elements but the sales cycle can be as lengthy as two years. This is a resource and time intensive process. Variable incentives based on assessments of individual customers financial health, corporate investment strategies and requirements, etc., create uncertainty on the part of participants and a reluctance to allocate the necessary resources.

3. Financial incentive based on required cash-flow performance.

Response: The Companies have offered various financing options, through a third-party lender, to their customers with retrofit projects. Initially, the loan packages were offering zero-four percent with a maximum term of up to 5 years, establishing positive cash flow and a maximum subsidized loan amount of \$100,000. In 2010, the low interest option was modified to encourage greater participation. The new package consists of 7 percent subsidized loan options with maximum terms up to 5 years featuring positive cash-flow capabilities, with a subsidized loan range of from \$2,000 to \$100,000. Also in 2010, the Companies offered a modified low-interest package that specifically targeted projects replacing T12 style fluorescent or High Intensity Discharge (HID) lighting systems. If the projects qualifies as a T12/HID, then the package consists of 2.99

percent subsidized loan options with maximum term of 2 years, potential positive cash-flow capabilities, and a subsidized loan range of from \$2,000 to \$100,000. To assist the municipalities, the companies currently offer them 0 percent financing for financed amounts up to \$100,000, with terms up to 48 months and on-bill repayment. The Companies continue to explore financing options that can be made available to participants.

4. Pilot programs in Vermont indicate that this approach can reduce incentives for retrofit projects by 20 - 40 percent.

Response: The Companies continue to explore financing options that can be made available to program participants.

5. Pursue program funding through PACE Bonds.

Response: PACE Bonds must be legislatively enabled at both the State and Municipal levels. A bill proposing such legislation has recently been vetoed by the Governor of Connecticut. However, this might be pursued as an option should it be enabled by future legislation.

However, announcements made during the summer of this year by Fannie Mae and Freddie Mac have essentially put an end to the viability of PACE programs throughout the nation for the foreseeable future. These federal agencies indicated they wouldn't buy mortgages which have a prior lien (i.e., a PACE obligation) that has priority of payment in advance of the mortgage. These two agencies buy approximately 80 percent of all mortgages, and therefore their current decision effectively blocks the entire PACE market. No new PACE bonds have been issued in any state since May of 2010. Thus CT need not explore this option until a resolution of this currently impassable issue is reached on a federal level. DOE is attempting to have on-going negotiations with these two agencies, but there has been no publicly announced progress in the past several months.

6. PACE bond proceeds are lent to property owners to finance retrofits and small renewable systems. Property owners then

repay their loans via an annual assessment on their property bill. If the property is sold prior to the end of the repayment term, the new owner takes over the remaining payments. The long repayment period and transferability of the payments allows property owners to invest in comprehensive energy savings and renewable projects that pay back over a longer time frame. PACE bonds can be issued by municipal financing districts or finance companies.

Response: PACE Bonds would be a difficult application in Connecticut's small to medium sized business sector as many of the projects are in the tenant's name, not the landlord's. Unless the landlord is an on site occupant of the property they have little reason to invest in spaces other than common areas utilizing common systems. The frequent turnover in tenant occupancy also causes complications to the PACE bonds as system needs such as lighting and HVAC may differ.

7. Set levels of calculated incentives and the corresponding interest rates so that the net impact will be a targeted reduction (e.g., 20 percent) in the current full incentive values.

Response: In 2009, the Companies developed a loan package offering zero to four percent with a maximum term of up to 5 years, establishing positive cash flow and a maximum subsidized loan amount of \$100,000. The driving force was to reduce the overall cost to the Energy Efficiency Fund. In each of the loan packages, the customer sacrificed a portion of the cash incentive in favor of a lower rate, creating a project with positive cash flow. Few customers expressed interested in, or took advantage of, this offering.

8. Offer a Standard Offer Performance Contracting Option in the municipal government and educational markets, including colleges & universities, for large projects. Small and medium sized entities could participate through aggregation.

Response: Performance Contracting is already available and utilized to varying degrees by customers. A number of companies offer performance contract options; however, due to

their complexity and the need to have financially stable participants, performance contracts are typically limited to the largest customers. Performance contractors must be financially solvent to be able to take on the risk involved. That element of risk causes contractors to focus only on large customers such as hospitals and municipalities. The state of Connecticut is a prime candidate for energy performance contracting but the enabling legislation for it to occur is still lacking.

9. Standard offer incentive paid on a per kWh basis.

Response: The EDCs are currently evaluating incentives structures that are based on dollar/kWh savings. To provide more program transparency and better information for customers to evaluate their projects, the Companies anticipate publishing specific incentive capping mechanisms based on cents per kWh and/or dollars per kW.

10. Lower incentives can be paid because no upfront capital is required and savings will be guaranteed by the ESCO.

Response: While upfront cash is not necessary, ESCOs do rely on the cash incentive component to reduce total cost. If the incentives are reduced for longer terms of repayment, the sale becomes potentially more difficult, resulting in fewer projects. Small-to-medium-size entities can be aggregated to a degree, but there would be legal details that may block the concept. Municipalities have specific charter rules that dictate how they can operate within a performance contract.

11. Administrative costs will be reduced because the bulk of marketing and customer assistance will be provided by the ESCO.

Response: While performance contracting is being considered as a method of reducing overall costs, in fact, there is typically a 10-20 percent additional administrative cost to the contracting entity.

12. Since every performance contract will include a guarantee of energy savings, have the cost of monitoring to prove such savings borne by the ESCO.

Response: ESCOs structure performance contracts in many different ways. Not all performance contracts are written with a guarantee of savings. The guarantees add increased project costs as the risks are greater. All added costs including administrative costs reduce the potential viability of the performance contract.

## CL&P Standard Filing Requirement

### Energy Opportunities

All dollar values are in \$000

<u>Budget Projections</u>	<u>2008 Actuals</u>	<u>2009 Actuals</u>	<u>Revised 2010 Budget</u>	<u>2010 YTD (Aug)</u>	<u>2010 YE Projected</u>	<u>2011 Budget</u>	<u>2012 Budget</u>
Labor:							
NU Labor	\$ 1,025	\$ 1,209	\$ 1,171	\$ 949	\$ 1,423	\$ 1,813	\$ 1,813
Contractor Staff	\$ 83	\$ 154	\$ 400	\$ 276	\$ 413	\$ 599	\$ 150
Total Labor	\$ 1,108	\$ 1,362	\$ 1,571	\$ 1,224	\$ 1,837	\$ 2,412	\$ 1,963
Materials & Supplies	\$ 6	\$ 4	\$ 29	\$ 9	\$ 14	\$ 20	\$ 15
Outside Services	\$ 129	\$ 137	\$ 825	\$ 158	\$ 500	\$ 500 a)	\$ 330
Incentives	\$ 28,128	\$ 8,580	\$ 20,233	\$ 13,972	\$ 15,035	\$ 9,477	\$ 6,958
Marketing	\$ 43	\$ 23	\$ 300	\$ 120	\$ 181	\$ 164 b)	\$ 122
Administrative Expenses	\$ 117	\$ 75	\$ 160	\$ 43	\$ 64	\$ 125 c)	\$ 93
Other	\$ 36	\$ 50	\$ 32	\$ 19	\$ 29	\$ 18	\$ 13
Total	\$ 29,567	\$ 10,231	\$ 23,150	\$ 15,547	\$ 17,660	\$ 12,716	\$ 9,496

a) Includes consultant fees for focused studies, system modeling and QA/QC.

b) Includes marketing to customers, trade allies and engineering firms through general awareness campaigns, print advertisements, leave-behind brochures and trade shows.

c) Employee expenses including mileage, training, conference attendance and misc.

### 2011 Goals and Metrics Information

	<u>Program Total</u>	<u>Municipal</u>
Demand Savings (kW Reduction Goal)	4,710	330
Annual Energy Savings (kWh Reduction Goal)	35,994,650	2,522,626
Lifetime Energy Savings (kWh Reduction Goal)	439,700,985	30,815,717
Annual Cost Rate (\$/kWh)	\$ 0.353	\$ 0.353
Lifetime Cost Rate (\$/kWh)	\$ 0.029	\$ 0.029
Electric b/c Ratio	3.35	3.35
Total Resource b/c Ratio	2.10	2.10

## CL&P Standard Filing Requirement

### Energy Opportunities

Year	Budget	Program Costs		% of Budget	\$/LT-kWh
		Actual			
2006 Revised	\$ 8,085,177	\$ 9,081,115		112%	0.005
2007 Revised	\$ 10,009,000	\$ 22,928,130		229%	0.016
2008 Revised	\$ 31,695,999	\$ 29,565,748		93%	0.024
2009 Revised	\$ 11,724,000	\$ 10,231,492		87%	0.017
2010 Revised	\$ 23,149,500	n/a		n/a	n/a
2010 YTD (Aug)	n/a	\$ 15,546,932		67%	0.046
2010 Y/E Projected	n/a	\$ 17,659,666		76%	0.021
2011	\$ 12,715,955	n/a		n/a	n/a

Year	Goal - Participation		
	Goal	Actual	% of Goal
2006 Revised	686	559	81%
2007 Revised	854	637	93%
2008 Revised	1,464	577	84%
2009 Revised	400	670	167%
2010 Revised	483	n/a	n/a
2010 YTD (Aug)	n/a	391	81%
2010 Y/E Projected	n/a	587	121%
2011	547	n/a	n/a

Goal - Lifetime MWh Savings				Goal - Installed kW Savings			
Year	Budget	Actual	% of Budget	Year	Goal	Actual	% of Goal
2006 Revised	1,060,246	1,664,677	157%	2006 Revised	9,277	15,295	165%
2007 Revised	677,071	1,466,673	217%	2007 Revised	7,659	17,675	231%
2008 Revised	1,248,140	1,227,472	98%	2008 Revised	16,892	14,859	88%
2009 Revised	1,054,932	587,158	56%	2009 Revised	10,486	6,017	57%
2010 Revised	1,011,392	n/a	n/a	2010 Revised	13,030	n/a	n/a
2010 YTD (Aug)	n/a	341,471	34%	2010 YTD (Aug)	n/a	3,691	28%
2010 Y/E Projected	n/a	837,753	83%	2010 Y/E Projected	n/a	10,085	77%
2011	439,701	n/a	n/a	2011	4,710	n/a	n/a

Year	Program Ratios		Program Ratios	
	\$/Lifetime kWh		\$/Annualized kW	
	Plan	Actual	Plan	Actual
2006 Revised	0.008	0.005	872	594
2007 Revised	0.015	0.016	1,307	1,297
2008 Revised	0.025	0.024	1,876	1,990
2009 Revised	0.011	0.017	1,118	1,700
2010 Revised	0.023	n/a	1,777	n/a
2010 YTD (Aug)	n/a	0.046	n/a	4,212
2010 Y/E Projected	n/a	0.021	n/a	1,751
2011	0.029	n/a	2,700	n/a

## CL&P Standard Filing Requirement

### Energy Opportunities

#### CL&P Program Notes

##### Budget/FTE

13.6 FTEs for Program Administration, Inspections, etc.

##### Goal

Demand Savings (kW Reduction Goal)	4,710
Lifetime Energy Savings (kWh Reduction Goal)	439,700,985

##### Cost/kWh (Cost/Unit)

\$/Annualized kW	\$	2,700
\$/Lifetime kWh	\$	0.029

##### Goal Setting Methodology

The 2011 planning model is based on 2009 actual results from similar projects and program rule changes.

##### Metric Changes

None

**The United Illuminating Company**  
**EL-25 Standard Filing Requirement**  
**2011**

**Energy Opportunities** <sup>(1, 2)</sup>

**Baseline Assumptions:**

<b>Budget Projections</b>	Retrofit program for C&I customers > 200 kW					
	<u>2009 Act</u>	<u>2010 Revised Bud</u>	<u>2010 YTD (Aug)</u>	<u>2010 YE Projected</u>	<u>2011 Bud</u>	<u>2012 Bud</u>
Market						
Labor						
UI Labor	\$ 497,501	\$ 527,520	\$ 332,522	\$ 527,520	\$ 533,287 a)	\$ 559,951
Contractor Staff	\$ -	\$ 30,000	\$ -	\$ -	\$ 15,000 b)	\$ 15,000
Total Labor	\$ 497,501	\$ 557,520	\$ 332,522	\$ 527,520	\$ 548,287	\$ 574,951
Materials & Supplies	\$ 387	\$ 3,100	\$ 2,767	\$ 3,100	\$ 3,100 c)	\$ 3,100
Outside Services	\$ 28,954	\$ 197,000	\$ 132,275	\$ 197,000	\$ 135,000 d)	\$ 88,491
Incentives	\$ 4,159,022	\$ 3,340,434	\$ 4,252,688	\$ 4,252,688	\$ 2,234,043 e)	\$ 1,529,946
Marketing	\$ 47,075	\$ 70,000	\$ 45,743	\$ 45,743	\$ 48,000 f)	\$ 31,464
Other	\$ 472	\$ 3,585	\$ 2,382	\$ 3,585	\$ 3,000 g)	\$ 3,000
Administrative Expenses	\$ 55,682	\$ 180,000	\$ 74,455	\$ 105,000	\$ 172,920 h)	\$ 172,920
Total	\$ 4,789,093	\$ 4,351,639	\$ 4,842,832	\$ 5,134,636	\$ 3,144,350	\$ 2,403,872

(1) EO includes the C&I Loan Program

(2) EO includes the Express Lighting Rebate

- a) 4.44 FTEs
- b) temporary contract services
- c) no comment
- d) Consultant / engineering / audit services
- e) Customer incentives
- f) Brochure revision, selected advertising, public relations, etc.
- g) no comment
- h) Financing interest, employee training, mileage, etc.

**Goals and Metrics Information:**

	<u>2011</u>
<b>Savings</b>	
Demand Savings (kW)	1,204
Annual Energy Savings (kWh)	8,242,181
Lifetime Energy Savings (kWh)	103,793,257
Annual Cost Rate (\$/kWh)	\$ 0.381
Lifetime Cost Rate (\$/kWh)	\$ 0.030
Cost per kW	\$ 2,611
Electric System B/C Ratio	3.17
Total Resource B/C Ratio	2.01

**The United Illuminating Company  
LF-26 Standard Filing Requirement**

**Energy Opportunities (1)**

**Goal - Program Costs (000's)**

Year	Budget	Actual	% of Goal
			Achieved
2000	\$2,559	\$3,006	117.5%
2001	\$5,165	\$3,401	66.3%
2002	\$2,350	\$1,271	54.1%
2003	\$2,315	\$1,169	61.5%
2004	\$2,207	\$2,259	102.4%
2005	\$2,800	\$3,917	139.9%
2006	\$2,050	\$2,977	145.2%
2007	\$1,932	\$5,843	302.4%
2008	\$3,172	\$3,119	98.3%
2009	\$5,611	\$4,789	85.4%
2010	\$4,301		
2010 YTD (Aug)	\$4,301	\$4,843	112.6%
2010 YE Projected	\$4,301	\$5,135	119.4%
2011	\$3,144		

**Goal - Installed kWh Savings (000's)**

Year	Goal	Actual	% of Goal
			Achieved
2000	9,854	19,863	201.6%
2001	29,321	25,592	87.3%
2002	9,897	13,156	132.9%
2003	18,727	11,929	63.7%
2004	17,699	18,591	105.0%
2005	21,785	24,167	110.9%
2006	11,896	20,704	174.0%
2007	11,070	21,574	194.9%
2008	17,028	20,668	121.4%
2009	25,725	18,129	70.5%
2010	14,967		
2010 YTD (Aug)	14,967	9,356	62.5%
2010 YE Projected	14,967	14,967	100.0%
2011	8,242		

**Goal - Installed kW Savings**

Year	Goal	Actual	% of Goal
			Achieved
2000	-	-	0.0%
2001	-	-	0.0%
2002	-	-	0.0%
2003	3,960	2,191	55.3%
2004	4,443	3,180	71.6%
2005	4,966	3,850	77.5%
2006	2,191	3,345	152.7%
2007	1,759	3,993	227.0%
2008	2,661	3,530	132.7%
2009	3,840	2,977	77.5%
2010	2,013		
2010 YTD (Aug)	2,013	1,244	61.8%
2010 YE Projected	2,013	2,019	100.3%
2011	1,204		

**Goal - Lifetime kWh Savings (000's)**

Year	Goal	Actual	% of Goal
			Achieved
2000	147,813	280,874	190.0%
2001	433,695	383,196	88.4%
2002	146,823	190,038	129.4%
2003	280,905	178,935	63.7%
2004	265,488	278,872	105.0%
2005	368,721	409,048	110.9%
2006	183,442	310,557	169.3%
2007	140,313	291,700	207.9%
2008	221,498	272,595	123.1%
2009	345,264	233,761	67.7%
2010	186,728		
2010 YTD (Aug)	186,728	117,605	63.0%
2010 YE Projected	186,728	186,728	100.0%
2011	103,793		

**Program Ratios**

Year	\$/kWh		\$/LT kWh		\$/kW	
	Target	Actual	Target	Actual	Target	Actual
2000	\$0.260	\$0.151	\$0.017	\$0.011	\$0	\$0
2001	\$0.176	\$0.134	\$0.012	\$0.009	\$0	\$0
2002	\$0.237	\$0.103	\$0.016	\$0.007	\$0	\$0
2003	\$0.124	\$0.119	\$0.008	\$0.008	\$585	\$534
2004	\$0.125	\$0.122	\$0.008	\$0.008	\$497	\$710
2005	\$0.129	\$0.162	\$0.008	\$0.010	\$564	\$1,017
2006	\$0.172	\$0.144	\$0.011	\$0.010	\$936	\$890
2007	\$0.175	\$0.271	\$0.014	\$0.020	\$1,098	\$1,463
2008	\$0.186	\$0.151	\$0.014	\$0.011	\$1,192	\$884
2009	\$0.218	\$0.264	\$0.016	\$0.020	\$1,461	\$1,609
2010	\$0.287		\$0.023		\$2,137	
2010 YTD (Aug)	\$0.287	\$0.518	\$0.023	\$0.041	\$2,137	\$3,893
2010 YE Projected	\$0.287	\$0.343	\$0.023	\$0.027	\$2,137	\$2,543
2011	\$0.381		\$0.030		\$2,611	

Notes

1. 2000-2002 data from LF-26 filed in 03-01-01
2. '03 data reflects budgets approved in 03-01-01
3. '04 data represents the revised budget allocations
4. '02-'03 Energy Opportunities included RFP and O&M RFP numbers
5. '05-'06 EO budget & goal includes potential measures from Retro-Commissioning & other O&M RFP subprograms
6. Energy Opportunities includes Municipal retrofit projects in 2006 - 2008
7. accelerated chiller carryover projected at 1 projects, accounting for 10% of the expenditures and 3% of the kWh and kW savings
8. Starting in 2009 EO includes C&I Loan Program

# The United Illuminating Company LF-26 Standard Filing Requirement

## Program Notes - Energy Opportunities

### Budget/(FTE):

- 1) Budget includes 4.44 FTEs for staffing
- 2) 2011 proposed overall budget is a 27% decrease compared to the '10 revised (4/2010) budget
- 3) 2011 incentives include re-structured incentives focusing on measure caps and cost containment;
- 4) 2011 incentives include a re-structured comprehensive initiative with incentives up to 50% of the total cost
- 5) Project financing costs reduce available incentive funds

### Goal:

- 1) 2011 target = 96 installed projects with 8% being comprehensive (approx 6-10)
- 2) 2011 target of 8,242,181 kWh; a decrease of approx. 44%
- 3) 2011 target of 1,204 kW; a decrease of approx. 40%
- 4) 2011 planning model is based on historical data, program rule changes
- 5) Targets impacted by high costs of comprehensive projects
- 6) Targets impacted by modified coincidence factors, realization rates, and measure life
- 7) net realization rates capped at 100%
- 8) capture more retrofit opportunities by greater focus on:
  - a. non participants
  - b. increased comprehensiveness per project
  - c. process equipment and system optimization
  - d. higher performance alternatives
  - e. more outreach and training

### Cost/kWh (Cost/Unit):

- 1) 2011 projected cost rates: annual = \$0.381/ kWh, 4% more cost than 2010 projected cost rate; lifetime = \$.030/ kWh;
- 2) 2011 projected \$\$/kW = \$2,611; 6% less than the 2010 projected cost rate
- 3) program costs will remain elevated due to:
  - a. increased incentive costs to overcome a sluggish economy
  - b. increased incentive costs for emerging LED and induction lighting technologies
  - c. increased incentive costs from a continued comprehensive effort
  - d. more outreach, training and education
- 4) EO will experience negative kWh and kW impacts due to:
  - a. coincidence factors modified per recent studies
  - b. net realization rates applied in accordance with recent studies
  - c. measure life changes per recent studies

### Metric Changes:

- 1) all savings are reported as net values

### Municipal Retrofit Projects (1,2,3,4)

Year	Install Proj.	kWh savings	kW savings	Incentive	\$\$/ kWh	\$\$/pk kW
2006	51	4,508,755	1,124	1,219,007	\$ 0.270	\$ 1,085
2007	44	3,393,721	714	773,662	\$ 0.228	\$ 1,084
2008	59	5,155,819	978	1,179,436	\$ 0.229	\$ 1,206
2009	62	5,150,641	975	1,208,149	\$ 0.235	\$ 1,239
2010 (Aug)	39	4,311,442	897	2,023,722	\$ 0.469	\$ 2,256

- (1) includes traffic signals
- (2) kWh and kW savings are net savings
- (3) 2010 installed projects are based on installed and signed projects as of 08/31/10
- (4) 2010 installed projects include 8 gas projects

**YGS Standard Filing Requirement**

**Energy Opportunities**

<b>Budget Projections</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD(Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Budget</b>	
Labor	n/a	n/a	\$ 23,618	\$ 27,254	\$ 64,800	\$ 31,649	\$ 53,249	\$ 107,730	
Outside Service	n/a	n/a	\$ 17,551	\$ 32,387	\$ 44,280	\$ 5,351	\$ 19,751	\$ 52,268	
Materials & Supplies	n/a	n/a	\$ 443		\$ 330	\$ -	\$ 120	\$ 360	
Incentives	n/a	n/a	\$ 3,934	\$ 979,355	\$ 770,700	\$ 190,037	\$ 595,957	\$ 851,722	
Marketing	n/a	n/a	\$ 1,771	\$ 2,796	\$ 3,295	\$ 12,819	\$ 19,228	\$ 3,060	
Administrative Expense	n/a	n/a	\$ 1,967	\$ 3,494	\$ 6,595	\$ 1,513	\$ 2,270	\$ 4,860	
Total			\$ 49,283	\$ 1,045,286	\$ 890,000	\$ 241,369	\$ 690,575	\$ 1,020,000	a

<b>Energy Savings Information</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Goals</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goals</b>	
Annual Energy Savings (ccf Reduction Goal)	n/a	n/a	17,218	639,931	435,940	72,528	207,509	548,792	b
Lifetime Energy Savings (ccf Reduction Goal)	n/a	n/a	191,374	9,216,030	6,693,658	881,471	2,521,961	7,765,169	c
Annual Cost Rate (\$/ccf)	n/a	n/a	\$ 2.86	\$ 1.63	\$ 2.04	\$ 3.33	\$ 3.33	\$ 1.86	d=a/b
Lifetime Cost Rate (\$/ccf)	n/a	n/a	\$ 0.26	\$ 0.11	\$ 0.13	\$ 0.27	\$ 0.27	\$ 0.13	e=a/c
Total Gas Benefit	n/a	n/a	\$ 163,130	\$ 7,855,892	\$ 5,845,143	\$ 769,732	\$ 2,202,267	\$ 6,112,362	f
Total Gas System Benefit-Cost Ratio	n/a	n/a	\$ 3.31	\$ 7.52	\$ 6.57	3.19	3.19	\$ 5.99	g=f/a
Customers Served	n/a	n/a	2	18	51	14	40	31	h
Lifetime Savings per Customer (ccf)	n/a	n/a	95,687	512,002	131,248	62,962	62,962	248,544	i=c/h
Program Cost per Customer	n/a	n/a	\$ 24,642	\$ 58,071	\$ 17,451	\$ 17,241	\$ 17,241	\$ 32,648	k=a/h
Benefit per Customer	n/a	n/a	\$ 81,565	\$ 436,438	\$ 114,611	\$ 54,981	\$ 54,981	\$ 195,642	l=f/h

**Program Costs**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	\$ 539,535	\$ 49,283	9%
2009	\$ 890,000	\$ 1,045,286	117%
2010 YTD (Aug)	n/a	\$ 241,369	-
2010 YE projection	\$ 890,000	\$ 690,575	78%
2011	\$ 1,020,000	n/a	-

**Goal - Participation/Units**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	2	-
2009	30	18	60%
2010 YTD (Aug)	n/a	14	-
2010 YE projection	51	40	79%
2011	31	n/a	-

**Goal - Annual ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	17,218	-
2009	158,038	639,931	405%
2010 YTD (Aug)	n/a	72,528	-
2010 YE projection	435,940	207,509	48%
2011	548,792	n/a	-

**Goal - Lifetime ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	191,374	-
2009	1,738,420	9,216,030	530%
2010 YTD (Aug)	n/a	881,471	-
2010 YE projection	6,693,658	2,521,961	38%
2011	7,765,169	n/a	-

**CNG Standard Filing Requirement**

**Energy Opportunities**

<b>Budget Projections</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Budget</b>	
Labor	n/a	n/a	\$ 6,918	\$ 16,048	\$ 55,000	\$ 20,509	\$ 30,763	\$ 71,820	
Outside Service	n/a	n/a	\$ 8,867	\$ 10,446	\$ 36,090	\$ 5,796	\$ 8,894	\$ 66,974	
Materials & Supplies	n/a	n/a	\$ -	\$ -	\$ 167	\$ -	\$ -	\$ 198	
Incentives	n/a	n/a	\$ 400	\$ 113,156	\$ 403,310	\$ 106,483	\$ 442,623	\$ 613,028	
Marketing	n/a	n/a	\$ 795	\$ 635	\$ 1,671	\$ 6,328	\$ 9,491	\$ 1,980	
Administrative Expense	n/a	n/a	\$ 151	\$ 106	\$ 5,013	\$ 374	\$ 562	\$ 6,000	
Total			\$ 17,131	\$ 140,392	\$ 501,251	\$ 139,489	\$ 492,133	\$ 760,000	a

<b>Energy Savings Information</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goals</b>	
Annual Energy Savings (ccf Reduction Goal)	n/a	n/a	5,647	71,813	228,129	25,035	88,326	394,994	b
Lifetime Energy Savings (ccf Reduction Goal)	n/a	n/a	56,465	831,786	3,502,815	425,783	1,502,209	5,588,992	c
Annual Cost Rate (\$/ccf)	n/a	n/a	\$ 3.03	\$ 1.95	\$ 2.20	\$ 5.57	\$ 5.57	\$ 1.92	d=a/b
Lifetime Cost Rate (\$/ccf)	n/a	n/a	\$ 0.30	\$ 0.17	\$ 0.14	\$ 0.33	\$ 0.33	\$ 0.14	e=a/c
Total Gas Benefit	n/a	n/a	\$ 48,132	\$ 709,028	\$ 3,058,784	\$ 371,809	\$ 1,311,782	\$ 4,399,381	f
Total Gas System Benefit-Cost Ratio	n/a	n/a	\$ 2.81	\$ 5.05	6.10	2.67	\$ 2.67	\$ 5.79	g=f/a
Customers Served	n/a	n/a	2	12	27	6	21	22	h
Lifetime Savings per Customer (ccf)	n/a	n/a	28,233	69,316	132,045	70,964	70,964	248,544	i=c/h
Program Cost per Customer	n/a	n/a	\$ 8,566	\$ 11,699	\$ 18,896	\$ 23,248	\$ 23,248	\$ 33,797	k=a/h
Benefit per Customer	n/a	n/a	\$ 24,066	\$ 59,086	\$ 115,307	\$ 61,968	\$ 61,968	\$ 195,642	l=f/h

**Program Costs**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	400,775	\$ 17,131	4%
2009	\$ 300,000	\$ 140,392	47%
2010 YTD (Aug)	n/a	\$ 501,251	-
2010 YE projection	\$ 501,251	\$ 139,489	28%
2011	\$ 760,000	n/a	-

**Goal - Participation/Units**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	2	-
2009	17	12	71%
2010 YTD (Aug)	n/a	6	-
2010 YE projection	27	21	80%
2011	22	n/a	-

**Goal - Annual ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	5,647	-
2009	88,671	71,813	81%
2010 YTD (Aug)	n/a	25,035	-
2010 YE projection	228,129	88,326	39%
2011	394,994	n/a	-

**Goal - Lifetime ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	56,465	-
2009	975,385	831,786	85%
2010 YTD (Aug)	n/a	425,783	-
2010 YE projection	3,502,815	1,502,209	43%
2011	5,588,992	n/a	-

**SCG Standard Filing Requirement**

**Energy Opportunities**

<b>Budget Projections</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD(Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Budget</b>	
Labor	n/a	n/a	\$ 4,113	\$ 4,141	\$ 55,000	\$ 3,838	\$ 5,756	\$ 71,820	
Outside Service	n/a	n/a	\$ 1,198	\$ 1,236	\$ 36,090	\$ 923	\$ 1,385	\$ 84,583	
Materials & Supplies	n/a	n/a	\$ -	\$ -	\$ 167	\$ -	\$ -	\$ 228	
Incentives	n/a	n/a	\$ 54,060	\$ 179,427	\$ 345,809	\$ 35,768	\$ 427,493	\$ 534,333	
Marketing	n/a	n/a	\$ 800	\$ 526	\$ 1,671	\$ 5,539	\$ 8,308	\$ 2,256	
Administrative Expense	n/a	n/a	\$ 159	\$ 44	\$ 5,013	\$ 120	\$ 180	\$ 6,780	
<b>Total</b>			<b>\$ 60,330</b>	<b>\$ 185,374</b>	<b>\$ 443,750</b>	<b>\$ 46,188</b>	<b>\$ 443,123</b>	<b>\$ 700,000</b>	a

<b>Energy Savings Information</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Goals</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goals</b>	
Annual Energy Savings (ccf Reduction Goal)	n/a	n/a	13,025	30,977	195,604	13,622	195,327	344,288	b
Lifetime Energy Savings (ccf Reduction Goal)	n/a	n/a	195,375	629,418	3,003,409	161,297	2,999,163	4,871,525	c
Annual Cost Rate (\$/ccf)	n/a	n/a	\$ 4.63	\$ 5.98	\$ 2.27	\$ 3.39	\$ 2.27	\$ 2.03	d=a/b
Lifetime Cost Rate (\$/ccf)	n/a	n/a	\$ 0.31	\$ 5.98	\$ 0.15	\$ 0.29	\$ 0.15	\$ 0.14	e=a/c
Total Gas Benefit	n/a	n/a	\$ 166,541	\$ 536,526	\$ 1,678,275	\$ 90,131	\$ 1,675,902	\$ 3,834,626	f
Total Gas System Benefit-Cost Ratio	n/a	n/a	\$ 2.76	\$ 2.89	\$ 3.78	\$ 1.95	\$ 3.78	\$ 5.48	g=f/a
Customers Served	n/a	n/a	1	2.00	23	3	23	20	h
Lifetime Savings per Customer (ccf)	n/a	n/a	195,375	\$ 4,917	130,583	53,766	130,583	248,544	i=c/h
Program Cost per Customer	n/a	n/a	\$ 60,330	\$ 1,448	\$ 19,293	\$ 15,396	\$ 19,293	\$ 35,714	k=a/h
Benefit per Customer	n/a	n/a	\$ 166,541	\$ 4,192	\$ 72,968	\$ 30,044	\$ 72,968	\$ 195,642	l=f/h

**Program Costs**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	\$ 361,197	\$ 60,330	17%
2009	\$ 300,000	\$ 185,374	62%
2010 YTD (Aug)	n/a	\$46,187.78	-
2010 YE projection	\$ 443,750	\$ 443,123	100%
2011	\$ 700,000	n/a	-

**Goal - Participation/Units**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	1	-
2009	17	2	12%
2010 YTD (Aug)	n/a	3	-
2010 YE projection	23	23	100%
2011	20	n/a	-

**Goal - Annual ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	13,025	-
2009	88,671	30,977	35%
2010 YTD (Aug)	n/a	13,622	-
2010 YE projection	195,604	195,327	100%
2011	344,288	n/a	-

**Goal - Lifetime ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	195,375	-
2009	975,385	629,418	65%
2010 YTD (Aug)	n/a	161,297	-
2010 YE projection	3,003,409	2,999,163	100%
2011	4,871,525	n/a	-

## Small Business Energy Advantage (Electric)

**Objective:** The objective of the Small Business Energy Advantage (“SBEA”) program is to provide cost-effective, turnkey C&LM services for small business customers.

**Target Market:** All C&I customers, with an average 12-month peak demand up to 200 kW in are eligible for this program.

**Program Description:** The Electric Companies through a network of approved contractors provide direct or turnkey services to maximize energy-efficiency operations for customers. These direct services include energy assessments and installation of measures.

As financial constraints are one of the primary barriers for this market, usually there are no up-front customer costs. The Electric Companies pay incentives for relevant energy-efficiency measures within cost-effectiveness constraints, and offer an interest-free financing option to credit-qualifying customers for the balance. Financing will appear as a line item on the customer’s bill. The loan repayment term, which is determined by the simple payback of the project, is set at a level which normally provides the customer with a positive annual cash flow based upon the estimated energy savings resulting from the installed measures.

The SBEA program also includes an educational component to inform small business customers of the benefits that can be achieved through energy-efficiency efforts.

**Marketing Strategy:** Many of the SBEA contractors have a dedicated sales force prospecting and cold-calling on potential leads. The Electric Companies provide these contractors with marketing collateral such as brochures, cut sheets and case studies to drive customer enrollment.

The Electric Companies may augment contractor enrollment with:

- paid advertising (radio, print and electronic) in broadcast outlets, local business publications and Chamber of Commerce directories targeting business owners and directing readers to the Electric Companies' web sites and to CTEnergyInfo.com.;
- direct mail campaigns to customers who have yet to participate, and;
- presence at strategically selected business expos and trade shows.

In addition to specific program promotion, marketing efforts will also include actions intended to support small business customers and the contractor community, and to facilitate market transformation. This support may take the form of:

- project leave-behinds summarizing what was done so employees at the location will understand the benefits of energy efficiency and can act as ambassadors of change outside of their work environment;
- writing and distributing case studies to various marketing channels;
- direct mail;
- promotion of Fund-sponsored technical training seminars via e-mail and newsletters;
- hosting quarterly update and training meetings for the SBEA contractors, and;
- participation with Chambers of Commerce, town officials, trade groups and the Connecticut Department of Economic and Community Development through memberships, joint projects and events.

Incentive Strategy: Incentives for lighting and other energy-efficiency measures are prescriptive and capped within cost-effectiveness constraints. In some instances, incentives for lighting as well as non-lighting measures are custom-designed within these constraints. The Electric Companies will continue to evaluate market trends and responsiveness, and make adjustments to participation requirements and incentive levels accordingly.

Interest-free financing, as described in the C&LM Financing section, is offered with this program, to qualified customers, as an additional incentive to facilitate implementation.

The following example illustrates the incentive breakdown for an actual 2010 comprehensive SBEA project done by a commercial customer with an average monthly demand of 14 kW. The installed measures included 4 ft., 32W T8 fixture retrofits, pulse start HID fixtures, evaporator fan controls, door-heater controls, evaporator fan motor replacements, vending-unit night-setback controls, and refrigerator LED fixtures.

Total project cost (including sales tax)	\$ 17,176.88
Lighting incentive	\$ 3,704.08
Comprehensive bonus	\$ 1,700.04
Refrigeration incentive	\$ 2,769.16
Net cost to customer (including sales tax)	\$ 9,003.60
Estimated annual energy savings	\$ 4,501.80
Estimated monthly energy savings	\$ 375.15
Monthly payment (0 percent @ 25 months)	\$ 360.14

Once the loan is repaid, the customer experiences the benefits of future energy savings through lower electric bills. The Electric Companies provide oversight at each step of the process to ensure the customer is well-informed and satisfied with the final installation.

Goals: Refer to Standard Filing Requirements for program goals.

New Program Issues: The Electric Companies are continually looking to expand the list of eligible cost-effective energy-efficient measures, including air compressors, variable frequency drives and Solid State Lighting applications. In addition, the Electric Companies will continue to work to incorporate comprehensiveness into projects as well as working with the LDCs to incorporate natural gas savings measures. At the same time, the Electric Companies are reviewing incentive levels to ensure that they are consistent with current and expected market conditions and customer investment options. Also, a new incentive cap is proposed which will impose, where practical, published unit cost rate caps (on a cost-per-annual-energy-saved basis along with a cost-per-peak demand-saved basis). This is an effort to provide a higher level of transparency while continuing to better manage project incentive costs. The Electric Companies will be entering a competitive bid process in late 2011 for SBEA vendors for the 2011 and 2012 program years. A continued aspect of the process will be evaluating each vendor's ability to produce comprehensive projects.

In addition to the interest-free financing program for SBEA customers, the Electric Companies and the EEB have developed financing options (please refer to the overview sections of Chapter 3 and Chapter 5) through a third-party financing entity in an effort to offer more options to customers and potentially reduce the cost rate. Financing options are generally expected to take the form of zero or low-interest rate loans. A customer that does not qualify for financing through the SBEA program may be eligible for these alternative financing options.

The Companies will continue to explore further opportunities to work with a variety of urban initiatives, such as, but not limited to, Empowerment New Haven and Spanish American Merchants Association. Partnering with these initiatives may be useful in overcoming a variety of obstacles, such as minimizing any ethnic and language barriers along with attracting local contractors who are easily recognizable in inner-city neighborhoods/areas. In an effort to minimize potential

language barriers, The Companies promote SBEA vendors that actively recruit bilingual representatives.

In August of 2010, the companies introduced an energy equipment tracking survey form based on the Final Decision in Docket #09-10-03 which required the companies to train vendors to record the type and vintage of the significant energy consuming equipment used by SBEA customers and to develop a database for vendors to record this information to be used for referrals to the EO program. Additionally, the form was integrated into the Companies tracking and reporting systems in order to meet the database requirements of the Final Decision.

**CL&P Specific Issues:** CL&P will have a competitive bid process in 2011 to select SBEA contractors to provide services for the 2012 and 2013 program. A total of 18 contractors will be selected and CL&P will continue to monitor contractor performance and make adjustments as necessary.

**UI Specific Issues:** For 2011, UI will be raising the eligibility criteria to include customers with an average 12-month peak demand up to 200 kW. This modification not only improves consistency between the program offerings throughout the State, but also offers our customers a means to implement additional energy efficiency measures. As in the past, customers not eligible for the SBEA program will be referred to EO.

### **Connecticut Energy Advisory Board (CEAB)**

The Connecticut Energy Advisory Board (CEAB) recently completed its, “2010 Comprehensive Plan for the Procurement of Energy Resources” and listed several recommendations (on p. 316) for the Small Business Energy Advantage program. The recommendations are listed below with administrator responses.

1. Pursue program funding through PACE bonds.

Response: PACE Bonds must be legislatively enabled at both the State and Municipal levels. A bill proposing such legislation has recently been vetoed by the Governor of Connecticut which at a minimum causes a delay, though it does not prevent future adoption of such legislation.

2. PACE bond proceeds can be lent to property owners to finance energy retrofits and small renewable systems. Property owners can then repay their loans via an annual assessment on their property tax bill. If the property is sold prior to the end of the repayment term, the new owner takes over the remaining payments. The long repayment period and transferability of the payments would allow property owners to invest in comprehensive energy savings and renewable projects that pay them back over a longer time frame. PACE bonds can be issued by municipal financing districts or finance companies.

Response: PACE Bonds would be a difficult application in Connecticut's small business sector. Currently, the majority of SBEA projects are in the tenant's name, not the landlord's. It is difficult enough contacting the business owners. In addition, small businesses often are apt to undergo changes that would present further complications

3. Increase interest rates from 1 to 3 percent, depending on the measures and payback, and extend terms to achieve positive cash flow.

Response: Currently, the Companies offer zero percent financing. Any higher percentage would be less appealing. Small business customers are culturally diverse and present the major challenge of language barriers.

## CL&P Standard Filing Requirement

### Small Business Energy Advantage

All dollar values are in \$000

Customers with a 200kW demand or less or State Building projects.

<b>Budget Projections</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>Revised 2010 Budget</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projected</b>	<b>2011 Budget</b>	<b>2012 Budget</b>
Labor							
NU Labor	\$ 531	\$ 571	\$ 800	\$ 415	\$ 623	\$ 841	\$ 841
Contractor Staff	\$ 42	\$ 71	\$ 145	\$ 99	\$ 149	\$ 173	\$ -
Total Labor	\$ 573	\$ 642	\$ 945	\$ 515	\$ 772	\$ 1,013	\$ 841
Materials & Supplies	\$ 2	\$ 3	\$ 3	\$ 8	\$ 12	\$ 10	\$ 7
Outside Services	\$ 21	\$ 29	\$ 405	\$ 77	\$ 200	\$ 200 a)	\$ 150
Incentives	\$ 9,743	\$ 3,211	\$ 7,916	\$ 4,593	\$ 9,304	\$ 7,797	\$ 5,658
Marketing	\$ 13	\$ 49	\$ 100	\$ 65	\$ 98	\$ 100 b)	\$ 75
Administrative Expenses	\$ 1,035	\$ 931	\$ 1,503	\$ 709	\$ 1,250	\$ 1,500 c) d)	\$ 1,200
Other	\$ 4	\$ 13	\$ 18	\$ 3	\$ 4	\$ 17	\$ 15
Total	\$ 11,391	\$ 4,879	\$ 10,890	\$ 5,970	\$ 11,640	\$ 10,637	\$ 7,945

- a) Technical analysis and third-party pre/post inspection service.
- b) Market program to customers, trade allies and professional organizations.
- c) Employee expenses including mileage, training, conference attendance and misc.
- d) Primarily due to interest expense payments on the zero % customer loans.

#### **2011 Goals and Metrics Information**

Demand Savings (kW reduction Goal)	5,124.2
Annual Energy Savings (kWh Reduction Goal)	33,134,965
Lifetime Energy Savings (kWh Reduction Goal)	387,683,431
Annual Cost Rate (\$/kWh)	\$ 0.321
Lifetime Cost Rate (\$/kWh)	\$ 0.027
Electric b/c Ratio	3.55
Total Resource b/c Ratio	2.20

## CL&P Standard Filing Requirement-SBEA LF26

### Small Business Energy Advantage

#### Program Costs

Year	Budget	Actual	% of Budget	\$/LT-kWh
2000	\$ 1,525,000	\$ 852,000	56%	0.011
2001	\$ 2,720,000	\$ 2,437,000	90%	0.013
2002	\$ 3,449,000	\$ 2,812,000	82%	0.015
2003	\$ 3,800,000	\$ 2,167,157	57%	0.010
2004	\$ 3,000,000	\$ 3,263,609	109%	0.010
2005 Revised	\$ 3,456,476	\$ 2,710,538	78%	0.012
2006 Revised	\$ 4,300,000	\$ 7,497,147	174%	0.013
2007 Revised	\$ 3,900,200	\$ 10,204,353	262%	0.022
2008 Revised	\$ 13,537,620	\$ 11,390,772	84%	0.025
2009 Revised	\$ 9,808,000	\$ 4,879,517	50%	0.018
2010 Revised	\$ 10,890,000	n/a	n/a	n/a
2010 YTD (Aug)	n/a	\$ 5,969,567	55%	0.034
2010 Y/E Projected	n/a	\$ 11,639,704	107%	0.029
2011	\$ 10,637,460	n/a	n/a	n/a

#### Goal - Participation

Year	Goal <sup>2</sup>	Actual	% of Goal
2000	924	587	64%
2001	1,860	2,023	109%
2002	2,114	1,961	93%
2003	769	505	66%
2004	561	603	107%
2005 Revised	522	523	100%
2006 Revised	489	955	195%
2007 Revised	514	1,397	272%
2008 Revised	1,647	1,138	69%
2009 Revised	1,197	785	66%
2010 Revised	1,107	n/a	n/a
2010 YTD (Aug)	n/a	768	69%
2010 Y/E Projected	n/a	1,152	104%
2011	1,103	n/a	n/a

#### Goal - Lifetime MWh Savings

Year	Goal (MWh)	Actual (MWh)	% of Goal
2000	107,466	75,624	70%
2001	197,383	189,039	96%
2002	181,333	192,412	106%
2003	261,691	221,042	84%
2004	217,790	328,965	151%
2005 Revised	202,766	233,266	115%
2006 Revised	284,749	561,280	197%
2007 Revised	198,363	468,516	236%
2008 Revised	606,652	457,376	75%
2009 Revised	554,086	275,112	50%
2010 Revised	372,522	n/a	n/a
2010 YTD (Aug)	n/a	173,535	47%
2010 Y/E Projected	n/a	396,963	107%
2011	387,683	n/a	n/a

#### Goal - Installed kW Savings

Year	Goal	Actual	% of Goal
2000	n/a	n/a	n/a
2001	n/a	n/a	n/a
2002	n/a	n/a	n/a
2003	3,224	2,430	75.4%
2004	2,552	3,354	131.4%
2005 Revised	2,376	2,349	98.9%
2006 Budget	2,916	8,497	291.4%
2007 Revised	3,022	9,310	308.1%
2008 Revised	10,647	8,287	77.8%
2009 Revised	10,698	4,987	46.6%
2010 Revised	5,402	n/a	n/a
2010 YTD (Aug)	n/a	2,414	44.7%
2010 Y/E Projected	n/a	5,654	104.7%
2011	5,124	n/a	n/a

### Small Business Energy Advantage

#### Program Ratios

Year	\$/Lifetime kWh		\$/Annualized kW	
	Plan	Actual	Plan	Actual
2000	0.014	0.011	n/a	1,004
2001	0.014	0.013	n/a	1,066
2002	0.019	0.015	n/a	1,196
2003	0.017	0.010	1,270	892
2004	0.014	0.010	1,175	973
2005 Revised	0.017	0.012	1,455	1,154
2006 Revised	0.015	0.013	1,475	882
2007 Revised	0.020	0.022	1,291	1,096
2008 Revised	0.014	0.025	1,271	1,374
2009 Revised	0.018	0.018	917	978
2010 Revised	0.029	n/a	2,016	n/a
2010 YTD (Aug)	n/a	0.034	n/a	2,472
2010 Y/E Projected	n/a	0.029	n/a	2,059
2011	0.027	n/a	2,076	n/a

## CL&P Standard Filing Requirement

### CL&P Program Notes

#### Budget / (FTE)

6.3 FTEs for Program administration, inspections, QA/QC, loan collections, etc.

#### Goal

1103 Customers - installed projects.  
5,124 Demand Savings (kW Reduction Goal)  
387,683,431 Lifetime Energy Savings (kWh Reduction Goal)

#### Cost/kWh (Cost/Unit)

\$/Annualized kW	\$	2,076
\$/Lifetime kWh	\$	0.027

#### Goal Setting Methodology

The 2011 planning model is based on 2009 actual results.  
Changes were made to incorporate different incentive structure and coincidence factors.

#### Metric Changes:

None

**The United Illuminating Company**  
**EL-25 Standard Filing Requirement**  
**2011**

**Small Business**

**Baseline Assumptions:**

Market

Retrofit program for small C&I customers < 200 kW<sup>(1)</sup>

<b><u>Budget Projections</u></b>	<b>2010</b>		<b>2010</b>		<b>2011 Bud</b>		<b>2012 Bud</b>	
	<b><u>2009 Act</u></b>	<b><u>Revised Bud</u></b>	<b><u>YTD (Aug)</u></b>	<b><u>YE Projected</u></b>				
Labor								
UI Labor	\$ 246,477	\$ 252,957	\$ 163,685	\$ 252,957	\$ 257,077	a)	\$ 269,931	
Contractor Staff	\$ -	\$ 15,000	\$ -	\$ -	\$ 10,500	b)	\$ 10,500	
Total Labor	\$ 246,477	\$ 267,957	\$ 163,685	\$ 252,957	\$ 267,577		\$ 280,431	
Materials & Supplies	\$ 297	\$ 4,000	\$ 43	\$ 43	\$ 3,266	c)	\$ 3,266	
Outside Services	\$ 22,940	\$ 98,000	\$ 126,615	\$ 126,615	\$ 30,000	d)	\$ 30,000	
Incentives	\$ 1,540,879	\$ 2,382,299	\$ 1,051,953	\$ 1,662,121	\$ 1,733,261	e)	\$ 1,067,777	
Marketing	\$ 32,474	\$ 35,000	\$ 25,678	\$ 35,000	\$ 24,000	f)	\$ 20,000	
Other	\$ 1,981	\$ 1,200	\$ 1,720	\$ 1,720	\$ 1,200	g)	\$ 1,200	
Administrative Expenses	\$ 324,588	\$ 200,000	\$ 227,189	\$ 335,000	\$ 351,330	h)	\$ 300,000	
Total	\$ 2,169,636	\$ 2,988,456	\$ 1,596,883	\$ 2,413,456	\$ 2,410,634		\$ 1,702,674	

(1) Customer eligibility is up to 200 kW

- a) 2.05 FTEs
- b) no comment
- c) no comment
- d) Consultant / engineering / audit services
- e) Customer incentives
- f) Brochure revision, selected advertising, public relations, etc.
- g) no comment
- h) Financing interest, employee training, mileage, etc.

**Goals and Metrics Information:**

**Savings**

	<b><u>2011</u></b>
Demand Savings (kW)	968
Annual Energy Savings (kWh)	6,406,652
Lifetime Energy Savings (kWh)	75,045,272
Annual Cost Rate (\$/kWh)	\$ 0.376
Lifetime Cost Rate (\$/kWh)	\$ 0.032
Cost per kW	\$ 2,490
Electric System B/C Ratio	3.05
Total Resource B/C Ratio	1.62

**The United Illuminating Company  
LF-26 Standard Filing Requirement**

**Small Business Energy Advantage**

**Goal - Program Costs (000's)**

Year	Budget	Actual	% of Goal Achieved
2000	\$1,514	\$1,203	79.5%
2001	\$1,327	\$1,397	120.2%
2002	\$1,065	\$997	93.6%
2003	\$1,301	\$846	65.0%
2004	\$922	\$844	91.5%
2005	\$1,350	\$1,386	102.7%
2006	\$1,530	\$1,638	107.1%
2007	\$1,411	\$1,842	130.5%
2008	\$2,011	\$2,145	106.7%
2009	\$3,623	\$2,170	59.9%
2010	\$2,988		
2010 YTD (Aug)	\$2,988	\$1,597	53.4%
2010 YE Projected	\$2,988	\$3,195	106.9%
2011	\$2,411		

**Goal - Number Of Projects**

Year	Project Target	Project Actual	% of Goal Achieved
2000	225	317	140.9%
2001	294	258	87.8%
2002	253	276	109.1%
2003	298	148	49.7%
2004	236	237	100.4%
2005	307	367	119.5%
2006	344	310	90.1%
2007	240	357	148.8%
2008	340	490	144.1%
2009	630	559	88.7%
2010	475		
2010 YTD (Aug)	475	203	42.7%
2010 YE Projected	475	335	70.5%
2011	348		

**\$/Project**

Year	Target	Actual	% of Goal Achieved
2000	\$6,729	\$3,795	56.4%
2001	\$4,514	\$6,182	137.0%
2002	\$4,209	\$3,612	85.8%
2003	\$4,366	\$5,716	130.9%
2004	\$3,909	\$3,563	91.1%
2005	\$4,397	\$3,777	85.9%
2006	\$4,448	\$5,284	118.8%
2007	\$5,879	\$5,161	87.8%
2008	\$5,915	\$3,760	63.6%
2009	\$5,751	\$3,881	67.5%
2010	\$6,291		
2010 YTD (Aug)	\$6,291	\$7,866	125.1%
2010 YE Projected	\$6,291	\$9,537	151.6%
2011	\$6,933		

**Goal - Installed kWh Savings (000's)**

Year	Goal	Actual	% of Goal Achieved
2000	6,417	5,274	82.2%
2001	5,761	6,506	112.9%
2002	4,765	6,279	131.8%
2003	6,250	3,578	57.2%
2004	4,930	4,399	89.2%
2005	6,895	7,590	110.1%
2006	6,733	5,830	86.6%
2007	5,670	7,644	134.8%
2008	7,564	9,480	125.3%
2009	14,753	7,914	53.6%
2010	9,251		
2010 YTD (Aug)	9,251	3,889	42.0%
2010 YE Projected	9,251	7,400	80.0%
2011	6,407		

**Goal - Installed kW Savings**

Year	Goal	Actual	% of Goal Achieved
2000	-	-	0.0%
2001	-	-	0.0%
2002	1,429	-	0.0%
2003	1,424	1,031	72.4%
2004	802	1,035	129.1%
2005	1,132	1,963	173.4%
2006	1,466	1,661	113.3%
2007	1,340	2,008	149.8%
2008	1,717	2,149	125.2%
2009	3,095	1,573	50.8%
2010	1,452		
2010 YTD (Aug)	1,452	680	46.8%
2010 YE Projected	1,452	1,162	80.0%
2011	968		

**Goal - Lifetime kWh Savings (000's)**

Year	Goal	Actual	% of Goal Achieved
2000	96,300	79,100	82.1%
2001	86,400	97,600	113.0%
2002	71,500	94,200	131.7%
2003	93,750	53,670	57.2%
2004	73,950	65,987	89.2%
2005	108,928	119,909	110.1%
2006	100,997	76,975	76.2%
2007	72,003	92,649	128.7%
2008	96,830	99,684	102.9%
2009	169,777	88,186	51.9%
2010	109,193		
2010 YTD (Aug)	109,193	48,747	44.6%
2010 YE Projected	109,193	87,354	80.0%
2011	75,045		

**Program Ratios**

Year	\$/kWh Target	Actual	\$/LT kWh Target	Actual	\$/kW Target	Actual
2000	\$0.236	\$0.228	\$0.016	\$0.015	\$0	\$0
2001	\$0.230	\$0.245	\$0.015	\$0.016	\$0	\$0
2002	\$0.224	\$0.159	\$0.015	\$0.011	\$745	\$604
2003	\$0.208	\$0.236	\$0.014	\$0.016	\$914	\$821
2004	\$0.187	\$0.192	\$0.012	\$0.013	\$1,150	\$816
2005	\$0.196	\$0.183	\$0.012	\$0.012	\$1,193	\$706
2006	\$0.227	\$0.281	\$0.015	\$0.021	\$1,044	\$986
2007	\$0.249	\$0.241	\$0.020	\$0.020	\$1,053	\$918
2008	\$0.266	\$0.226	\$0.021	\$0.022	\$1,171	\$998
2009	\$0.246	\$0.274	\$0.021	\$0.025	\$1,171	\$1,380
2010	\$0.323		\$0.027		\$2,058	
2010 YTD (Aug)	\$0.323	\$0.411	\$0.027	\$0.033	\$2,058	\$2,348
2010 YE Projected	\$0.323	\$0.432	\$0.027	\$0.037	\$2,058	\$2,750
2011	\$0.376		\$0.032		\$2,490	

Notes

- 2000-2002 data from LF-26 filed in 03-01-01
- 2003 data reflects budgets approved in 03-01-01
- 2004 data represents the revised budget allocations

# The United Illuminating Company

## LF-26 Standard Filing Requirement

### Program Notes - Small Business Energy Advantage

Budget/(FTE):

- 1) Budget includes 2.05 FTEs for staffing
- 2) 2011 proposed overall budget is 20% decrease compared to the '10 amended (4/2010) budget
- 3) 2011 will include more non lighting incentives to increase comprehensiveness and to motivate the market
- 4) 2011 incentives include re-structured incentives focusing on measure caps and cost containment;
- 5) 2011 incentives include a re-structured comprehensive initiative with incentives up to 50% of the total cost
- 6) Program eligibility will be up to 200 kW
- 7) 2010 has experienced less than 1% default rate YTD.  
Project financing costs reduce available incentive funds

Goal:

- 1) 2011 Target = 348 installed projects
- 2) 2011 target of 6,406,652 kWh; a decrease of approx. 21%
- 3) 2011 target of 968 kW; a decrease of approx. 35%
- 4) 2011 audit target (885) is approx. the same audit/project ratio as '07 to gain implementation efficiencies increasing the scope of SMB measures to achieve more comprehensiveness
- 5) the market will continue to need stimulation; 2011 will have increased \$/kwhr incentive levels
- 6) 90% of projects have come facilities less than 75 kW - limiting the savings opportunity
- 7) applied gross statewide realization rates

Cost/kWh (Cost/Unit):

- 1) 2011 projected cost rates per kWh: annual = \$0.376, lifetime = \$0.032
- 2) 2011 projected \$\$/kW = \$2,490
- 3) project financing costs have been budgeted and increase the \$\$/kWh
- 4) adopted realization rates to be more consistent with CL&P;
- 5) adopted measure life values and coincidence factors for enduses to be more consistent with ;
- 6) \$/kW is higher due to refrigeration controls and HVAC conservation measures  
small impacts on peak kW
- 7) higher program costs are anticipated due to:
  - a. negative impact from the economic recession
  - b. increased incentive costs from larger customers
  - c. increased incentive costs from a re-structured comprehensive initiative
  - d. more outreach, training and education
  - e. ongoing marketing strategies to increase inner city & minority participation
- 8) rates from the recent impact evaluation was included in the cost rate calculation
- 9) small project size limits savings opportunity - historical project breakdown by kW size

	2008	2009	2010	projects
kW Range	%	%	%	
0-25 kW	68%	81%	66%	133
26-50 kW	15%	12%	18%	36
51-75 kW	9%	3%	7%	15
76-100 kW	3%	1%	3%	7
101-125 kW	3%	2%	4%	8
126-150 kW	1%	0%	1%	1

Metric Changes:

- 1) all savings are reported as net values

## **Operation & Maintenance Services (Electric and Natural Gas)**

**Objective:** The objectives of the Operations and Maintenance Services (“O&M”) program are to: (1) help customers improve the electrical and thermal efficiency of their operations through changes and repairs, rather than capital investments, and (2) provide customers with the knowledge and the means to maintain equipment efficiency on an ongoing basis. These objectives are realized by, but not limited to: (1) investigating ways of upgrading functioning but inefficient equipment within the C&I environment; (2) repairing and/or retrofitting existing equipment with energy-saving control devices; (3) improving a facility’s overall performance, and (4) developing long-term, sustainable energy-saving relationships and plans with customers.

**Target Market:** The target market for this program is all C&I customers. However, owners and managers of multi-family residential buildings may also participate. They represent a target market that often straddles the eligibility requirements of both C&I and Residential program offerings.

The integration of natural gas measures into the O&M incentive structure in 2010 has provided additional marketing and customer opportunities, and will continue to do so in 2011. Giving the program such a broad reach should not only help to minimize the costs of labor and promotion, but also to make it a simpler, more streamlined experience for both the customer and the Electric and Natural Gas Companies. In addition, integrating natural gas measures into the existing O&M program offers customers a more comprehensive package for achieving greater energy efficiencies within their facilities.

**Program Description:** This program offers electric and natural gas incentives for C&I customers to improve operation and maintenance of their facilities in order to make them more energy efficient. The Electric and Natural Gas Companies provide O&M evaluations and recommendations upon request, with the C&I customer being responsible for implementing the O&M improvements. Examples of such improvements include, but are not limited to, compressed-air system leak studies and repairs; retro-

commissioning, and additions, corrections, repairs to building management system control components and software programming to maximize operational efficiency, and system modifications to optimize performance.

The Electric and Natural Gas Companies will consider the piloting and testing of promising concepts, technologies and services for eventual inclusion in the program. The results of these efforts may be used to make incremental improvements to the O&M program.

O&M program features (e.g., commissioning, training, etc.) are being considered for incorporation into other C&I programs as well. This will ensure that when new energy-saving equipment is installed, facility staff will be provided with appropriate training to maintain equipment at maximum operational efficiency.

In 2011, the O&M program will continue its transformation to a more detailed customer-focused approach, which is expected to further enhance energy-efficient management behaviors among C&I customers.

One of the primary components of this transformation is the Business Sustainability Challenge (“BSC”). Initiated as a pilot in 2008, the BSC training and educational initiative is the result of a shared vision of the EEB C&I Committee and the Electric and Natural Gas Companies. It provides an opportunity for customers to not only address their energy-management practices and investments, but also their long-term social, environmental and economic sustainability objectives through formal and informal education, plan development and implementation, and continuous improvement practices. The BSC employs a holistic approach to training, educating and working with medium-size to larger customers, whom it trains to integrate sustainability into their business practices and manage energy, carbon, waste and water as valuable resources.

In 2011, the BSC training and education pilot will continue to be offered in two tracks: Track A by UI and Track B by CL&P. Both Tracks A and B will identify prospects and specific targets

through customer participation in other Energy Efficiency Fund programs, such as PRIME. While each track takes a slightly different approach to working with customers, both will follow the steps outlined below, using shared tools and resources (borrowed from the ENERGY STAR Energy Management Process Model):

- Obtain a commitment.
- Assess performance and set goals.
- Create a plan.
- Implement the plan.
- Evaluate the plan's progress.
- Recognize achievements.
- Re-assess the process.

The major components of Track A include: (a) a multi-year commitment coupled with several consultative meetings and the establishment of energy efficiency and sustainability plan and goals; (b) a Sustainability, Energy Management and/or Carbon Inventory Assessment; (c) Technical scoping which includes review and prioritization of assessments, audits, studies, carbon inventory and ideas from staff and management; (d) a Strategic Sustainability and Energy Management Action Plan that identifies reduction goals, the specific activities that the customer will engage in with the assistance of the Electric Companies (including energy management activities); sustainability initiatives; investment priorities; educational opportunities; employee training and monitoring and reporting systems for future years.

In 2010, the BSC training and education pilot program expanded to serve more customers and test a different approach by incorporating an additional, complementary track ("Track B", administered by CL&P), that provided a variety of programmatic and educational tools, resources, and training to promote business sustainability. In addition, Track B offered thirteen (13) participating companies an interactive, classroom-

based course curriculum, delivered by different industry and subject matter experts at monthly half-day workshops. The classroom setting encouraged networking and sharing best practices, while receiving training in various subjects, including:

- Sustainable Business Practices;
- Energy-Carbon Footprint Management;
- Creating the Sustainability Playbook;
- Lean to Green Manufacturing Practices;
- Benchmarking - the value and the tools;
- Sustainable Supply Chains;
- Sustaining Sustainability through O&M and Continuous Improvement, and;
- Marketing the Sustainable Business.

In 2011, the BSC training and education initiative will continue to be managed as Tracks A & B, empowering customers to identify both low-cost and long-term resource solutions specific to their facilities and operations, implement new strategies and behaviors and obtain near term results that are sustainable over the long term. In addition to classroom settings, on-line “webinars” and other methods of training may be incorporated into the Track B experience. Both market data and customer feedback will be used to determine the strengths and weaknesses of each Track’s approach, and how best to combine the most valuable elements of the original pilot approaches to best meet customer needs.

In 2011, the Electric and Natural Gas Companies will continue to sponsor and provide focused training to help C&I customers improve their building operations and maintenance activities. A variety of training opportunities will again be offered with the emphasis being on facilities and property managers as the target audience. The Electric and Natural Gas Companies have continued to be successful in identifying and providing training

in the efficient operation of building systems to help qualify facility operators and maintenance staff for certification. 2011 training is expected to incorporate program topics such as, but not limited to:

- 1.) Certified Energy Manager, BOC or equivalent;
- 2.) K-12 School Facility Maintenance;
- 3.) Energy Basics and Energy Action Planning;
- 4.) Building Automation Systems;
- 5.) Commissioning; Retro-Commissioning, and
- 6.) Compressed Air Challenges I and II.

In addition, training opportunities will be explored that target improving awareness and energy-efficient management behaviors among C&I customers.

To further the expansion of the training and education component of the program, O&M will focus on low cost/no cost opportunities for customers to achieve savings that are sustainable. The program will not include significant capital investments.

The Retro-Commissioning (“RCx”) initiative will continue to be offered by the Electric and Natural Gas Companies as an O&M program component with increased funding and emphasis in 2011. The RCx process conducts an in-depth investigation of a facility’s systems operations, which focuses on integrating more efficient and effective instructions for the building management systems. The main objective of RCx is to find low-cost/no cost, non-capital, energy-efficient measures that will quickly and effectively result in energy savings for the owner of the building. The program targets Connecticut’s larger customer facilities in the commercial and industrial market segment, and the large institutional segment.

**Marketing Strategy:** While the target market for the O&M program is the C&I customer, a large percentage of the marketing efforts are directed at the audience that provides the services--the engineering and contractor community. By focusing our promotions on them, we are encouraging the development of a

market-based energy-efficiency industry. Some of the ways we promote and support the engineering and contractor community may include:

- technical and program-specific training seminars offered throughout the year, which will be promoted using e-mail notices linking users to an on-line registration system;
- participation in strategically selected association events, which may also include submission of technical papers, presentations, etc., and
- writing and distribution of case studies (also referred to as Success Stories or Testimonials) to various relevant marketing and media channels.

To a lesser extent, the Electric and Natural Gas Companies will target building owners, business owners, facility managers and energy managers using some of the tactics above, in addition to:

- targeted mailings to customers (print and e-mail) directing them to the Electric and Natural Gas Companies' web sites and CTEnergyinfo.com;
- presence at strategically-selected business expos/shows;
- articles and notices posted on electronic Electric and Natural Gas Companies' electronic newsletters, and;
- reaching out to BSC participant targets identified through knowledgeable customer managers, e.g., sales engineers and strategic account managers and participation in other Energy Efficiency Fund programs such as PRIME.

Incentive Strategy: O&M program offerings are aligned with those found in the EO and ECB programs. However, incentives may be tailored-based upon the specific nature of each proposal. In some cases, portions of the selected customer's project may qualify for incentives under the EO or ECB programs and may be included in the O&M Letter of Agreement to the customer.

In UI's service territory, customers may receive incentives for evaluations identifying appropriate measures being recommended for implementation from the O&M program.

**Goals:** Refer to Standard Filing Requirements for program goals.

**New Program Issues:** To further the goal of long-term sustainability for Connecticut's businesses and industries, the Electric and Natural Gas Companies will continue to work on developing, refining and implementing the two tracks of the BSC initiative for 2011. It is important to note that the long-term vision of enhancing sustainability and energy-efficient management behaviors is a multi-year educational process which will require an investment in early years but should ultimately result in corporate ownership of sustainability and energy management that provides measurable savings.

Also, a new incentive cap is proposed which will impose, where practical, published unit cost rate caps (on a cost-per-annual-energy-saved basis along with a cost-per-peak demand-saved basis). This is an effort to provide a higher level of transparency while continuing to better manage project incentive costs.

As noted in Chapter 1, the Electric and Natural Gas Companies will continue to be partners in 2011 and offer a comprehensive portfolio of integrated gas and electric O&M products and services that can be merged with the resources of ECB and EO. This will provide customers a well-organized efficiency services package for achieving greater energy savings opportunities within their facilities.

### **Connecticut Energy Advisory Board (CEAB)**

The CEAB recently completed its "2010 Comprehensive Plan for the Procurement of Energy Resources" and listed one recommendation for the Operations and Maintenance Services (O&M) program. This recommendation, which has been reviewed by the Companies and the EEB, is as follows, along with the Companies' and the EEB's responses:

1. Reduce administrative and training costs by merging O&M and sustainability training into the Building Operator Certification and Certified Energy Manager Programs. This could be accomplished by adding comprehensive O&M and sustainability modules to each of these offerings. Discounted registration could be provided or free registration could be linked to submittal of an O&M project after successful completion of either of the courses.

Response: The Companies incorporate BSC and RetroCx under the O&M umbrella to reduce administrative costs. The BSC pilot is testing the educational module approach in Track 2. The course is modeled after the BOC course but is dedicated to the relevant subject matter for sustainability. In addition, the Companies offer O&M and Sustainability training through a variety of seminar programs in areas such as O&M Best Practices, Pumping System Optimization and Sustainability, Compressed Air Challenge and Gas Optimization.

The license to the Building Operators Certification (BOC) Program was given up by the Northeast Energy Efficiency Partnership (NEEP). The BOC program, sponsored by the Northwest Energy Efficiency Alliance (“NEEA”), is still offered by the Northwest Energy Efficiency Council (“NEEC”) on a regional basis. When the license was sold by NEEP, the companies discontinued offering the BOC course due to the extremely high costs and limited participation by customers, who were not responding to the 50 percent co-pay. Discounted registrations or co-pay scenarios were implemented with the BOC offering but registrations were very low. Feedback from customers indicated the time commitment was also a negative from the customer perspective.

AEE is the owner of the Certified Energy Manager Program. The companies offer this as an extension of their training seminars. It is run through the local AEE chapter and the only costs that the companies pay are associated with limited marketing and sponsoring the event in addition to supplying the facility and any refreshments. Attendees must apply to AEE and pay the necessary fees.

As the Companies do not control the content of these certification processes, the addition of specific modules to meet Connecticut's administrative needs would require the national organization's support, development and acceptance of O&M and/or sustainability best practices.

## CL&P Standard Filing Requirement

### **O&M Services (Roll-Up)** (includes O&M Services and O&M Retro-Commissioning Extension)

All dollar values are in \$000

<b><u>Budget Projections</u></b>	<b>2008</b>	<b>2009</b>	<b>Revised</b>	<b>2010</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
	<b><u>Actuals</u></b>	<b><u>Actuals</u></b>	<b><u>2010 Budget</u></b>	<b><u>YTD (Aug)</u></b>	<b><u>YE Projected</u></b>	<b><u>Budget</u></b>	<b><u>Budget</u></b>
Labor							
NU Labor	\$ 152	\$ 192	\$ 450	\$ 229	\$ 457	\$ 806	\$ 806
Contractor Staff	\$ 41	\$ 19	\$ 25	\$ 5	\$ 10	\$ 60	\$ -
Total Labor	\$ 193	\$ 211	\$ 475	\$ 233	\$ 467	\$ 866	\$ 806
Materials & Supplies	\$ 4	\$ 4	\$ 13	\$ 31	\$ 5	\$ 10	\$ 5
Outside Services	\$ 259	\$ 314	\$ 1,290	\$ 167	\$ 615	\$ 642 a)	\$ 160
Incentives	\$ 1,455	\$ 547	\$ 1,162	\$ 202	\$ 1,106	\$ 2,642 b)	\$ 2,171
Marketing	\$ 5	\$ 12	\$ 90	\$ 7	\$ 32	\$ 66 c)	\$ 33
Administrative Expenses	\$ 7	\$ 4	\$ 50	\$ 12	\$ 40	\$ 37 d)	\$ 19
Other	\$ 7	\$ 8	\$ 20	\$ 2	\$ 20	\$ 15	\$ 8
Total	\$ 1,930	\$ 1,102	\$ 3,100	\$ 654	\$ 2,285	\$ 4,278 e)	\$ 3,201

a) Consultants for focused studies, quality assurance/quality control (QA/QC) and inspections as necessary.

b) Incentives paid directly to customers for the installation of cost effective energy conservation measures.

c) Market program to customers, trade allies and professional organizations.

d) Employee expenses including mileage, training, conference attendance, misc.

e) Includes O&M Services and Retro commissioning budgets.

### **2011 Goals and Metrics Information**

Demand Savings (kW reduction Goal)	1,871.2
Annual Energy Savings (KWh Reduction Goal)	16,847,299
Lifetime Energy Savings (kWh Reduction Goal)	154,181,561
Annual Cost Rate (\$/kWh)	\$ 0.254
Lifetime Cost Rate (\$/kWh)	\$ 0.028
Electric b/c Ratio	3.74
Total Resource b/c Ratio	2.62

## CL&P Standard Filing Requirement

### O&M Services

All dollar values are in \$000

<u>Budget Projections</u>	<u>2008 Actuals</u>	<u>2009 Actuals</u>	<u>Revised 2010 Budget</u>	<u>2010 YTD (Aug)</u>	<u>2010 YE Projected</u>	<u>2011 Budget</u>	<u>2012 Budget</u>
Labor							
NU Labor	\$ 46	\$ 73	\$ 225	\$ 103	\$ 207	\$ 403	\$ 403
Contractor Staff	\$ 41	\$ 19	\$ 13	\$ 5	\$ 9	\$ 30	\$ -
Total Labor	\$ 87	\$ 92	\$ 238	\$ 108	\$ 216	\$ 433	\$ 403
Materials & Supplies	\$ 4	\$ 4	\$ 7	\$ 31	\$ 2	\$ 5	\$ 4
Outside Services	\$ 43	\$ 65	\$ 258	\$ 85	\$ 125	\$ 128 a)	\$ 38
Incentives	\$ 1,077	\$ (11)	\$ 232	\$ 46	\$ 125	\$ 528 b)	\$ 186
Marketing	\$ 4	\$ 9	\$ 45	\$ 7	\$ 30	\$ 33 c)	\$ 24
Administrative Expenses	\$ 1	\$ 3	\$ 25	\$ 5	\$ 30	\$ 19 d)	\$ 14
Other	\$ 7	\$ 8	\$ 10	\$ 2	\$ 15	\$ 8	\$ 6
Total	\$ 1,223	\$ 170	\$ 814	\$ 284	\$ 543	\$ 1,154	\$ 674

a) Consultants for focused studies, quality assurance/quality control (QA/QC), and inspections as necessary. Increase to Outside Services and Labor in 2010 for Building Sustainability Challenge (BSC).

b) Incentives paid directly to customers for the installation of cost effective energy conservation measures. Includes \$50K for BSC initiative.

c) Market program to customers, trade allies, and professional organizations.

d) Employee expenses including mileage, training, conference attendance and misc.

### 2011 Goals and Metrics Information

Demand Savings (kW reduction Goal)	804.8
Annual Energy Savings (KWh Reduction Goal)	7,129,414
Lifetime Energy Savings (kWh Reduction Goal)	57,311,257
Annual Cost Rate (\$/kWh)	\$ 0.162
Lifetime Cost Rate (\$/kWh)	\$ 0.020
Electric b/c Ratio	5.21
Total Resource b/c Ratio	3.87

## CL&P Standard Filing Requirement

### O&M Services

Year	Budget	Program Costs		% of Budget	\$/LT-kWh
		Actual			
2000	\$ 3,747,000	\$ 3,663,000		98%	0.015
2001	\$ 2,421,000	\$ 2,796,000		115%	0.017
2002	\$ 1,204,000	\$ 617,000		51%	0.018
2003	\$ 1,300,000	\$ 450,905		35%	0.044
2004	\$ 963,000	\$ 731,000		76%	0.021
2005 Revised	\$ 2,109,416	\$ 1,627,467		77%	0.017
2006 Revised	\$ 2,156,000	\$ 1,149,265		53%	0.018
2007 Revised	\$ 1,984,000	\$ 1,113,822		56%	0.024
2008 Revised	\$ 1,647,521	\$ 1,222,862		74%	0.021
2009 Revised	\$ 295,000	\$ 1,100,065		373%	0.067
2010 Revised	\$ 814,400	n/a		n/a	n/a
2010 YTD (Aug)	n/a	\$ 284,237		35%	0.064
2010 Y/E Projected	n/a	\$ 543,057		67%	0.014
2011	\$ 1,153,715	n/a		n/a	n/a

Year	Goal - Participation		% of Goal
	Goal <sup>2</sup>	Actual	
2000	3,305	3,093	94%
2001	2,100	2,236	106%
2002	519	306	59%
2003	88	14	16%
2004	124	17	14%
2005 Revised	236	26	11%
2006 Revised	59	26	44%
2007 Revised	32	18	56%
2008 Revised	13	61	469%
2009 Revised	43	15	35%
2010 Revised	30	n/a	n/a
2010 YTD (Aug)	n/a	6	20%
2010 Y/E Projected	n/a	9	30%
2011	77	n/a	n/a

Goal - Lifetime MWh savings				Goal - Installed kW Savings			
Year	Goal (MWh)	Actual (MWh)	% of Goal	Year	Goal	Actual	% of Goal
2000	283,896	252,573	89%	2000	n/a	n/a	n/a
2001	185,348	164,295	89%	2001	n/a	n/a	n/a
2002	33,636	33,643	100%	2002	n/a	n/a	n/a
2003	18,182	10,201	56%	2003	185	142	76.8%
2004	49,764	35,630	72%	2004	921	689	74.8%
2005 Revised	100,825	97,075	96%	2005 Revised	1,621	1,127	69.5%
2006 Revised	111,853	62,462	56%	2006 Revised	1,618	504	31.1%
2007 Revised	81,616	46,154	57%	2007 Revised	1,091	432	39.6%
2008 Revised	108,582	59,455	55%	2008 Revised	341	188	55.0%
2009 Revised	147,524	16,364	11%	2009 Revised	359	263	n/a
2010 Revised	176,766	n/a	n/a	2010 Revised	1,512	n/a	n/a
2010 YTD (Aug)	n/a	4,446	3%	2010 YTD (Aug)	n/a	14	0.9%
2010 Y/E Projected	n/a	37,983	21%	2010 Y/E Projected	n/a	312	20.6%
2011	57,311	n/a	n/a	2011	805	n/a	n/a

### O&M Services

Year	Program Ratios			
	\$/Lifetime kWh		\$/Annualized kW	
	Plan	Actual	Plan	Actual
2000	0.013	0.015	n/a	827
2001	0.013	0.017	n/a	1,099
2002	0.036	0.018	n/a	1,125
2003	0.046	0.044	2,781	3,175
2004	0.019	0.021	0	1,061
2005 Revised	0.021	0.017	1,301	1,444
2006 Revised	0.019	0.018	1,333	2,282
2007 Revised	0.024	0.024	1,819	2,576
2008 Revised	0.015	0.021	4,831	6,521
2009 Revised	0.002	0.067	822	4,190
2010 Revised	0.005	n/a	538	n/a
2010 YTD (Aug)	n/a	0.064	n/a	20,612
2010 Y/E Projected	n/a	0.014	n/a	1,742
2011	0.020	n/a	1,433	n/a

## CL&P Standard Filing Requirement

### CL&P Program Notes

#### Budget / FTE

2.4 FTEs for Program Administration, inspections, etc.

#### Goal

Demand Savings (kW Reduction Goal)	805
Lifetime Energy Savings (kWh Reduction Goal)	57,311,257

#### Cost/kWh (Cost/Unit)

\$/Annualized kW	\$	1,433
\$/Lifetime kWh	\$	0.020

#### Goal Setting Methodology

The 2011 planning model is based on 2009 actual results.  
Savings were adjusted based on new incentive structure.

#### Metric Changes

None.

## CL&P Standard Filing Requirement

### O&M Retro Commissioning

All dollar values are in \$000

<u>Budget Projections</u>	<u>2008 Actuals</u>	<u>2009 Actuals</u>	<u>Revised 2010 Budget</u>	<u>2010 YTD (Aug)</u>	<u>2010 YE Projected</u>	<u>2011 Budget</u>	<u>2012 Budget</u>
Labor							
NU Labor	\$ 106	\$ 119	\$ 225	\$ 125	\$ 251	\$ 403	\$ 403
Contractor Staff	\$ -	\$ -	\$ 13	\$ 0	\$ 0	\$ 30	\$ -
Total Labor	\$ 106	\$ 119	\$ 238	\$ 125	\$ 251	\$ 433	\$ 403
Materials & Supplies	\$ -	\$ -	\$ 7	\$ 0	\$ 3	\$ 5	\$ 1
Outside Services	\$ 216	\$ 249	\$ 1,032	\$ 82	\$ 490	\$ 514 a)	\$ 122
Incentives	\$ 378	\$ 558	\$ 930	\$ 155	\$ 981	\$ 2,114 b)	\$ 1,985
Marketing	\$ 1	\$ 3	\$ 45	\$ 1	\$ 2	\$ 33	\$ 9
Administrative Expenses	\$ 6	\$ 1	\$ 25	\$ 6	\$ 10	\$ 19 c)	\$ 5
Other	\$ -	\$ 0	\$ 10	\$ 0	\$ 5	\$ 8	\$ 2
Total	\$ 707	\$ 932	\$ 2,286	\$ 370	\$ 1,742	\$ 3,124	\$ 2,527

a) Fees to third-party vendors who will perform retrocommissioning services.

b) Incentives paid to customers for Retro Commissioning measures including facility control modifications that will help enable long-term energy savings.

c) Employee expenses including mileage, training, conference attendance and misc.

#### **2011 Goals and Metrics Information**

Demand Savings (kW reduction Goal)	1,066.4
Annual Energy Savings (KWh Reduction Goal)	9,717,885
Lifetime Energy Savings (kWh Reduction Goal)	96,870,305
Annual Cost Rate (\$/kWh)	\$ 0.321
Lifetime Cost Rate (\$/kWh)	\$ 0.032
Electric b/c Ratio	3.20
Total Resource b/c Ratio	2.18

## CL&P Standard Filing Requirement

### O&M Retro Commissioning

#### CL&P Program Notes

**Budget /FTE**

3.7 FTE for program administration.

**Goal**

Demand Savings (kW Reduction Goal)	1,066
Lifetime Energy Savings (kWh Reduction Goal)	96,870,305

**Cost/kWh (Cost/Unit)**

\$/Annualized kW	\$	0.321
\$/Lifetime kWh	\$	0.032

**Goal Setting Methodology**

The 2011 planning model is based on 2009 actual results.  
Savings were adjusted based on new incentive structure.

**Metric Changes**

None

**The United Illuminating Company**  
**EL-25 Standard Filing Requirement**  
**2011**

**O&M Services** <sup>(1)</sup>

**Baseline Assumptions:**

<b>Budget Projections</b>	All C&I customers					
	<b>2009 Act</b>	<b>2010 Revised Bud</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projected</b>	<b>2011 Bud</b>	<b>2012 Bud</b>
Market						
Labor						
UI Labor	\$ 43,040	\$ 44,650	\$ 29,556	\$ 44,650	\$ 45,811 a)	\$ 48,102
Contractor Staff	\$ -	\$ -	\$ -	\$ -	\$ - b)	\$ -
Total Labor	\$ 43,040	\$ 44,650	\$ 29,556	\$ 44,650	\$ 45,811	\$ 48,102
Materials & Supplies	\$ -	\$ 1,000	\$ 26	\$ 1,000	\$ 1,000 c)	\$ 1,000
Outside Services	\$ 45,267	\$ 274,500	\$ 146,402	\$ 219,603	\$ 320,000 d)	\$ 152,279
Incentives	\$ 35,217	\$ 191,933	\$ 60,892	\$ 91,338	\$ 145,000 e)	\$ 100,366
Marketing	\$ -	\$ 10,000	\$ -	\$ -	\$ 8,000 f)	\$ 5,537
Other	\$ 1,000	\$ 1,000	\$ -	\$ 1,000	\$ 1,000 g)	\$ 1,000
Administrative Expenses	\$ 8,555	\$ 7,000	\$ 3,759	\$ 7,000	\$ 6,864 h)	\$ 6,864
<b>Total</b>	<b>\$ 133,079</b>	<b>\$ 530,083</b>	<b>\$ 240,635</b>	<b>\$ 364,591</b>	<b>\$ 527,675</b>	<b>\$ 315,148</b>

(1) Includes O&M Svcs, RetroCx, BSC, PRIME and K-12 Pilot

- a) .40 FTE
- b) no comment
- c) expenses shared by O&M, BSC, Training, RetroCx, and K-12 Pilot
- d) expenses shared by O&M, BSC, Training, RetroCx, and K-12 Pilot
- e) no comment
- f) expenses shared by O&M, BSC, Training, RetroCx, and K-12 Pilot
- g) no comment
- h) expenses shared by O&M, BSC, Training, RetroCx, and K-12 Pilot

**Goals and Metrics Information:**

**Savings**

	<b>2011</b>
Demand Savings (kW)	168
Annual Energy Savings (kWh)	1,185,934
Lifetime Energy Savings (kWh)	7,275,728
Annual Cost Rate (\$/kWh)	\$ 0.445
Lifetime Cost Rate (\$/kWh)	\$ 0.073
Cost per kW	\$ 3,142
Electric System B/C Ratio	1.61
Total Resource B/C Ratio	0.92

# The United Illuminating Company LF-26 Standard Filing Requirement

## O&M Services

### Goal - Program Costs (000's)

Year	Budget	Actual	% of Goal
			Achieved
2000	\$0	\$0	0.0%
2001	\$100	\$0	0.0%
2002	\$235	\$0	0.0%
2003	\$167	\$70	42.2%
2004	\$182	\$184	101.1%
2005	\$182	\$108	59.3%
2006	\$352	\$72	20.5%
2007	\$322	\$141	43.8%
2008	\$322	\$17	5.3%
2009	\$658	\$133	20.2%
2010	\$530		
2010 YTD (Aug)	\$530	\$241	45.4%
2010 YE Projected	\$530	\$265	50.0%
2011	\$528		

### Goal - Installed kWh Savings (000's)

Year	Goal	Actual	% of Goal
			Achieved
2000	-	-	0.0%
2001	-	-	0.0%
2002	-	-	0.0%
2003	200	-	0.0%
2004	200	-	0.0%
2005	200	2,206	1103.0%
2006	2,000	1,453	72.7%
2007	2,000	2,386	119.3%
2008	1,300	-	0.0%
2009	3,712	498	13.4%
2010	2,196		
2010 YTD (Aug)	2,196	128	5.8%
2010 YE Projected	2,196	878	40.0%
2011	1,186		

### Goal - Installed kW Savings

Year	Goal	Actual	% of Goal
			Achieved
2000	-	-	0.0%
2001	-	-	0.0%
2002	-	-	0.0%
2003	34	-	0.0%
2004	23	-	0.0%
2005	23	674	2930.4%
2006	210	237	112.8%
2007	210	55	26.0%
2008	100	-	0.0%
2009	90	27	30.0%
2010	70		
2010 YTD (Aug)	70	0	0.0%
2010 YE Projected	70	0	0.0%
2011	168		

### Goal - Lifetime kWh Savings (000's)

Year	Goal	Actual	% of Goal
			Achieved
2000	-	-	0.0%
2001	-	-	0.0%
2002	-	-	0.0%
2003	3,000	-	0.0%
2004	2,000	-	0.0%
2005	2,000	22,061	1103.1%
2006	20,000	21,790	109.0%
2007	20,000	35,790	179.0%
2008	13,000	-	0.0%
2009	18,562	3,640	19.6%
2010	10,980		
2010 YTD (Aug)	10,980	983	9.0%
2010 YE Projected	10,980	4,392	40.0%
2011	7,276		

### Program Ratios

Year	\$/kWh		\$/LT kWh		\$/kW	
	Target	Actual	Target	Actual	Target	Actual
2000	\$0.000	\$0.000	\$0.000	\$0.000	\$0	\$0
2001	\$0.000	\$0.000	\$0.000	\$0.000	\$0	\$0
2002	\$0.000	\$0.000	\$0.000	\$0.000	\$0	\$0
2003	\$0.835	\$0.000	\$0.056	\$0.000	\$4,912	\$0
2004	\$0.910	\$0.000	\$0.091	\$0.000	\$7,913	\$0
2005	\$0.910	\$0.049	\$0.091	\$0.005	\$7,913	\$160
2006	\$0.176	\$0.050	\$0.018	\$0.003	\$1,676	\$455
2007	\$0.161	\$0.059	\$0.016	\$0.004	\$1,533	\$2,578
2008	\$0.248		\$0.025		\$3,220	
2009	\$0.177	\$0.267	\$0.035	\$0.037	\$7,311	\$4,926
2010	\$0.241		\$0.048		\$7,571	
2010 YTD (Aug)	\$0.241	\$1.880	\$0.048	\$0.245	\$7,571	\$0
2010 YE Projected	\$0.241	\$0.302	\$0.048	\$0.060	\$7,571	\$0
2011	\$0.445		\$0.073		\$3,142	

#### Notes

- 2000-2002 data from LF-26 filed in 03-01-01
- 2003 data reflects budgets approved in 03-01-01
- 2004 data represents the revised budget allocations
- Program jointly operated with CL&P
- O&M RFP contains Administrative costs for RetroCX, BOC, Envinta, and BSC
- 2011 \$/kW is calculated with the total budget. Only O&M contributes to peak demand savings; see notes for more information.

# The United Illuminating Company LF-26 Standard Filing Requirement

## Program Notes - O&M Services

### Budget(FTE):

- 1) budget includes .40 FTEs for staffing
- 2) 2011 proposed overall budget is within 1% of the '10 revised (04/2010) budget
- 3) 2011 budget houses administrative costs for O&M, BSC, RetroCx, and Prime
- 4) incentives offered for O&M type measures based on EO incentive structure
- 5) budget includes specialized training costs and the projected customer co-pay
- 6) Business Sustainability Challenge (BSC) is approximately 9% of the overall O&M budget
- 7) K-12 pilot is approximately 7.5% of the overall O&M budget
- 8) Prime program is approximately 16% of the overall O&M budget
- 9) RetroCx program is approximately 42% of the overall O&M budget

### Goal:

- 1) 2011 target of 1,200,786 kWh; a decrease of approx. 45%
- 2) 2011 target of 172 kW; significantly increased to account for RetroCx impacts
- 3) any direct savings from Business Sustainability implementation are included this program
- 4) any direct savings from Prime implementation are included this program
- 5) any savings from cross-promotional efforts are accounted for in either EO or ECB
- 6) goals impacted by the overall over-expenditure in other programs
- 7) marketing focus continues throughout UI territory
- 8) adopted CL&P gross realization rates to simulate statewide realization rates
- 9) No kW savings are forecasted in O&M for 2010 due to the sector wide budget issues

### Cost/kWh (Cost/Unit):

- 1) 2011 kWh and kW projections have been reduced to reflect the uncertainty of RetroCx.
  - a. program initiatives such as BSC, Prime will produce few peak kW savings.
- 2) 2011 total projected cost rates: annual = \$0.439/ kWh, lifetime = \$.065/ kWh
- 3) 2011 projected \$\$/kW = \$3,073 for O&M. Prime and BSC do not contribute to kW savings
- 4) estimated RetroCx cost rates based on CL&P data from 2005-2008 plans - 6 M kWh projected in '08
  - a. RetroCx based on 2 projects and start-up costs
  - b.  $6.0 \text{ M kWh} / 3 \text{ yrs} = 2.0 \text{ M kWh} / \text{yr} * 20\% = \sim 400,000 \text{ kWh}$
- 5) The component cost rate breakdown for O&M Services is as follows:

	Budget	kWh	kW	\$/ kWh	\$/ kW	\$/ LkWh
O&M Svcs	132	211	54	\$ 0.626	\$ 2,466	\$ 0.1257
RetroCx	224	449	114	\$ 0.499	\$ 1,955	\$ 0.0623
Prime	86	470	0	\$ 0.183	n/a	\$ 0.0366
BSC	46	56	0	\$ 0.820	n/a	\$ 0.1634
K-12	40	n/a	n/a	n/a	n/a	n/a

- 6) No kW savings are forecasted in O&M for 2010 due to the sector wide budget issues

### Metric Changes:

- 1) all savings are reported as net values

**YGS Standard Filing Requirement**

**Operations & Maintenance**

<b><u>Budget Projections</u></b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection *</b>	<b>2011 Budget</b>
Labor	n/a	n/a	\$ 5,317	\$ 10,775	\$ 25,000	\$ 3,279	\$ 11,611	\$ 65,170
Outside Service	n/a	n/a	\$ 2,090	\$ 3,431	\$ 9,100	\$ 517	\$ 775	\$ 5,500
Materials & Supplies	n/a	n/a	\$ 101	\$ -	\$ 50	\$ 618	\$ 928	\$ 500
Incentives	n/a	n/a	\$ -	\$ 3,250	\$ 65,050	\$ 116,347	\$ 185,015	\$ 125,930
Marketing	n/a	n/a	\$ 742	\$ 430	\$ 300	\$ 771	\$ 1,156	\$ 2,600
Administrative Expense	n/a	n/a	\$ -	\$ -	\$ 500	\$ 21	\$ 31	\$ 300
Total			\$ 8,249	\$ 17,885	\$ 100,000	\$ 121,553	\$ 199,515 *	\$ 200,000 a

<b><u>Energy Savings Information</u></b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Goals</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goals</b>
Annual Energy Savings (ccf Reduction Goal)	n/a	n/a	n/a	6,683	17,973	66,979	109,939	81,669 b
Lifetime Energy Savings (ccf Reduction Goal)	n/a	n/a	n/a	66,830	179,732	669,798	1,099,401	653,353 c
Annual Cost Rate (\$/ccf)	n/a	n/a	n/a	\$ 2.68	\$ 5.56	\$ 1.81	\$ 1.81	\$ 2.45 d=a/b
Lifetime Cost Rate (\$/ccf)	n/a	n/a	n/a	\$ 0.27	\$ 0.56	\$ 0.18	\$ 0.18	\$ 0.31 e=a/c
Total Gas Benefit	n/a	n/a	n/a	\$ 60,492	\$ 186,048	\$ 1,864,655	\$ 1,138,038	\$ 600,936 f
Total Gas System Benefit-Cost Ratio	n/a	n/a	n/a	\$ 3.38	\$ 1.86	\$ 15.34	\$ 5.70	\$ 3.00 g=f/a
Customers Served	n/a	n/a	n/a	1	12	3	5	23 h
Lifetime Savings per Customer (ccf)	n/a	n/a	n/a	66,830	14,978	223,266	223,266	28,125 i=c/h
Program Cost per Customer	n/a	n/a	n/a	\$ 17,885	\$ 8,333	\$ 40,518	\$ 40,518	\$ 8,609 k=a/h
Benefit per Customer	n/a	n/a	n/a	\$ 60,492	\$ 15,504	\$ 621,552	\$ 231,112	\$ 25,868 l=f/h

**Program Costs**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	\$ 136,969	\$ 8,249	6%
2009	\$ 100,000	\$ 17,885	18%
2010 YTD (Aug)	n/a	\$ 121,553	122%
2010 YE projection	\$ 100,000	\$ 199,515	200%
2011	\$ 200,000	n/a	-

**Goal - Participation/Units**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	n/a	-
2009	6	1	17%
2010 YTD (Aug)	n/a	3	-
2010 YE projection	12	5	41%
2011	23	n/a	-

**Goal - Annual ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	n/a	-
2009	29,042	6,683	23%
2010 YTD (Aug)	n/a	66,979	-
2010 YE projection	17,973	109,939	612%
2011	81,669	n/a	-

**Goal - Lifetime ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	n/a	-
2009	232,339	66,830	29%
2010 YTD (Aug)	n/a	669,798	-
2010 YE projection	179,732	1,099,401	612%
2011	653,353	n/a	-

\* O&M for YGS is projected to go over the budget; However, the overspending will be covered by under spending on YGS Energy Opportunity program.

**CNG Standard Filing Requirement**

**Operations & Maintenance**

<b>Budget Projections</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Budget</b>	
Labor	n/a	n/a	\$ 2,643	\$ 7,821	\$ 10,000	\$ 2,977	\$ 4,466	\$ 61,180	
Outside Service	n/a	n/a	\$ -	\$ 21	\$ 4,500	\$ 1,058	\$ 1,587	\$ 9,000	
Materials & Supplies	n/a	n/a	\$ -	\$ -	\$ 25	\$ 502	\$ 752	\$ 50	
Incentives	n/a	n/a	\$ -	\$ -	\$ 35,075	\$ -	\$ 18,257	\$ 28,970	
Marketing	n/a	n/a	\$ 570	\$ 167	\$ 150	\$ 585	\$ 877	\$ 300	
Administrative Expense	n/a	n/a	\$ 7	\$ -	\$ 250	\$ -	\$ -	\$ 500	
<b>Total</b>			<b>\$ 3,220</b>	<b>\$ 8,008</b>	<b>\$ 50,000</b>	<b>\$ 5,122</b>	<b>\$ 25,940</b>	<b>\$ 100,000</b>	a

<b>Energy Savings Information</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Goals</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goals</b>	
Annual Energy Savings (ccf Reduction Goal)	n/a	n/a	n/a	n/a	9,691	\$ -	9,691	18,788	b
Lifetime Energy Savings (ccf Reduction Goal)	n/a	n/a	n/a	n/a	96,912	\$ -	96,912	150,303	c
Annual Cost Rate (\$/ccf)	n/a	n/a	n/a	n/a	\$ 5.16	-	\$ 2.68	\$ 5.32	d=a/b
Lifetime Cost Rate (\$/ccf)	n/a	n/a	n/a	n/a	\$ 0.52	-	\$ 0.27	\$ 0.67	e=a/c
Total Gas Benefit	n/a	n/a	n/a	n/a	\$ 100,317	\$ -	\$ 138,244	\$ 138,244.43	f
Total Gas System Benefit-Cost Ratio	n/a	n/a	n/a	n/a	\$ 2.01	\$ -	\$ 5.33	\$ 1.38	g=f/a
Customers Served	n/a	n/a	n/a	n/a	6	-	6	5	h
Lifetime Savings per Customer (ccf)	n/a	n/a	n/a	n/a	16,152	-	16,152	28,125	i=c/h
Program Cost per Customer	n/a	n/a	n/a	n/a	\$ 8,333	-	\$ 4,323	\$ 18,711.89	k=a/h
Benefit per Customer	n/a	n/a	n/a	n/a	\$ 16,720	-	\$ 23,041	\$ 25,868.14	l=f/h

**Program Costs**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	n/a	-
2009	\$ 8,008	n/a	-
2010 YTD (Aug)	n/a	\$ 50,000	-
2010 YE projection	\$ 50,000	\$ 25,940	52%
2011	\$ 100,000	n/a	-

**Goal - Participation/Units**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	n/a	-
2009	3	n/a	-
2010 YTD (Aug)	n/a	0	-
2010 YE projection	6	6	100%
2011	5	n/a	-

**Goal - Annual ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	n/a	-
2009	14,540	n/a	-
2010 YTD (Aug)	n/a	0	0%
2010 YE projection	9,691	9,691	67%
2011	18,788	n/a	-

**Goal - Lifetime ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	n/a	-
2009	116,318	n/a	-
2010 YTD (Aug)	n/a	0	-
2010 YE projection	96,912	96,912	100%
2011	150,303	n/a	-

**SCG Standard Filing Requirement**

**Operations & Maintenance**

<b>Budget Projections</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Budget</b>	<b>2010 YTD(Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Budget</b>	
Labor	n/a	n/a	\$ 3,175	\$ 2,770	\$ 10,000	\$ 1,401	\$ 2,102	\$ 61,180	
Outside Service	n/a	n/a	\$ -	\$ 21	\$ 4,500	\$ 502	\$ 752	\$ 9,000	
Materials & Supplies	n/a	n/a	\$ -	\$ -	\$ 25	\$ 618	\$ 927	\$ 50	
Incentives	n/a	n/a	\$ 5,538	\$ -	\$ 35,075	\$ -	\$ 18,245	\$ 28,970	
Marketing	n/a	n/a	\$ 570	\$ 167	\$ 150	\$ 199	\$ 299	\$ 300	
Administrative Expense	n/a	n/a	\$ -	\$ -	\$ 250	\$ -	\$ -	\$ 500	
Total			\$ 9,283	\$ 2,957	\$ 50,000	\$ 2,721	\$ 22,326	\$ 100,000	a

<b>Energy Savings Information</b>	<b>2006 Actuals</b>	<b>2007 Actuals</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>2010 Goals</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projection</b>	<b>2011 Goals</b>	
Annual Energy Savings (ccf Reduction Goal)	n/a	n/a	1,377	-	9,691	-	4,327	18,788	b
Lifetime Energy Savings (ccf Reduction Goal)	n/a	n/a	13,770	-	96,912	-	43,272	150,303	c
Annual Cost Rate (\$/ccf)	n/a	n/a	\$ 6.74	n/a	\$ 5.16	-	\$ 5.16	\$ 5.32	d=a/b
Lifetime Cost Rate (\$/ccf)	n/a	n/a	\$ 0.67	n/a	\$ 0.52	-	\$ 0.52	\$ 0.67	e=a/c
Total Gas Benefit	n/a	n/a	\$ 14,254	n/a	\$ 100,317	\$ -	\$ 44,793	\$ 138,244	f
Total Gas System Benefit-Cost Ratio	n/a	n/a	\$ 1.54	n/a	\$ 2.01	\$ -	\$ 2.01	\$ 1.38	g=f/a
Customers Served	n/a	n/a	1	n/a	6	-	3	5	h
Lifetime Savings per Customer (ccf)	n/a	n/a	13,770	n/a	16,152	-	16,152	28,125	i=c/h
Program Cost per Customer	n/a	n/a	\$ 9,283	n/a	\$ 8,333	-	\$ 8,333	\$ 18,712	k=a/h
Benefit per Customer	n/a	n/a	\$ 14,254	n/a	\$ 16,720	-	\$ 16,720	\$ 25,868	l=f/h

**Program Costs**

Year	<b>Budget</b>	<b>Actual</b>	<b>% of Budget</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	\$ 82,146	9,283	11%
2009	\$ 50,000	\$ 2,957	6%
2010 YTD (Aug)	n/a	\$ 2,721	-
2010 YE projection	\$ 50,000	\$ 22,326	45%
2011	\$ 100,000	n/a	-

**Goal - Participation/Units**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	1	-
2009	5	n/a	-
2010 YTD (Aug)	n/a	-	-
2010 YE projection	6	3	45%
2011	5	n/a	-

**Goal - Annual ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	1,377	-
2009	18,788	-	0%
2010 YTD (Aug)	n/a	-	-
2010 YE projection	9,691	4,327	45%
2011	18,788	n/a	-

**Goal - Lifetime ccf savings**

Year	<b>Goal</b>	<b>Actual</b>	<b>% of Goal</b>
2006	n/a	n/a	-
2007	n/a	n/a	-
2008	n/a	13,770	-
2009	116,318	-	0%
2010 YTD (Aug)	n/a	-	-
2010 YE projection	96,912	43,272	45%
2011	150,303	n/a	-

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## **PRIME (Process Reengineering for Increased Manufacturing Efficiency) (Electric)**

- Objective:** The objective of the PRIME program is to teach manufacturers how to implement “Lean Manufacturing” techniques. Lean manufacturers produce more with existing resources by eliminating non-value-added activities and by aligning production to meet actual customer demand. The PRIME program moves manufacturers away from traditional batch-based production toward production aligned with customer demand or “pull”. A company that employs Lean principles is focused on excellence through “Kaizen” (continuous improvement) and the relentless elimination of waste. The implementation of Lean manufacturing techniques typically results in more efficient use of energy as well as reduced inventory and delivery times, improved quality and increased production capacity.
- Target Market:** The PRIME program specifically targets industrial customers of all sizes that are currently using traditional manufacturing techniques and are interested in fostering a “Lean” culture of continuous improvement. The program is available to customers whose Standard Industrial Classification (“SIC”) is in the range of 2000 to 3999.
- Program Description:** The PRIME program offers eligible customers the opportunity to participate in up to four separate three-and-a-half day Kaizen events at their facility. The first two events are at no cost to the customer. The third and fourth events require the customer to contribute 50 percent of the cost. Events thereafter are fully funded by the customer.
- Each event involves the assembly of a Kaizen team of participants from various departments within the company to address specific areas for improvement. Vendors under contract with the Electric Companies are responsible for working with the customer to identify and quantify the projected productivity improvement and corresponding savings potential and to provide coaching and training to the team. Projects chosen are selected on the basis of potential electric energy

savings and overall impact (improvement) to specific processes and/or product lines.

Each event begins with roughly a half-day of team training on Lean Manufacturing principles and techniques, followed by three days of implementation of the selected improvement project. There is also a follow-up review conducted approximately 90 days after the conclusion of the event to determine the final improvements and to assure that the improvements persist. The Electric Companies' Program Administrator attends this follow-up to review the process improvements and to conduct a brief walkthrough of the plant to identify other potential energy efficiency opportunities.

**Marketing Strategy:** Marketing efforts are conducted predominantly by program vendors but also by utility staff, who identify targets through customer knowledge. Program vendors are selected by means of a Request for Proposal ("RFP") involving a bid and qualification process. A new RFP was released soliciting bids in June 2010 and vendors for 2011-2012 were selected in September 2010. Selected vendors agree to perform the required services at a standard price determined by this process. These services include marketing and promotion of the program to potential participants, obtaining signed contracts between the vendor and customer, and providing an estimate of energy savings to the Electric Companies' Program Administrator in order to assess the cost-effectiveness of the project to meet program parameters. The Electric Companies provide the vendors with the customer's electric usage information for savings calculations.

The Electric Companies will augment enrollment using actions that may include:

- writing and distribution of case studies (also referred to as Success Stories or Testimonials) to various relevant marketing channels;

- targeted mailings to customers (print and e-mail) directing them to the two Company web sites and CTEnergyinfo.com, and;
- articles and notices posted in electronic Electric Companies' newsletters.

**Incentive Strategy:** While there are no incentives paid directly to the customer, the cost of the vendor's services is paid by the Electric Companies in the manner previously described.

**Goals:** Refer to Standard Filing Requirements for program goals.

**New Program Issues:** Given that PRIME participants learn the value of continuous process improvement, they will be a target customer segment for participating in the BSC being developed and conducted under the O&M program.

### **Connecticut Energy Advisory Board (CEAB)**

The Connecticut Energy Advisory Board (CEAB) recently completed its "2010 Comprehensive Plan for the Procurement of Energy Resources" and listed one recommendation (p. 316) for the PRIME program. This recommendation, which has been reviewed by the Companies and the EEB is as follows, along with a response by the Companies' and the EEB:

1. Partner with Manufacturing Associations in Connecticut to provide some of the program funding and to enable them to play a major role in promoting this program to their members.

**Response:** MAC already plays a major role in the PRIME program. In addition to its involvement, CBIA also promotes the program to its membership. At this time, neither organization offers additional funding for subsidization of the PRIME program.

## CL&P Standard Filing Requirement

### Prime

All dollar values are in \$000

<u>Budget Projections</u>	<u>2008 Actuals</u>	<u>2009 Actuals</u>	<u>Revised 2010 Budget</u>	<u>2010 YTD (Aug)</u>	<u>2010 YE Projected</u>	<u>2011 Budget</u>	<u>2012 Budget</u>
Labor							
NU Labor	\$ 20	\$ 27	\$ 65	\$ 23	\$ 34	\$ 60	\$ 60
Contractor Staff	\$ -	\$ -	\$ -	\$ 0	\$ 0	\$ -	\$ -
Total Labor	\$ 20	\$ 27	\$ 65	\$ 23	\$ 35	\$ 60	\$ 60
Materials & Supplies	\$ -	\$ 0	\$ 2	\$ 0	\$ 0	\$ 2	\$ 1
Outside Services	\$ -	\$ -	\$ 10	\$ 3	\$ 10	\$ 10	\$ 7
Incentives	\$ 427	\$ 365	\$ 397	\$ 313	\$ 426	\$ 383	\$ 272
Marketing	\$ -	\$ 1	\$ 20	\$ 0	\$ 1	\$ 20	\$ 15
Administrative Expenses	\$ 1	\$ 1	\$ 10	\$ 1	\$ 1	\$ 10	\$ 7
Other	\$ 1	\$ -	\$ 3	\$ 0	\$ 0	\$ 3	\$ 2
Total	\$ 449	\$ 394	\$ 507	\$ 341	\$ 473	\$ 488	\$ 365

### 2011 Goals and Metrics Information

Demand Savings (kW reduction Goal)	-
Annual Energy Savings (KWh Reduction Goal)	1,388,948
Lifetime Energy Savings (kWh Reduction Goal)	6,934,739
Annual Cost Rate (\$/kWh)	\$ 0.352
Lifetime Cost Rate (\$/kWh)	\$ 0.070
Electric b/c Ratio	1.58
Total Resource b/c Ratio	19.16

## CL&P Standard Filing Requirement

### Prime

### CL&P Program Notes

#### Budget /FTE

0.5 FTE for Program Administration

#### Goal

Customers	50
Demand Savings (kW Reduction Goal)	0
Lifetime Energy Savings (kWh Reduction Goal)	6,934,739

#### Cost/kWh (Cost/Unit)

\$/Annualized kW	n/a
\$/Lifetime kWh	\$ 0.070

#### Goal Setting Methodology

The 2011 planning model is based on 2009 actual results.  
Savings were adjusted based on new incentive structure.

#### Metric Changes

None

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## CHAPTER FOUR: EDUCATION and OUTREACH

### eeCommunities (Electric)

**Objective:** The purpose of the eeCommunities program is to develop a sustainable and energy-efficiency ethic with Connecticut's residents, businesses and municipalities. The program encourages communities in Connecticut's towns and cities to invest in energy efficiency in buildings—schools, town halls, libraries, businesses, homes and apartments.

The objective of this marketing and educational outreach program is to utilize locally organized efforts to help advance the message of energy efficiency and to raise awareness of and promote Energy Efficiency Fund programs. The eeCommunities program is designed to promote participation in all of the Energy Efficiency Fund's residential, limited-income, business and municipal programs through technical, financial, educational and marketing assistance.

**Target Market:** This program educates and provides outreach to residential, business and municipal energy consumers through both local communities and organizations that promote energy efficiency, clean energy and environmental advocacy (e.g., Municipal Energy Task Forces, Green Teams, etc.) The program also works with town officials, town facility managers, and boards of education.

**Program Design:** In 2011, the eeCommunities program will focus on implementing methods to better reach our goals in educational outreach, training, and direct work with community groups, municipalities, and businesses throughout the state. This will include an online Energy Efficiency Fund Program Guidebook and Toolkit, and eeCommunities web site. Other opportunities will be investigated for future consideration. These opportunities include eeCommunities Grants, Business Outreach, Municipality Outreach, Community Energy Planning Initiative, eeCommunities Leadership Series, and Student eeCommunities Ambassadors.

## 2011 Major Initiatives with Communities, Vendors and Stakeholder Partners

- eeCommunities Resources
  - Overview brochure explaining all Fund programs, incentives/rebates and how to participate for residential, business or municipal customers
  - Online Energy Efficiency Fund Program Guidebook & Toolkit
  - This will be a flip through, interactive online book hosted on the program's web page: [www.eecommunities.net](http://www.eecommunities.net). The book will be downloadable in whole or in sections and will also be available for communities and other entities in a hard copy format.
  - eeCommunities Website
  - A new micro-site will serve as a grassroots online energy-efficiency tool for Connecticut's communities. The [www.eecommunities.net](http://www.eecommunities.net) site will feature:
    - an interactive map of Connecticut and its individual municipalities; discussions are planned with the CCEF to explore options to collaborate on this feature
    - information for each municipality regarding:
      - whether the municipality has signed up for EPA Community Energy Challenge;
      - whether the community has energy benchmarked its municipal buildings;
      - municipal contact for the utility account;
      - list of Energy Efficiency Fund incentives for municipal buildings;
      - Links to communities' clean energy task force web sites/calendar of events.
    - a general overview of energy conservation;

- tips on promoting programs, blank sign-up forms and a link to request Community Tool Kits.
  - information about the CFL fundraising program and participating schools, non-profits and organizations;
  - a link to the [www.ctenergyinfo.com](http://www.ctenergyinfo.com) event calendar;
  - a link to the EPA's Community Energy Challenge web site and its free webinars;
  - a link to the Companies social networking communities Facebook and Twitter.
- eeCommunities Grants
    - Consider offering up to 30 eeCommunities Grants on a statewide basis to community groups, clean energy task forces, municipalities and other organizations wishing to initiate educational and outreach efforts in order to promote Energy Efficiency Fund programs, energy-efficient technologies and energy conservation behaviors. eeCommunities Program Administrators will research how the grant process would work and whether other similar groups have had success with grants.
- Business Outreach
    - The 2011 eeCommunities program will work with local chambers of commerce, utility account executives or account managers, trade associations, farmers' markets and cultural entities to promote business, municipal and large commercial Energy Efficiency Fund programs within its territory. Such assistance will include speaking engagements and promotion of the eeCommunities program.
- Increased collaboration with the CCEF to further leverage community relationships and services
- eeCommunities Vendor Selection Process
    - In 2011, guidelines for vendor selection in eeCommunities will be created. These guidelines will

describe the process by which vendors will be chosen for community initiatives including town or task force conservation challenges and any special incentives offered to residents/members as part of eeCommunities outreach.

### **Municipality Outreach**

The eeCommunities program will increase assistance to municipalities, clean energy task forces and other entities that want to make their municipal buildings more energy efficient.

General information about the Energy Efficiency Fund incentives a municipality has utilized will be posted on the eeCommunities website. This may be used as a benchmark for municipal officials and facility managers, Boards of Education, and energy task forces.

Participating municipal officials, facility managers and energy task forces will be provided with various forms of technical and financial assistance, including:

- technical assistance in acquiring energy consumption data for entry into the EPA's Portfolio Manager software and training on entering data correctly for continued benchmarking;
  - forums to educate municipal facility managers, Boards of Education and municipal officials on Energy Efficiency Fund programs and initiatives;
  - a finance and performance contracting seminar to assist communities in finding the best approach to hiring contractors to make energy-efficiency improvements to municipal and school buildings.

### **Resources to Increase Outreach**

In 2011, the eeCommunities program will attempt to involve additional utility resources to increase outreach. These resources include account executives and employees involved in community relations efforts. Implanting resources in town activities will offer the program the benefit of a credible, trusted source in most town Energy Task Forces, Rotary Clubs, etc.

This group liaison would be expected to spread awareness of our programs to the group and encourage use of our resources. The group would be expected to utilize this source to gain access to information and eeCommunities resources.

### Potential Initiatives in 2011

#### **Community Energy Planning Initiative**

To encourage the development and implementation of community energy planning for all Connecticut communities, the eeCommunities program will investigate establishing a *Community Energy Planning Initiative* to assist and train communities on energy infrastructure planning.

This initiative would provide both technical assistance and offer local government officials and personnel a unique opportunity to learn more about the key components of energy planning and the importance of incorporating energy goals and policies in local planning and zoning documents.

#### **eeCommunities Leadership Series**

The feasibility of conducting a series of regional Leadership Series forums across the state on best practices for promoting Energy Efficiency Fund programs, energy conservation and energy-efficient technologies will be researched. These regional forums and the ideas they produce would be made available on the eeCommunities web site.

#### **Student eeCommunities Ambassadors**

The 2011 eeCommunities program will research the possibility of working with students in elementary, middle and high schools across the state, as well as colleges and universities, to develop and train Student eeCommunities Ambassadors.

Such training and development would include a stint at a Student eeCommunities Ambassador Institute, similar to the *eesmarts* program's Summer Institute. The institute would be conducted for elementary, middle and high school participants and would include hands-on training in conducting a school energy audit and school conservation challenges. The Institute

would also review the basics of how to promote other school sustainability initiatives (e.g., recycling, riding the bus, CFL fundraisers, school community gardens, etc.).

A similar Student eeCommunities Ambassador Institute will be investigated for undergraduate and graduate-level students enrolled at Connecticut universities.

### **Neighbor To Neighbor Energy Challenge**

The Neighbor to Neighbor (N2N) Energy Challenge is a partnership of nine entities including the Clean Energy Fund that received an US Department of Energy Efficiency Conservation Block Grant under Funding Opportunity Announcement DE-FOA-0000148. The project will engage households in fourteen towns to set specific and measurable goals for energy efficiency, conservation, and renewable energy. The Energy Efficiency Board provided a letter of support on December 10, 2009 for this effort. With the N2N receiving an award this summer, the Companies will cooperate and assist this partnership as it begins to formally develop its program per the EEB's letter of support.

Goals: Refer to Standard Filing Requirements for program goals.

## CL&P Standard Filing Requirement

### ee Communities

All dollar values are in \$000

<u>Budget Projections</u>	2008 <u>Actuals</u>	2009 <u>Actuals</u>	Revised <u>2010 Budget</u>	2010 <u>YTD (Aug)</u>	2010 <u>YE Projected</u>	2011 <u>Budget</u>	2012 <u>Budget</u>
Labor:							
NU Labor	\$ -	\$ 33	\$ 41	\$ 60	\$ 89	\$ 146	\$ 146
Contractor Staff	\$ -	\$ 3	\$ -	\$ 5	\$ 8	\$ -	\$ -
Total Labor	\$ -	\$ 37	\$ 41	\$ 65	\$ 97	\$ 146	\$ 146
Materials & Supplies	\$ -	\$ 0	\$ -	\$ 1	\$ 1	\$ -	\$ -
Outside Services	\$ -	\$ 3	\$ 615	\$ 12	\$ 418	\$ 620 a)	\$ 459
Marketing	\$ -	\$ 4	\$ 90	\$ 25	\$ 38	\$ 80	\$ 42
Administrative Expense	\$ -	\$ 2	\$ 2	\$ 1	\$ 2	\$ 2	\$ 1
Other	\$ -	\$ 1	\$ 2	\$ 0	\$ 0	\$ 2	\$ 1
Total	\$ -	\$ 46	\$ 750	\$ 104	\$ 556	\$ 850	\$ 650

a) Increase for Behavioral Based Pilot; Includes \$120K for Labor and \$550K for outside services. Includes \$67K for N2N (\$200K over three years)

### 2011 Goals and Metrics Information

Design/Conduct behavioral pilot.

Market - Not for profit energy efficiency organizations.

Work with local and municipal 'green' organizations.

**The United Illuminating Company**  
**EL-25 Standard Filing Requirement**  
**2011**

**EE Communities / Behavioral Pilot**

**Baseline Assumptions:**

Market Not for profit energy efficiency organizations. Municipal "green" organizations

<b><u>Budget Projections</u></b>	<b><u>2009 Act</u></b>	<b><u>2010 Revised Bud</u></b>	<b><u>2010 YTD (Aug)</u></b>	<b><u>2010 YE Projected</u></b>	<b><u>2011 Bud</u></b>	<b><u>2012 Bud</u></b>
Labor						
UI Labor	\$ -	\$ -	\$ 2,493	\$ 9,972	\$ 26,822	\$ 28,163
Contractor Staff	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Labor	\$ -	\$ -	\$ 2,493	\$ 9,972	\$ 26,822	\$ 28,163
Materials & Supplies	\$ 18,828	\$ 10,000	\$ -	\$ 10,000	\$ 6,000	\$ 6,000
Outside Services	\$ 25,241	\$ 220,000	\$ 17,444	\$ 206,962	\$ 132,000	\$ 130,470
Incentives	\$ 855	\$ -	\$ 1,900	\$ 1,900	\$ -	\$ -
Marketing	\$ 14,788	\$ 20,000	\$ 250	\$ 20,000	\$ 12,000	\$ 12,000
Other	\$ 43	\$ -	\$ -	\$ -	\$ -	\$ -
Administrative Expenses	\$ 2,134	\$ -	\$ 1,166	\$ 1,166	\$ -	\$ -
<b>Total</b>	<b>\$ 61,889</b>	<b>\$ 250,000</b>	<b>\$ 23,253</b>	<b>\$ 250,000</b>	<b>\$ 176,822</b>	<b>\$ 176,633</b>

**Goals and Metrics Information:**

**2011**

Outreach to Energy task force to create local energy efficiency goals and objectives

8

## SmartLiving Center & Museum Partnerships (Electric)

Objective: The objective of the SmartLiving Center and Museum Partnerships is to educate Connecticut residents about the importance of energy efficiency through an educational center, exhibits and partnerships with museums. For several years, the Fund's strategic partnerships with learning centers and museums have created a cohesive branding and educational opportunity for the Fund throughout Connecticut. The effort has three approaches that are used:

### **1. Educational Centers**

#### *SmartLiving Center, Orange, Conn.*

An energy education learning center, open since 2001, serving all ages

### **2. Museum Partnerships**

Developing energy education exhibits through strategic partnerships with museums

#### *Connecticut Science Center, Hartford, Conn.*

Energy City Gallery opened in June 2009 serving ages 10 to adult

#### *The Discovery Museum, Bridgeport, Conn.*

Permanent energy gallery, open since fall 2009, serving children ages 6-13

#### *Stepping Stones Museum for Children, Norwalk, Conn.*

Permanent energy gallery opening in December 2010 serving children ages 3-10

### **3. Traveling Exhibits**

#### *Stepping Stones Museum for Children, Statewide*

Traveling energy exhibit touring nature centers, schools and municipalities available since fall 2009 serving children ages 3-10

#### *Semi-permanent Displays, Statewide*

Refurbished energy exhibits that can be installed on semi-permanent basis at nature centers, schools and municipalities serving children ages 3-10

**Target Market:** The target market for the SmartLiving Center and Museum Partnerships programs is: architects, builders, designers, schoolteachers, educators, students, homeowners, homebuyers, residential and business customers, trade allies and not for profit organizations.

**Program Description:** The Fund and Electric Companies have developed very successful partnership exhibits at museums and centers across Connecticut. In an effort to support existing partnerships, the programs' focus will be on supporting programming, events and workshops to be held at Fund-sponsored exhibits and centers. This focus will allow Program Administrators to advance the efficient use of energy by encouraging Connecticut residents, schoolchildren, teachers and businesses to visit the centers and museums.

*SmartLiving Center, Orange, Conn.*

*Energy Education Learning Center*

The SmartLiving Center is an interactive, professionally staffed facility that serves as a high-profile resource for promoting energy-efficient products, services and ideas to educate customers about energy efficiency. It is an educational facility featuring training sessions and seminars, special events and tours; all geared toward teaching customers that they can use energy wisely while keeping an eye on the environment and not sacrificing comfort or style.

*Displays*

The SmartLiving Center features hands-on displays and demonstrations of energy efficient appliances; lighting technologies, weatherization and new construction practices. The SmartLiving Center's knowledgeable staff provides technical assistance and advice related to energy efficiency and conservation.

The SmartLiving Center exists as a resource to cross-promote a variety of Fund programs, efforts of the CCEF, water and natural gas efficiency activities. It also complements the local retail marketplace and includes those retailers in promotions and displays at the Center.

## *Seminars*

The SmartLiving Center offers educational seminars to adults after work and on weekends with topics regarding residential and commercial energy efficiency and renewable energy. Presenters discuss concepts, technology and installation practices of a particular energy topic and attendees are encouraged to share specific home improvement questions and concerns.

### *Meeting Space*

The SmartLiving Center is available at no cost to contractors, nonprofits, civic organizations and groups for meeting space. The SmartLiving Center will open early or remain open after hours and on weekends to accommodate the needs of the organization. The meeting space can accommodate up to 40 adults in either a lecture or table/chairs set-up.

### *Educational Tours*

Working in conjunction with the **eesmarts** program, the SmartLiving Center offers educational tours to promote energy efficiency measures to students in elementary, middle, high and technical schools as well as college and university students. Educational tours are available to all age groups including Kindergarten to adult, schools, classes and after-school groups (i.e., boy scouts, girl scouts, civic organizations, etc). Themes for the tours include the origins of energy, energy efficiency, energy conservation and alternate sources of energy. The tours make use of the SmartLiving Center's interactive displays as well as lecture and question and answer sessions.

### *Events*

The SmartLiving Center hosts up to three events per year including Earth Day (April), Family Science Day (October) and a floating summer event. The events are opportunities for adults and children to learn about energy-saving activities and home improvement opportunities in an effort to protect the environment while incorporating fun for the whole family.

## **Museum Partnerships**

### *Connecticut Science Center, Hartford, Conn.*

#### *Energy City Gallery*

In June 2005, the Fund and the CCEF entered into a \$2 million partnership with the Connecticut Science Center to fund the Energy City Gallery – a model sustainable city that showcases exhibits on energy-efficient and clean, renewable energy technologies.

The Energy City Gallery contains a Climate Change Theatre, an interactive 20-minute presentation on climate change and its relationship to the way humans use energy. Exiting the theatre, visitors can make their way through the model sustainable city – Greenslope – where they can observe and interact with technologies and learn about behaviors that can mitigate their negative environmental impacts.

Greenslope is laid out as a typical metropolis with residential dwellings, school, office space, manufacturing facility and a town hall. Greenslope residents and businesses have learned to live sustainably – meeting their current needs without sacrificing the ability to meet the needs of future generations. Inefficient technologies have been replaced with compact fluorescent light bulbs, ENERGY STAR refrigerators, windows and occupancy sensors. Buildings still use electricity to power computers, machines and lights; however, their electricity comes from photovoltaic panels, wind turbines and biomass facilities instead of polluting fossil fuels.

The Energy City Gallery features exhibits on sustainability, energy-efficient windows, passive solar design, residential solar PV installations, energy-efficient appliances/lights, wind power, biomass, hydropower, fuel cells, and real-time energy monitoring systems, day lighting and occupancy sensors and LED traffic lights.

Approximately 400,000 schoolchildren and visitors are anticipated to visit the Connecticut Science Center annually. In 2009, two eesmarts workshops/tours were held at the

Connecticut Science Center to provide educational training for eesmarts teachers and students. Since 2009 and continuing through 2010 and 2011, the Fund will offer Connecticut Science Center season passes to eesmarts teachers upon completion of a workshop.

*Stepping Stones Museum for Children, Norwalk, Conn.*  
*Permanent Energy Gallery*

In January 2009, the EEB approved funding for a permanent energy gallery at Stepping Stones Museum for Children (“Stepping Stones”) that will open in November 2010. The 1,300 square foot energy gallery is an immersive, solar, wind and water environment that sets the stage for children to learn about the science of energy – sources, uses, and emerging alternatives.

Exhibits include:

- An energy wall focusing on potential/kinetic energy, energy transformations and renewable/nonrenewable energy sources.
- A water lab allowing visitors to explore the water cycle and learn about hydropower.
- A giant wind tunnel offering children a chance to feel the force of wind, manipulate wind turbine blades to find the most efficient configurations and invent new designs.
- A solar lab showing how energy from the sun grows plants, heats homes and powers cars.
- A nonrenewable lab will allow visitors to crawl below the surface of the earth to see where fossil fuels come from.

As part of the Fund’s sponsorship of the Permanent Energy Gallery, Stepping Stones will utilize eesmarts lessons in conjunction with educational outreach, workshops and conservation nights.

Started in 2010 and continuing into 2011, the Fund will offer Stepping Stones season passes to *eesmarts* teachers upon completion of a workshop.

*Stepping Stones Museum for Children, Statewide  
Mini-Exhibit and Tour*

In January 2009, the EEB approved funding for an energy mini-exhibit to be recreated from Stepping Stones' popular *Conservation Quest* that debuted at Governor M. Jodi Rell's One Thing Expo in 2008. Stepping Stones developed a smaller, more portable tour to travel to schools throughout the state, setting the stage for school children to learn about energy conservation through direct, hands-on experiences.

In 2010, Stepping Stones educators traveled statewide to schools to introduce the content, lead initial programs and then let various grade levels enjoy the exhibits at their own pace. The mini-exhibit and tour reinforce the energy efficiency and clean energy components that align with the Fund's mission. The mini-exhibit traveled to approximately 40 schools and community centers in 2010, reaching more than 100,000 Connecticut residents. The mini-exhibit has had bookings more than a year in advance, and 2011 is scheduled to be another successful year.

*The Discovery Museum, Bridgeport, Conn.  
Energy Gallery*

The DPUC and the EEB approved the 2009 C&LM Plan to develop an Energy Gallery at The Discovery Museum that would incorporate hands-on, interactive, permanent exhibits to promote energy efficiency and renewable technologies and cross-promote the SmartLiving Center and *eesmarts* while recognizing the mission of the Fund.

The exhibit highlights four main sources of energy: fossil fuels, wind power, hydropower and solar. Each energy source starts from a different point in the exhibit, connecting to a grid, a substation, a transformer and ultimately to the home. Inside the exhibit's home, visitors can choose between efficient and

inefficient appliances while watching the electric demand change on the house's meter.

Since 2010 and continuing in 2011, the Fund will offer Discovery Museum season passes to *eesmarts* teachers upon completion of a workshop.

### *Semi-permanent Displays, Statewide*

#### *Energy Exhibits*

In 2005, the Fund sponsored three permanent energy efficiency exhibits at the Stepping Stones Museum for Children in Norwalk. As the museum has undergone extensive renovations and has created a new permanent Energy Gallery that opened in 2010, there was no longer room for the 2005 exhibits. The museum gave the exhibits back to CL&P and the Fund in the Fall of 2009, and they have been refurbished/updated to address new technologies, i.e., LEDs.

The exhibits include a What's Your Wattage exhibit comparing lighting technologies, and Energy Stacker game comparing inefficient vs. ENERGY STAR technologies, a Connect the Circuit display and Energy House video display.

Marketing Strategy: Promotion of the Museum Partnerships program is primarily accomplished through advertising and public relations, generated by the individual museum. The SmartLiving Center employs promotions specific to its calendar of events. The Electric Companies may augment museum promotional efforts using a variety of public relations tactics that may include:

- Development of special events or workshops held to spotlight Fund exhibits, programs, energy efficiency trends and community collaborations. These events include Earth Day events, Family Science Days, home shows and eco-festivals.
- Cross-promotion of museum exhibits and SmartLiving Center events through other Fund programs and partnerships, such as *eesmarts* and *eeCommunities*.

- Articles and notices via electronic newsletters, CTEnergyInfo.com and Electric Companies' websites.
- Direct mail regarding eesmarts bus reimbursements to the SmartLiving Center and eesmarts season passes to the Connecticut Science Center, The Discovery Museum and Stepping Stones Museum for Children.
- Tie-ins with weatherization and conservation campaigns and special events.
- Weatherization and conservation campaigns.
- On-going seminars and meetings.

Goals: Refer to Standard Filing Requirements for program goals.

New Program Issues: Under the C&LM previous proceeding, the Department ordered the EEB and Companies to make a recommendation to the Department regarding the current SmartLiving Center and its future state. The EEB established a task force in January 2010 to research and propose recommendations regarding the future of the SLC.

On July 21, 2010, the EEB recommended three options to the Department with five votes for Option 1 (terminate lease and discontinue the SLC), six votes for Option 2 (renew lease in Orange and open a 2<sup>nd</sup> SLC in Greater Hartford) and two votes for Option 3 (terminate lease in Orange and open new SLCs in Greater Bridgeport and Greater Hartford).

On August 31, 2010, the DPUC submitted a letter to the Electric Companies stating that based on the June 9, 2010 EEB vote, it is clear that the Board is divided on this issue. Therefore, absent clear direction from the EEB, it would be inappropriate for the Department to rule on this significant issue or to extend the current lease for an additional five years without a more comprehensive review of the matter. This matter will be explored as part of the 2011 conservation and load management review. Based on the foregoing, the Department authorized UI to extend the current lease for up to two years. UI

is in negotiations with the property of 297 Boston Post Road, Orange to secure a two-year lease for the continued operation of the SmartLiving Center.

## CL&P Standard Filing Requirement

### SmartLiving Center Museum Partnerships

All dollar values are in \$000

<b>Budget Projections</b>	<b>2008 Actuals</b>	<b>2009 Actuals</b>	<b>Revised 2010 Budget</b>	<b>2010 YTD (Aug)</b>	<b>2010 YE Projected</b>	<b>2011 Budget</b>	<b>2012 Budget</b>
Labor:							
NU Labor	\$ 58	\$ 22	\$ 52	\$ 15	\$ 22	\$ 21 a)	\$ 21
Contractor Staff	\$ -	\$ 0	\$ -	\$ 1	\$ 1	\$ -	\$ -
Total Labor	\$ 58	\$ 22	\$ 52	\$ 16	\$ 23	\$ 21	\$ 21
Materials & Supplies	\$ 13	\$ 0	\$ 13	\$ 0	\$ 0	\$ 10 c)	\$ 7
Outside Services	\$ -	\$ 51	\$ 427	\$ 48	\$ 369	\$ 354 b)	\$ 260
Fees & Incentives	\$ -	\$ -	\$ 1	\$ -	\$ -	\$ - d)	\$ -
Marketing	\$ 24	\$ 20	\$ 20	\$ 19	\$ 29	\$ 15 e)	\$ 11
Administrative Expense	\$ 10	\$ 0	\$ 12	\$ 1	\$ 1	\$ -	\$ -
Other	\$ 2	\$ 0	\$ -	\$ 0	\$ 0	\$ -	\$ -
Total	\$ 107	\$ 92	\$ 525	\$ 83	\$ 422	\$ 400	\$ 300

a) Includes CL&P Administration of Science Center and stepping stones projects.

b) Creative support for museum projects. Includes Stepping Stones Museum exhibit payments and BioBus programming.

c) Includes printing/design costs for educational materials.

d) Includes sponsorships for museum/public facilities exhibits and workshops.

e) Includes direct mail/collateral and grassroots/PR.

#### 2011 Goals and Metrics Information

The SLC Museum Partnerships does not have any kW or kWh savings metrics

Demand Savings (kW reduction Goal)	N/A
Annual Energy Savings (KWh Reduction Goal)	N/A
Lifetime Energy Savings (kWh Reduction Goal)	N/A
Annual Cost Rate (\$/kWh)	N/A
Lifetime Cost Rate (\$/kWh)	N/A
Electric b/c Ratio	N/A
Total Resource b/c Ratio	N/A

Metrics  
None

## CL&P Standard Filing Requirement

### SmartLiving Center- Museum Partnerships

#### CL&P Program Notes

**Budget/FTE**

0.2 FTEs for program administration

**Goal**

Not applicable.

**Cost/Unit**

Not applicable.

**Goal Setting Methodology**

Not applicable.

**Metric Changes**

Establish a long-term presence at museums, schools and educational centers.

## CL&P Standard Filing Requirement

### Science Center

All dollar values are in \$000

<u>Budget Projections</u>	<u>2008 Actuals</u>	<u>2009 Actuals</u>	<u>Revised 2010 Budget</u>	<u>2010 YTD (Aug)</u>	<u>2010 YE Projected</u>	<u>2011 Budget</u>	<u>2012 Budget</u>
Labor:							
NU Labor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Contractor Staff	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ -	\$ -
Total Labor	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ -	\$ -
Materials & Supplies	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Outside Services	\$ 214	\$ 206	\$ -	\$ -	\$ -	\$ -	\$ -
Incentives	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Marketing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Administrative Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ 214	\$ 206 a)	\$ -	\$ -	\$ -	\$ -	\$ -

a) This represents an annual \$200k paid to the CTCSE over the five-year \$1M Contract time period (2005-2009) for an energy efficiency exhibit.

### 2011 Goals and Metrics Information

Demand Savings (kW reduction Goal)	N/A
Annual Energy Savings (KWh Reduction Goal)	N/A
Lifetime Energy Savings (KWh Reduction Goal)	N/A
Annual Cost Rate (\$/kWh)	N/A
Lifetime Cost Rate (\$/kWh)	N/A
Electric b/c Ratio	N/A
Total Resource b/c Ratio	N/A

**The United Illuminating Company**  
**EL-25 Standard Filing Requirement**  
**2011**

**SmartLiving Center®**

**Baseline Assumptions:**

Market

UI residential customers, appliance retailers, builders, developers, realtors

<b><u>Budget Projections</u></b>	<b><u>2009 Act</u></b>	<b>2010</b>	<b>2010</b>	<b>2010</b>	<b><u>2011 Bud</u></b>	<b><u>2012 Bud</u></b>
		<b><u>Revised Bud</u></b>	<b><u>YTD (Aug)</u></b>	<b><u>YE Projected</u></b>		
Labor						
UI Labor	\$ 43,347	\$ 58,293	\$ 38,624	\$ 58,293	\$ 61,916 a)	\$ 65,012
Contractor Staff	\$ 152,677	\$ 171,814	\$ 125,653	\$ 171,814	\$ 171,814 b)	\$ 171,814
Total Labor	\$ 196,024	\$ 230,107	\$ 164,277	\$ 230,107	\$ 233,730	\$ 236,826
Materials & Supplies	\$ (1,750)	\$ 14,728	\$ 13,776	\$ 14,728	\$ 10,000 c)	\$ 10,000
Outside Services	\$ 108,277	\$ 4,500	\$ 6,766	\$ 10,100	\$ 4,500 d)	\$ 4,500
Incentives	\$ -	\$ -	\$ -	\$ -	\$ - e)	\$ -
Marketing	\$ 27,040	\$ 50,000	\$ 44,641	\$ 50,000	\$ 35,000 f)	\$ 35,000
Other	\$ 145,245	\$ 154,911	\$ 120,487	\$ 152,645	\$ 174,016 g)	\$ 170,920
Administrative Expenses	\$ 1,150	\$ 5,000	\$ 2,271	\$ 5,000	\$ 2,000 h)	\$ 2,000
Total	\$ 475,986	\$ 459,246	\$ 352,218	\$ 462,580	\$ 459,246	\$ 459,246

a) .58 FTE

b) Day-to-day contract staffing of Center

c) Tours and seminar supplies, office supplies

d) Display Maintenance and updates

e) No comment

f) Marketing of specific events (Earth, Conservation and Family Science Days) Seminars and General Awareness

g) Stepping Stone Museum mobile display, Rent, utilities, trade services (HVAC, phone, internet, dumpster etc.)

h) Meals, miles, travel and training

**Goals and Metrics Information:**

# of Visitors

**2011**  
15,000

**The United Illuminating Company  
LF-26 Standard Filing Requirement**

**SmartLiving Center®**

**Goal - Program Costs (000's)**

<b>Year</b>	<b>Budget</b>	<b>Actual</b>	<b>% of Goal Achieved</b>
2000	\$300	\$307	102.3%
2001	\$524	\$836	159.5%
2002	\$423	\$392	92.7%
2003	\$531	\$345	65.0%
2004	\$478	\$370	77.4%
2005	\$428	\$410	95.8%
2006	\$286	\$294	102.8%
2007	\$335	\$353	105.4%
2008	\$334	\$347	103.9%
2009	\$534	\$476	89.1%
2010	\$459		
2010 YTD (Aug)	\$459	\$352	76.7%
2010 YE Projected	\$459	\$463	100.8%
2011	\$459		

**Goal - Number of Customers Served**

<b>Year</b>	<b>Goal</b>	<b>Actual</b>	<b>% of Goal Achieved</b>
2000	-	-	0.0%
2001	-	-	0.0%
2002	5,000	7,977	159.5%
2003	11,340	6,221	54.9%
2004	8,500	7,565	89.0%
2005	10,000	11,141	111.4%
2006	10,000	10,392	103.9%
2007	10,000	12,523	125.2%
2008	10,000	12,940	129.4%
2009	15,379	12,944	84.2%
2010	15,000		
2010 YTD (Aug)	15,000	9,353	62.4%
2010 YE Projected	15,000	14,030	93.5%
2011	15,000		

**The United Illuminating Company  
LF-26 Standard Filing Requirement**

**Program Notes - SmartLiving Center**

Budget/FTE:

.58 FTE for contract administration, financial administration and strategic oversight

Goal:

15,000 customer goal

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## eesmarts™ (Electric)

**Objective:** The *eesmarts* program is a joint energy education program of the Fund and the Electric Companies. The purpose of the program is to develop an energy-efficient ethic among all school age students in Connecticut, encouraging them to incorporate energy-efficient practices and behaviors to their lives at home and at school.

For 2011, the *eesmarts* program has four primary objectives:

*Objective 1:* *eesmarts* will continue to emphasize and promote professional development workshops. Educator training will focus on science concepts related to energy, as well as applications of *eesmarts*, energy conservation habits and energy-efficient technologies.

*Objective 2:* *eesmarts* program material distribution will continue to be limited to decision makers within the school district: administrators, curriculum directors, and educators who have participated in *eesmarts* professional development workshops.

*Objective 3:* Program lesson material will continue to be fully aligned with the Connecticut State Department of Education science and mathematics frameworks and inquiry-based teaching methods.

*Objective 4:* *eesmarts* will implement a concerted effort to reach out directly to schoolchildren through the eeEvents initiative, including in-classroom activities, book readings, Earth Day presentations, and various other school assemblies

**Target Market:** For 2011, the *eesmarts* program will continue to target its efforts to educating K-12 Connecticut classroom educators and schoolchildren about the importance of energy-efficient behaviors.

The Electric Companies will continue to target all K-12 public, private, magnet, and charter school districts and classroom educators statewide. The Companies will also continue and

expand their partnership with Connecticut's Technical High School system, now in its fifth consecutive year.

Program Description: *eesmarts* is an energy-efficiency and clean-energy learning initiative. The *eesmarts* mission and program offerings are distributed statewide in the form of:

- Professional Development Workshops for Educators;
- teachers guides and lesson materials; and
- outreach and partnerships.

### **Professional Development Workshops for Educators**

*eesmarts* offers two types of educator training opportunities: custom workshops for school districts in Professional Development (PD) workshops and general training for individual educators in Continuing Education Unit (CEU) workshops.

PD Workshops are offered to school districts and educational organizations. They are specifically tailored to align with city/town/district curriculum plans, and are designed to improve an educator's understanding of science and how to incorporate *eesmarts*' lessons and activities into the city/town/district's curriculum framework and the Connecticut State Department of Education Framework.

CEU Workshops are offered to individual educators but are not specifically tailored to each individual educator's city/town/district's curriculum plans. These workshops are designed to improve an educator's understanding of science and how to teach it in the classroom. Lessons and hands-on activities are demonstrated that support the Connecticut State Department of Education Framework. As a result of CEU workshops being held after-hours and during the summertime, *eesmarts* administrators have implemented a stipend to educators to compensate them for their time and travel to these workshops.

In 2010, *eesmarts* provided professional development workshops for West Hartford, Hartford, UCONN Pre-service teachers, St. Joseph College's O'Keefe Bruyette Early Childhood Educators Symposium, Westbrook, and Greater Stratford.

In July 2007, the *eesmarts* program initiated a pilot Summer Institute for 31 grade 3-5 teachers at Wesleyan University. In subsequent years, the Summer Institute has grown to include three weeks of instruction in basic, advanced and topical workshops covering topics related to energy, energy efficiency, conservation and clean/renewable resources.

In 2010, *eesmarts* offered the Summer Institute in three locations to better serve educators statewide and to celebrate the Museum Partnerships program. The 2010 Summer Institute was offered at The Discovery Museum in Bridgeport, Stepping Stones Museum for Children in Norwalk, and Wesleyan University in Middletown. The *eesmarts* team also partnered with the Clean Energy Fund at the 2010 Summer Institute to engage the upper middle- and high school-level teachers in more advanced clean, renewable energy-source topical-workshop instruction. Increasing in popularity each year, the 2010 workshops welcomed a total of 139 teachers. Throughout the past three years, the *eesmarts* Summer Institute has trained more than 380 educators in grades pre-K through 9.

At the culmination of an *eesmarts* workshop, educators must submit an information contract, known as a Curriculum Request Agreement ("CRA"). The CRA must be signed by the participating educator and a school administrator (e.g., principal, assistant principal, or district curriculum director). By signing the CRA, the educator agrees to utilize the *eesmarts* program materials, administer student assessments and return their teacher evaluation. All educators must submit a signed CRA to obtain lesson materials.

## Teachers Guides and Lesson Materials

The *eesmarts* program materials consist of two major elements: Teacher Guides and Lessons.

The *eesmarts* Teacher Guides are grouped according to grade level: Grades Pre-K – 2, Grades 3 -5 and Levels I, II & III for middle and high school educators. The Teacher Guides provide educators with detailed lessons, experiments, background information on energy, energy efficiency and clean renewable energy sources and alignment with the Connecticut State Science and Mathematics frameworks.

In 2008, a third-party evaluation of the *eesmarts* program concluded that the *eesmarts* Program Administrators had made the recommended changes of a 2005 third-party evaluation, including the alignment of all *eesmarts* lessons with the Connecticut State Science Framework Content Standards and Grade Level Expectations.

In 2009, updated *eesmarts* curriculum materials for Grades 2-3 were developed, and in January 2010 were distributed to Connecticut's classrooms, complete with changes in content and design formats and updates of the comprehensive teacher guidebooks with new lessons and information. *eesmarts* program administrators worked with steering committee members from the Connecticut Department of Education, the Electric Companies, the Connecticut Clean Energy Fund, and the Institute for Sustainable Energy, as well as grades 2-3 pilot educators to ensure that the updates and changes were consistent with the state's educational inquiry and science and mathematics standards.

## Outreach & Partnerships

The *eesmarts* program has developed select partnerships to engage in outreach to educators, schools, community organizations and students to further the mission of the program. Below is a list of partners and initiatives the *eesmarts* program has established and will continue to cultivate and offer in 2011.

eeEvents: The objective of *eesmarts* is to educate educators, but throughout the years, *eesmarts* program administrators have received an increasing number of requests to visit schools, assemblies and classrooms throughout the state to conduct in-classroom interactive and inquiry-based activities directly with students. In 2010, as a result of the eeEvents initiative being piloted statewide, *eesmarts* program administrators and partners have visited elementary and middle school classrooms, school assemblies, environmental club meetings, Boy/Girl Scout meetings and Earth Day events. Team members provide presentations about energy efficiency and hands-on activities for students or tailor an event to the needs of the school in order to engage and educate the community in energy efficiency, conservation and clean, renewable energy programs, practices and technologies. All visits are conducted in accordance with the needs of the students, teacher, class size and grade levels. In 2011, the *eesmarts* program will again offer the eeEvents initiative to schools throughout the state.

*eesmarts* Student Contest: The Energy Efficiency Fund sponsors an annual *eesmarts* energy-efficiency contest that invites students to enhance their skills in science, writing and technology. Students are asked to answer grade-level-specific prompts regarding efficient and renewable technologies in a variety of formats including a poster project, an essay project and a community services project. The lower elementary grades (K – 3) compete by submitting drawings, illustrations and a narrative about how to save energy in their school or community. The upper elementary and middle school level (Grades 4 – 8) submit essays in response to grade-specific prompts about energy, energy efficiency and clean, renewable energy sources in students' homes, schools and communities. High-school level (Grades 9 – 12) students submit formal plans, procedures and expected results and outcomes for community service projects relating to energy, energy efficiency, conservation and clean renewable energy as it relates to their home, school or community. The *eesmarts* program provides technical and financial assistance for the implementation of high-school -level community service projects. The contest is open

to all students in Connecticut, and all project and essay prompts align with the Connecticut State Frameworks in science, mathematics and writing. All participants receive recognition for their submissions, and winners are honored at a special awards ceremony at the Legislative Office Building at the state capitol.

Connecticut Science Fair: Since 2008, *eesmarts* has been a sponsor of the Sustainable Resources and Practices category at the Connecticut Science Fair. The science fair and this category, in particular, allow middle school students and educators to reflect on the major scientific principles and public policies that revolve around energy efficiency and clean, renewable energy, such as climate change and the depletion of fossil fuels.

The winner of the 2010 Energy Efficiency Fund/*eesmarts* Connecticut Science Fair category was given the opportunity to travel to Houston, Texas for the 2010 International Sustainable World (Energy, Engineering & Environment) (ISWEEEP) Project Olympiad. This talented student not only walked away with top prize in the Sustainable Resources & Practices category two years in a row, but she also attended the ISWEEEP competition and earned Olympiad's grand prize for the second year straight. In 2011, the *eesmarts* program will sponsor both the Sustainable Resources & Practices (middle school) category as well as the Future Sustainability (high school) category at the Connecticut Science Fair.

Girl Scouts of Connecticut: In 2010, the *eesmarts* program established a partnership with the Girl Scouts of Connecticut to co-host Energy Forums for Girl Scouts statewide – an effort aligned with the Girl Scout's Forever Green initiative. The *eesmarts* program and Girl Scouts of Connecticut will host a total of nine Forever Green Energy Forums to teach Girl Scout troops and members of their communities about energy efficiency, conservation and clean renewable energy sources. Prior to the Energy Forum, *eesmarts* personnel will train six to twelve Girl Scout Energy Specialists in activities surrounding the aforementioned topics, and these specialists will host roundtable activities and discussions at an Energy Forum to

take place in a subsequent week. In this manner, the older Scouts have an opportunity to pass their knowledge on to younger Girl Scout visitors. Energy Specialist training and Energy Forums are scheduled throughout the 2010-2011 school year in all regions of the state.

Connecticut Technical High School System: *eesmarts* and the Clean Energy Fund's Learning for Clean Energy Innovation ("LCEI") program have partnered on a variety of initiatives with the Connecticut Technical High School System ("CTHSS"). Since 2006, *eesmarts* has provided professional development workshops for CTHSS electrician and science teachers and an on-site recognition ceremony for CTHSS electrical teachers. Starting in 2008, *eesmarts* and LCEI started partnering to conduct joint professional development workshops for CTHSS educators.

In 2010, *eesmarts*, the Museum Partnerships program and LCEI again partnered with the CTHSS schools statewide to roll out the E-House initiative. An E-House is a 20- by 16-foot outdoor structure to be built, modified and maintained by and for students at six technical high schools statewide. In October 2009, the Clean Energy Fund sponsored a \$200K grant to the CTHSS toward the installation of solar thermal, solar photovoltaic and high-efficiency boilers within each of the six E-Houses. In addition to renewable technologies, the CTHSS approached *eesmarts* and Museum Partnerships to assist with funding for energy efficiency equipment, technical assistance and curriculum assistance to align with the technologies within the E-House. Throughout 2010 and 2011, E-Houses will be built at E.C. Goodwin Technical High School (New Britain), Oliver Wolcott (Torrington), Grasso/Southeastern Tech (Groton), Bullard-Havens (Bridgeport), Platt Technical High School (Milford) and Cheney Tech (Manchester). All CTHSS students will have access to the E-Houses on the six campuses.

CURE / Science Quest Bus: In 2010, *eesmarts* established a partnership with the Connecticut United for Research Excellence ("CURE") Science Quest educational mobile laboratory. The Energy Efficiency Fund *eesmarts* chose to fund

the development of energy and environmental stewardship curricula. The Science Quest mobile lab will target students in Grades 3-5 in the state's designated priority school districts: Ansonia, Bridgeport, Bristol, Danbury, East Hartford, Hartford, Meriden, New Britain, New Haven, New London, Norwalk, Norwich, Stamford, Waterbury and Windham. CURE developed a comprehensive 6-8 week curriculum around the mobile lab visit, and requested that *eesmarts* provide Science Exploration Cards – an activity for students and parents to complete at home and discuss results of in the classroom with other students. The *eesmarts* program created two Science Exploration Cards on “Electricity in Your Home” and “Your Outside Electricity Environment.” These multi-page interactive cards, which are bilingual in English and Spanish, will not only be used with the Science Quest mobile lab, but also in *eesmarts* eeEvents educator professional development, and will be offered to *eesmarts*-trained educators statewide for use in the classroom.

Museum Partnerships: In 2011, the *eesmarts* program will continue to offer educational tours at the SmartLiving™ Center in Orange.

In 2010, the opening of the Energy Exhibit at The Discovery Museum in Bridgeport and the Energy Lab exhibit at Stepping Stones Museum for Children served as a new opportunity for teachers and students to learn about clean and efficient energy topics through the *eesmarts* program. In 2010 and continuing into 2011, the *eesmarts* program will enable museum education specialists with *eesmarts* professional development workshops to fully integrate the lesson materials into the daily programming at the Connecticut Science Center in Hartford, the Discovery Museum in Bridgeport and Stepping Stones Museum for Children in Norwalk.

All *eesmarts*-trained educators are offered a season pass to drive visitors to the exhibits, funded by the Energy Efficiency Fund at Stepping Stones Museum for Children, The Discovery Museum and the Connecticut Science Center.

Marketing Strategy: The Electric Companies plan to market this program to consumers and businesses through area museums, science centers, schools, and other public venues, to help educate them on the value and importance of energy efficiency. In this effort, the Companies will recruit schools and educators using strategies that may include:

- outreach to new and participating educators via utility Program Administrators and workshop vendors (as appropriate);
- updating of the *eesmarts* web site with an educators only access database, news features, links to more hands-on activities and lessons regarding energy, and links to events at the Fund's museum exhibits and centers;
- outreach to nonparticipating schools through teaser workshops, assemblies and activities for students;
- attendance at education conferences;
- joint partnership at SmartLiving Center & Museum Partnership Events, Fund community events, Earth Day celebrations and book readings;
- promotion of the Spring 2011 student contest and the Connecticut Science Fair;
- *eesmarts* public relations opportunities, and
- promotion of the fully aligned *eesmarts* lesson materials with Connecticut Science and Mathematics curriculum frameworks.

Goals: Refer to Standard Filing Requirements for program goals.

## CL&P Standard Filing Requirement

### K-8 Education

All dollar values are in \$000

<u>Budget Projections</u>	2008 <u>Actuals</u>	2009 <u>Actuals</u>	Revised 2010 Budget	2010 YTD (Aug)	2010 YE Projected	2011 Budget	2012 Budget
Labor:							
NU Labor	\$ 17	\$ 29	\$ 45	\$ 15	\$ 22	\$ 85	\$ 85
Contractor Staff	\$ -	\$ 1	\$ -	\$ 3	\$ 5	\$ -	\$ -
Total Labor	\$ 17	\$ 30	\$ 45	\$ 18	\$ 27	\$ 85	\$ 85
Materials & Supplies	\$ -	\$ -	\$ 3	\$ 0	\$ 0	\$ 3	\$ 3
Outside Services	\$ 170	\$ 161	\$ 335	\$ 175	\$ 364	\$ 130 a)	\$ 106
Marketing	\$ 17	\$ 2	\$ 10	\$ 5	\$ 7	\$ 4 b)	\$ 4
Administrative Expense	\$ 4	\$ 4	\$ 7	\$ 1	\$ 2	\$ 3	\$ 3
Other	\$ -	\$ 0	\$ -	\$ 0	\$ 0	\$ -	\$ -
Total	\$ 208	\$ 197	\$ 400	\$ 199	\$ 400	\$ 225	\$ 200

a) Educational Consultant: PIMMS (Wesleyan University). Conduct teacher training workshops and promote curriculum.  
Curriculum Vendor: Atlantic Coast Fulfillment. Fulfillment of curriculum requests.

b) Includes bill inserts, mailings to curriculum directors and principal/pilot programs.

### 2011 Goals and Metrics Information

The K-8 Program does not have a kW or kWh savings metric.

Demand Savings (kW Reduction Goal)	N/A
Annual Energy Savings (kWh Reduction Goal)	N/A
Lifetime Energy Savings (kWh Reduction Goal)	N/A
Annual Cost Rate (\$/kWh)	N/A
Lifetime Cost Rate (\$/kWh)	N/A
Electric b/c Ratio	N/A
Total Resource b/c Ratio	N/A

### **Goal 1: Number of Workshops**

20 Workshops (joint utility workshops) .

### **Energy Education Events**

15 Events (joint utility workshops) .

Events with school children, i.e., book readings, eesmarts contests and service projects, green job training with CT Technical High School system.

## CL&P Standard Filing Requirement

### K-8 Education

Year	<u>Goal - # Curriculae Delivered</u>		
	Goal	Actual	% Achieved
2001	n/a	n/a	n/a
2002	n/a	314	n/a
2003	n/a	n/a	n/a
2004	1400	2,058	147%
2005 Revised	800	1,282	160%
2006 Revised	600	561	94%
2007 Revised	600	1,311	n/a
2008 Revised	n/a	n/a	n/a
2009 Revised	n/a	197	n/a
2010 Revised	400	n/a	n/a
2010 YTD (Aug)	n/a	199	50%
2010 Y/E Projected	n/a	400	100%
2011	225	n/a	n/a

Year	<u>Goal - Participation</u>		
	Goal	Actual	% of Goal
2001	n/a	n/a	n/a
2002	n/a	n/a	n/a
2003	n/a	n/a	n/a
2004	n/a	n/a	n/a
2005 Revised	n/a	n/a	n/a
2006 Revised	n/a	n/a	n/a
2007 Revised	n/a	n/a	n/a
2008 Revised	n/a	n/a	n/a
2009 Revised	n/a	n/a	n/a
2010 Revised	n/a	n/a	n/a
2010 YTD (Aug)	n/a	n/a	n/a
2010 Y/E Projected	n/a	n/a	n/a
2011	n/a	n/a	n/a

Year	<u>Goal - Budget</u>		
	Budget	Actual	% of Goal
2001	\$ 200,000	\$ 159,000	80%
2002	\$ 270,000	\$ 215,000	80%
2003	\$ 300,000	\$ 249,000	83%
2004	\$ 210,000	\$ 62,000	30%
2005 Revised	\$ 254,944	\$ 233,000	91%
2006 Revised	\$ 202,500	\$ 159,987	79%
2007 Revised	\$ 200,000	\$ 233,000	117%
2008 Revised	\$ 201,000	\$ 208,000	103%
2009 Revised	\$ 201,000	\$ 197,076	98%
2010 Revised	\$ 400,000	n/a	n/a
2010 YTD (Aug)	n/a	\$ 198,556	50%
2010 Y/E Projected	n/a	\$ 399,793	100%
2011	\$ 225,120	n/a	n/a

Year	<u>Program Ratios</u>				
	<u>\$/Lifetime kWh</u>		<u>\$/Annualized kW</u>		
	Plan	Actual	Plan	Actual	
2001	n/a	n/a	n/a	n/a	
2002	n/a	n/a	n/a	n/a	
2003	n/a	n/a	n/a	n/a	
2004	n/a	n/a	n/a	n/a	
2005 Revised	n/a	n/a	n/a	n/a	
2006 Revised	n/a	n/a	n/a	n/a	
2007 Revised	n/a	n/a	n/a	n/a	
2008 Revised	n/a	n/a	n/a	n/a	
2009 Revised	n/a	n/a	n/a	n/a	
2010 Revised	n/a	n/a	n/a	n/a	
2010 YTD (Aug)	n/a	n/a	n/a	n/a	
2010 Y/E Projected	n/a	n/a	n/a	n/a	
2011	n/a	n/a	n/a	n/a	

## CL&P Standard Filing Requirement

### K-8 Education

#### CL&P Program Notes

Budget/FTE

0.6

FTE for program administration

Goal

Conduct 15 Professional Development workshops for teachers.  
Conduct 10 Energy Education Events.

Cost/Unit

Not applicable.

**The United Illuminating Company**  
**EL-25 Standard Filing Requirement**  
**2011**

**K-8 Education**

**Baseline Assumptions:**

Market

Primary and secondary schools throughout UI service territory

<b><u>Budget Projections</u></b>	<b>2010</b>		<b>2010</b>		<b><u>2011 Bud</u></b>	<b><u>2012 Bud</u></b>
	<b><u>2009 Act</u></b>	<b><u>Revised Bud</u></b>	<b><u>YTD (Aug)</u></b>	<b><u>YE Projected</u></b>		
Labor						
UI Labor	\$ 43,347	\$ 58,293	\$ 38,625	\$ 58,293	\$ 61,916 a)	\$ 65,012
Contractor Staff	\$ 30,000	\$ -	\$ -	\$ -	\$ - b)	\$ -
Total Labor	\$ 73,347	\$ 58,293	\$ 38,625	\$ 58,293	\$ 61,916	\$ 65,012
Materials & Supplies	\$ 1,459	\$ 12,000	\$ 242	\$ 12,000	\$ 12,000 c)	\$ 12,000
Outside Services	\$ 203,358	\$ 197,698	\$ 138,691	\$ 197,698	\$ 197,698 d)	\$ 197,698
Incentives	\$ 26,638	\$ 75,000	\$ 21,640	\$ 75,000	\$ 75,000 e)	\$ 75,000
Marketing	\$ 1,208	\$ 47,411	\$ 23,397	\$ 47,411	\$ 47,411 f)	\$ 44,315
Other	\$ 1,111	\$ 34,000	\$ 1,124	\$ 34,000	\$ - g)	\$ -
Administrative Expenses	\$ 4,108	\$ 7,800	\$ 1,054	\$ 7,800	\$ 7,800 h)	\$ 7,800
Total	\$ 311,229	\$ 432,202	\$ 224,773	\$ 432,202	\$ 401,825	\$ 401,825

- a) .58 FTE
- b) No comment
- c) Supplies for on-site and professional development activities
- d) Warehousing, shipping, professional development services, Curriculum development, Summer Institute Workshops (Joint UI and CL&P)
- e) SmartLiving Center tours, eesmarts bus and museum partnership reimbursements
- f) Promotional supplies, targeted marketing of program
- g) No comment
- h) Meals, miles, travel and training

**Goals and Metrics Information:**

	<b><u>2011</u></b>
Curriculum Units Under Request Agreements	2,000
General/Custom Workshop	20
Educational Outreach Events - Essay Contest, Technical School Outreach, School Assemblies, etc	15

**The United Illuminating Company  
LF-26 Standard Filing Requirement**

**K - 8 Education**

**Goal - Program Costs (000's)**

<b>Year</b>	<b>Budget</b>	<b>Actual</b>	<b>% of Goal Achieved</b>
2000	\$363	\$392	108.0%
2001	\$427	\$298	69.8%
2002	\$377	\$855	226.8%
2003	\$427	\$266	62.3%
2004	\$319	\$223	69.9%
2005	\$416	\$324	77.9%
2006	\$302	\$309	102.3%
2007	\$281	\$296	105.3%
2008	\$282	\$311	110.3%
2009	\$432	\$311	72.0%
2010	\$432		
2010 YTD (Aug)	\$432	\$225	52.0%
2010 YE Projected	\$432	\$432	100.0%
2011	\$402		

**Goal - Number of Curriculum Delivered**

<b>Year</b>	<b>Goal</b>	<b>Actual</b>	<b>% of Goal Achieved</b>
2000	-	-	0.0%
2001	-	-	0.0%
2002	38	619	1628.9%
2003	38	696	0.0%
2004	600	830	138.3%
2005	600	974	162.3%
2006*	300	367	122.3%
2007	340	747	219.7%
2008	340	1,574	462.9%
2009	1,074	3,965	369.2%
2010	950		
2010 YTD (Aug)	950	1182	124.4%
2010 YE Projected	950	1773	186.6%
2011	2,000		

\*Curriculum with sign Curriculum Request Agreement (CRA)

## **The United Illuminating Company LF-26 Standard Filing Requirement**

### **Program Notes - K - 8 Education**

**Budget/FTE:**

.58 FTE for contract administration, direct contact with education community, oversight of curriculum and implementation strategy and professional development redesigns.

**Goal:**

Redefined goals reflected in curriculum alignment with CT Department of Education Frameworks

**Metric Changes:**

Focus on Professional Workshops and teacher development

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## CHAPTER FIVE: FINANCING, LOAD MANAGEMENT, RD&D

### Conservation & Load Management Financing Overview

The objective of the Electric and Natural Gas Companies' C&LM Financing programs is to provide attractive financing alternatives to the balance of customer costs not covered by the Fund incentive. These options range from referrals to third-party lenders to low interest third-party loans to interest-free on-bill financing funded by the Electric Companies (Small Business Energy Advantage ["SBEA"] and Municipal Loan programs) so that customers may easily implement cost-effective energy-efficiency projects.

The Electric Companies' zero percent, on-bill financing for the SBEA program has been extremely successful and is recognized as a strong business model by other utilities. We expect continued strong customer participation in the SBEA program due to this financing option. The SBEA financing model is very simple, easy to explain to customers and is sold directly to the customers directly through the SBEA contractors. Additionally, the default rates have remained low (less than 1percent) given the current economic environment. In addition, this current financing model has been adopted for Municipalities and is instrumental for facilitating project implementation, especially when funding is scarce.

In 2009, the Electric and Natural Gas Companies implemented several variations of third-party financing to make customer implementation even easier. On the commercial side, the Companies restructured the small C&I third-party financing program to reduce the minimum loan amount from \$5,000 to \$2,000. The maximum loan amount for a subsidized loan is \$100,000. However, Univest Capital, the vendor, has the capability of offering unsubsidized loans for amounts greater than \$100,000 up to \$250,000. There was limited customer acceptance of these loans, since all variations required sacrificing a portion of the project incentive to obtain the lowest possible rates. In 2010, the EDCs modified the loan offering to where the subsidized loan rate was approximately 7 percent. This higher rate was established because the loan gave the customer access to the full project incentive in addition to the possibility of achieving positive cash flow. A 2.99 percent loan package was also developed for qualifying projects that replaced T12 or High Intensity Discharge (HID) lighting systems. This has resulted in increased program activity. All of the loan packages have strived to offer positive cash flows to the customer.

The Electric and Natural Gas Companies have also developed enhanced pilot financing options for residential customers. A 2.99 percent financing option is offered for

qualifying residential energy efficiency projects costing from \$2,000 to \$6,999. A zero percent financing option is offered for qualifying residential energy efficiency projects costing from \$7,000 to \$20,000. These are unsecured third-party loans offered through AFC First Financial Corporation (“AFC”) and both of these options were rolled out to the HES and AFC contractors in May, 2010. The current source of capital to AFC for these residential loans is Fannie Mae which currently has high interest rates (14.99 percent) and buy-down costs to the Energy Efficiency Fund. The Companies are working internally as well as AFC and the EEB consultants to find alternative sources of capital at rates lower than Fannie Mae. In 2011, the Companies and the EEB will monitor and adjust the customer buy-down rates based on the costs of the sources of capital in order to serve more customers and provide financing solutions while maximizing rate payer dollars.

The Electric and Natural Gas Companies can now offer their entire customer base a broader portfolio of loan options that consists of Fund program offerings and other established loan offerings. These programs are summarized below:

*Loans for the Residential Sector:*

1. The Limited Income Financing Program offers subsidized loans through the Connecticut Housing Investment Fund (“CHIF”). The CHIF loans are provided directly to limited-income customers and the Electric Companies provide the interest subsidy to CHIF on the outstanding loan balances.
2. Home Energy Solutions offers unsecured loans through a third-party financing entity. Terms of these loans are between AFC First Financial Corporation and the customers, the role of the Fund being to provide subsidies to lower the market rates.

*Loans for the Commercial and Industrial Sectors:*

3. The Small Business Energy Advantage & Municipal Program offers:
  - a.) zero percent, on-bill loan repayment to small businesses that participate in the Electric Companies’ SBEA program.
  - b.) zero percent, on-bill loan repayment to municipal customers who participate in either the SBEA program or the Energy Opportunities program.
4. The Small Commercial & Industrial Loan Program offers:
  - a.) reduced interest-rate loans through a third-party financing entity.

- b.) customer loans ranging from \$2,000 to \$250,000 through a third-party lender, with the Electric and Natural Gas Companies providing various subsidized loan options on the first \$100,000 of the loan amount.
5. The DPUC C&I Loan Program offers low-interest DPUC-subsidized financing for energy efficiency projects costing more than \$1,000,000.
  6. The Hospital Loan Program -offers Connecticut Hospital Association Trust loans for participating eligible health care facilities. In 2011, CL&P is including CHA Administration expenses in its financing budget to allow this program to continue to provide its revolving loan fund.

### *Financial/Incentive Strategy Development*

In response to the suggestions and direction provided by the Department during recent years, the Electric and Natural Gas Companies have worked closely with the EEB's Residential and C&I Committees in systematically reviewing the C&LM program incentive and financing offerings and assessment of market-driven opportunities for leveraging Fund dollars and enhancing financial offerings under the current program structure. The Electric and Natural Gas Companies continue to work with the EEB and its committees to further develop the C&LM financing strategy by examining other innovations, initiatives, practices, tools and private and public resources. This process is ongoing and is expected to allow the C&LM programs to further develop and enhance the financing options listed in the previous section. These efforts include:

- ongoing meetings and consultations with the EEB's committees throughout the remainder of 2010 and 2011, recognizing that the revamped financial offerings noted above are just the next step in enhancing program options and cost-effectiveness;
- cooperation/coordination with the EEB and other parties to research innovative financial mechanisms, capital investment pools, public and private educational and technical resources, energy service performance contracting, positive cash-flow financial mechanisms, energy service agreements, etc.; and
- utilization of national and regional experts in innovative financing for energy-efficiency and load management.

It is anticipated that these ongoing efforts will allow the C&LM programs to further enhance the financial offerings noted above. The Companies and the EEB will periodically report to the Department on the progress of this effort and solicit its input.

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## **C&LM Financing - Small Business/Municipal Loan Program (Electric)**

- Objective:** The objective of the Electric Companies' C&LM Financing program is to provide attractive financing options to a broader base of the C&I sector that includes small businesses and municipalities, enabling those customers to implement cost-effective energy efficiency projects in conjunction with the existing incentive offerings.
- Target Market:** The primary target market consists of two distinct groups of commercial and industrial customers: small businesses and municipalities within the Electric Companies' service territories. The Companies have modified their definition of "small business" in order to increase service to smaller mid-size customers. The Companies define small businesses as those customer accounts that experience a 12-month average peak demand of up to 200 kW as the maximum criteria. Municipal customers are a well-defined group that includes all of the accounts paid for by municipal governments.
- Program Description:** Many obstacles must be addressed en route to educating these customers as to the benefits of energy efficiency. These obstacles include financial limitations, time constraints, decision-making policies, and a general lack of awareness of the benefits of energy-efficient measures. Offering a financing option such as this program to qualified customers mitigates some of these obstacles, allowing customers to participate and enhance their operations by reducing energy costs.
- This financing program is designed to supplement the existing incentive structures by offering interest-free financing to small businesses and municipalities, as ordered by the Department in its May 28, 2003 Decision in Docket No. 03-01-01. This mechanism enables the Electric Companies to offer financing to qualifying customers in an aggregate amount greater than would be possible if only Fund revenues were used as the source of funds.

The Electric Companies provide the funds to make loans to customers and charge the Fund only for certain costs related to the financing. First, the Fund is the source of interest payments, which are made to the Electric Companies on the aggregate principal amount of loans outstanding at an annual rate equal to each of the Companies' weighted cost of capital. For purposes of this program, the applicable interest rate for new loans is reviewed from time to time (at least once a year) and adjusted as appropriate. Second, unlike other financing programs that would terminate electric services for nonpayment of loans, the Fund is also used to fund a loan default reserve account to compensate for any defaulted and charged-off loans. The amount of such compensation is limited to the outstanding principal balance of the customer's loan.

The Electric Companies have received the Department's approval, under CGS §16-43(b), to lend monies to qualified customers on the terms and conditions described in the section headed "Incentive Strategy" below, including the provision of loans with repayment periods of one year or more.

**Marketing Strategy:** The C&LM Financing program is marketed to eligible small business and municipal customers through marketing channels that are currently used in other Fund programs. The primary marketing techniques involve direct customer contact.

**Incentive Strategy:** The Electric Companies offer a combination of incentives and interest-free financing that facilitate reduction of the customer's share of project costs. The interest-free finance payments are billed to customers as a line item on their electric bills.

The terms and conditions of the C&LM Financing program include the following:

- 1.) Maximum cumulative amount outstanding (between small businesses and municipality projects) is \$20 million over three years for CL&P projects and \$7.5 million over three years (beginning Sept. 2, 2009) for UI projects.
- 2.) Maximum term for loans is 36 months for proposed small business and municipal projects in CL&P's service territory

- and 48 months (beginning Sept. 2, 2009) for proposed small business and municipal projects in UI's service territory.
- 3.) The maximum dollar amount eligible for financing is \$100,000 per project for both CL&P and UI projects (beginning Sept. 2, 2009).
  - 4.) The minimum dollar amount eligible for financing is \$500 per project. If the amount is less than \$500, it defaults to a one-time receivable.
  - 5.) The Electric Companies are to be the source of the funding principal for the loan.
  - 6.) Interest is paid to the Electric Companies at the Department-approved weighted cost of capital from Fund monies.

**Goals:** The primary goal of this program is to provide small business-style financing to a broader base of C&I customers while achieving the same customer response as was achieved with the previous program offerings. For municipal customers specifically, the goal is to create general awareness and acceptance of this program. Controls are in place to ensure the amount of outstanding loans in any given year will not exceed the maximum cumulative outstanding balance as noted above nor exceed one-third of the Electric Companies' total Fund budget.

**New Program Issues:** Municipalities that participate in current C&LM retrofit programs are eligible for financing, provided they meet the qualifications. In response to the Department's request, the Electric Companies addressed the legal issues surrounding the financing proposal in briefs submitted to the Department on Oct. 1, 2003. The Electric Companies are seeking Department approval of the C&LM Financing program proposal under Conn. General Statute §16-43(b).

**Company Issues:** In addition to the municipal and small business sectors, the Electric Companies are extending financing to larger qualified C&I customers who participate in current C&LM retrofit programs in 2011. (The section on "New Program Issues" for Small C&I Energy Efficiency Financing program provides specifics.)

The EDCs and LDCs are investigating ways to expand the loan offering to include gas measures for Small Business and municipal customers. Additionally, the EDCs and LDCs will utilize third- party loan options for the SBEA customers who do not qualify for on-bill loans directly from the Companies.

**UI Specific Issues:**

For 2011, UI will be raising the eligibility criteria to include customers with an average 12-month peak demand up to 200 kW. This modification not only improves consistency between the program offerings throughout the State, but also offers our customers a means to implement additional energy efficiency measures. As in the past, customers not eligible for the SBEA program will be referred to EO.

## **C&LM Financing - Small C&I Energy Efficiency Financing Program (Electric)**

- Objective:** The objective of the Small C&I Energy Efficiency Financing program is to provide third-party financing for customers who would otherwise find it difficult to fund energy-efficient measures.
- Target Market:** Small commercial, manufacturing and industrial customers operating within the last three years and having an average demand greater than 10 kW and below 350 kW over the last 12 months are the target market groups.
- Program Description:** Existing small to mid-size industrial, manufacturing and commercial businesses operating within the Electric and Natural Gas Companies' combined service territories are eligible for this program. To qualify, an industrial/manufacturing customer (SIC Code 2000 through 3999) must have 100 or less employees (combined total for all locations in the Electric or Natural Gas Companies' territory) and have had an average monthly demand greater than 10 kW and below 350 kW over the past 12 months. Commercial customers (SIC Code 4000-9000) must have had an average monthly demand greater than 10 kW and below 350 kW over the last 12 months. Businesses must have been in existence for three years and qualify through a business credit review for either the low-interest or zero-interest loan.
- Qualified customer projects are eligible for interest-free third-party loans ranging from a minimum of \$2,000 to a maximum of \$100,000 for energy-efficient equipment replacements only. The Electric and Natural Gas Companies will continually evaluate these amounts based on program participation, customer need and cost effectiveness. Application requirements are made through account executives, program administrators, the customer, or the customer's contractor. The Electric and Natural Gas Companies provide program support and quality assurance.
- A third party provides loans and assumes all risks associated with repayment. The subsidized interest portion of the loan is funded by a Fund contribution (included as a program budget

line item) that buys down the interest rate to approximately 7 percent. This program is not applicable to new construction or major renovation projects, federal projects, or SBEA (and Municipal) projects that qualify and accept interest-free financing under the Electric Companies' existing C&LM financing program. It should be noted that if an SBEA or Municipal project were on an "incentive only" basis and did not proceed with the C&LM Small Business and Municipal Loan program financing offering, such a project would be eligible to pursue this loan offering. The maximum loan payment period is five years, or 60 months (based on a simple payback).

**Marketing Strategy:** This program seeks to encourage a higher market penetration of energy-efficient equipment by providing financing that supplements other program incentives for small C&I customers. Eligible customers involved with Fund C&I programs will be advised of loan participation requirements upon qualification of their intended conservation projects.

**New Program Issues** In addition to the Municipal and Small Business sectors, the Electric and Natural Gas Companies are looking to extend financing to larger qualified C&I customers who participate in current C&LM retrofit programs in 2011. Financing for these customers would be via one or more third parties or other sources of capital, with the Electric and Natural Gas Companies offering a subsidized low-interest or zero- interest-rate buy-down or subsidy funded by the Fund. This financing option would only be available for eligible retrofit or equipment-replacement projects.

Eligibility guidelines for this type of loan are as follows:

- 1.) The project must meet eligibility criteria for Energy Opportunities, Operation and Maintenance or Energy Conscious Blueprint programs.
- 2.) State, municipal or small business projects not qualifying for other Fund financing or initiatives are eligible.
- 3.) The loan must not be for a new construction or major renovation project.

The EDCs and LDCs are investigating ways to expand the loan offering to allow natural gas measures to take advantage of the Small C&I Financing option.

The Electric and Natural Gas Companies also plan to explore options to close the gap between the current third party maximum threshold for loans of \$250,000 and the \$1 million loan option available through the Department. One way to achieve this could be by working through an additional third-party lender or lenders who would provide this increased financing to bridge the gap because the Companies do not typically see a high volume of loans in this dollar range. Such projects are normally addressed on a case-by-case basis.

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## Residential Energy Efficiency Financing (Electric)

**Objective:** The objective of the Residential Energy Efficiency Financing pilot program is to provide third-party financing to residential customers who would otherwise find it difficult to afford energy-efficient measures.

**Target Market:** Participants in the HES program, with an emphasis on HES–High Performance participants due to the deeper measures expected to be implemented in the latter program.

**Program Description:** This program offers low-interest third-party loans, ranging from a minimum of \$2,000 to a maximum of \$20,000 per customer. Measures allowed include replacement central air conditioning, replacement heating systems, insulation, heat pumps, and hot-water heaters. A third-party financial institution provides financing at a below-market interest rate and assumes all risks associated with repayment. The Electric and Natural Gas Companies provide program support and quality assurance.

**Marketing Strategy:** This program is aimed at encouraging a higher market penetration of energy-efficiency measures in the residential sector (e.g., insulation and HVAC upgrades as well as deeper retrofits) by providing financing that supplements the HES incentives. Customer interest will be generated through the creation and distribution of marketing materials and by briefing vendors on its advantages.

**New Program Issues:** The Electric and Natural Gas Companies are working with the EEB to develop alternative approaches to financing for residential customers.

The current source of capital for these residential loans is Fannie Mae, whose present interest rates (14.99 percent) and buy-down costs to the fund are too high. The Companies are working internally, as well as with both AFC and EEB consultants, to find alternative sources of capital at rates lower than those offered by Fannie Mae. In 2011, the Companies and the EEB will monitor customer buy-down rates and adjust them accordingly in order to serve more customers and provide

financing solutions while utilizing ratepayer dollars to maximum advantage.

## ISO-NE Load Response Program (Electric)

- Objective:** The objective of the Electric Companies' ISO-NE Load Response ("Load Response") program is to provide support, financing and technical assistance to facilitate customer enrollment in the ISO-NE Load Response programs. For the Price Response part of the ISO-NE Load Response program these services are available to customers currently enrolled and those that are interested in participating. The Demand Response program mandates load curtailments from customers who enroll and provides enhanced system reliability during peak system load conditions. The Price Response program helps to mitigate high Locational Marginal Prices throughout the year.
- Target Market:** C&I customers capable of reducing their peak demand by a minimum 100 kW of load, either at a single site or in the aggregate for multiple facilities, are eligible for the program. The Demand Response portion of the program is accepting new enrollments to maintain Forward Capacity Market ("FCM") commitments.
- Program Description:** This Load Response program is designed to both maintain existing demand response enrollment and promote customer enrollment in one of several ISO NE-operated load response initiatives. The Electric Companies provide new participants with the ISO-NE-required internet-based communications system.
- Utilizing a current DEP permit, customers may run emergency generators to reduce load on the grid under emergency conditions, under the direction of the Electric Companies in compliance with Connecticut air quality requirements during Demand Response events.
- Marketing Strategy:** The Load Response program was previously marketed directly by the Electric Companies through face-to-face sales contacts and through participation in C&I Load Management Services or other Fund programs. Marketing tools have now been developed that include written program descriptions for customers. The Electric Companies also plan to conduct a Load

Response program seminar, if appropriate, in late spring of 2011 to highlight program changes for the coming year and to prepare customers for the continued increased performance requirements as well as upcoming demand response events or audits. (The principal customer contact for the Load Response program is the Electric Companies' account executive.) The Price Response program is currently accepting enrollment of new customers.

Based on the Final Decision in Docket No. 07-10-03, the Electric Companies cannot provide supplemental payments to any new customers who request to enroll in the Demand Response program. The Companies are now transitioning this program to one based on the capacity payments available from the FCM.

**Incentive Strategy:** Under the Load Response program, capacity payments are provided by ISO-NE through the Forward Capacity Market, which was launched in 2010. The Electric Companies expect the program to continue to be funded out of FCM revenues.

**UI Specific Issues:** As of June 1, 2010, UI ceased to operate this program as part of its Energy Efficiency Fund program offerings, and began operating it as a market-based program subject to the terms of ISO-NE Market Rule 1.

**CL&P Specific Issues** Since June 1, 2010, CL&P has operated this program as part of the existing Load Response program in its Energy Efficiency Fund program offerings. However, the revenues needed to fund this program now come from the Forward Capacity Market. CL&P will use the revenues from the FCM to pay for customer incentives (for participation and response to ISO-NE Demand Response Events), Internet-based communication system services, marketing, and administrative labor associated with the program. The program will be managed by the existing C&LM personnel and will be administered subject to the regulations described in ISO-NE Market Rule 1.

## CL&P Standard Filing Requirement

### Load Management

#### ISO-NE Response Program Support

All dollar values are in \$000

<u>Budget Projections</u>	<u>2008 Actuals</u>	<u>2009 Actuals</u>	<u>Revised 2010 Budget</u>	<u>2010 YTD (Aug)</u>	<u>2010 YE Projected</u>	<u>2011 Budget</u>	<u>2012 Budget</u>
Labor:							
NU Labor	\$ 81	\$ 89	\$ 396	\$ 105	\$ 300	\$ 500	\$ 500
Contractor Staff	\$ 7	\$ -	\$ -	\$ 55	\$ 100	\$ 173	\$ 50
Total Labor	\$ 88	\$ 89	\$ 396	\$ 160	\$ 400	\$ 673	\$ 550
Materials & Supplies	\$ -	\$ 1	\$ 5	\$ 0	\$ 0	\$ 5	\$ 3
Outside Services	\$ 76	\$ 52	\$ 1,030	\$ 144	\$ 750	\$ 1,000 a)	\$ 1,000
Incentives (Supplemental Payments)	\$ 278	\$ (43)	\$ 4,547	\$ 710	\$ 1,847	\$ 1,300 b) c)	\$ 1,425
Marketing	\$ 1	\$ -	\$ 10	\$ -	\$ -	\$ 10 d)	\$ 10
Administrative Expenses	\$ 13	\$ 3	\$ 12	\$ 2	\$ 3	\$ 12 e)	\$ 12
Other	\$ -	\$ 0	\$ -	\$ 0	\$ 0	\$ -	\$ -
Total	\$ 456	\$ 103	\$ 6,000	\$ 1,016	\$ 3,000	\$ 3,000	\$ 3,000

a) Includes communications software usage fees and meter maintenance fees.

b) Incentives (Supplemental payments) are for Demand Response, offset by ISO-NE Transition Period Payments. ISO-NE Transition Period and ISO-NE ODR Payments are increasing, offsetting more of program costs.

c) Incentives paid to customers for facility upgrades that help enable load response.

d) Dollars for providing the participants with the latest program information and refresher training.

e) Employee expenses including mileage, training, conference attendance and misc.

#### 2011 Goals and Metrics Information

Demand Savings (kW Reduction Goal)	110,000
Annual Energy Savings (kWh Reduction Goal)	N/A
Lifetime Energy Savings (kWh Reduction Goal)	N/A
Annual Cost Rate (\$/kWh)	N/A
Lifetime Cost Rate (\$/kWh)	N/A
Electric b/c Ratio	1.0
Total Resource b/c Ratio	1.0

## CL&P Standard Filing Requirement

### Load Management

#### ISO-NE Load Response Supplemental Payments & ISO-NE Response Program Support

Year	<u>Program Costs</u>		% of Budget	\$/MW
	Budget	Actual		
2000	\$ 1,799,000	\$ 2,750,000	153%	
2001	\$ 1,270,000	\$ 2,750,000	217%	
2002	\$ 1,908,000	\$ 1,722,000	90%	n/a
2003	\$ 2,805,000	\$ 2,437,000	87%	n/a
2004	\$ 350,000	\$ 140,000	40%	n/a
2005 Revised	\$ 2,513,893	\$ 456,000	18%	\$7,506
2006 Revised	\$ 1,400,000	\$ 1,241,601	89%	\$52,664
2007 Revised	\$ 1,483,167	\$ 456,000	31%	\$28,500
2008 Revised	\$ 480,000	\$ 456,025	95%	\$26,369
2009 Revised	\$ 350,000	\$ 102,909	29%	\$7,916
2010 Revised	6,000,146	n/a	n/a	n/a
2010 YTD (Aug)	n/a	\$ 1,015,852	17%	\$6,194
2010 Y/E Projected	n/a	\$ 2,999,777	50%	\$27,271
2011	\$ 2,999,980	n/a	n/a	n/a

#### SWCT Goal - MW Enrollment

Year	Budget	Actual	% of Budget
2002	n/a	n/a	n/a
2003	20	17	85%

#### nonSWCT Goal - MW Enrollment

Year	Budget	Actual	% of Budget
2002	n/a	n/a	n/a
2003	20	25	125%

#### Statewide Goal - MW Enrollment

Year	Budget	Actual	% of Budget
2004	16	29.9	187%
2005 Revised	10	61	608%
2006 Revised	32	24	74%
2007 Revised	20	16	80%
2008 Revised	10	17	173%
2009 Revised	10	13	130%
2010 Revised	180	n/a	n/a
2010 YTD (Aug)	n/a	164	91%
2010 Y/E Projected	n/a	110	61%
2011	110	n/a	n/a

#### Program Ratios

Year	<u>\$/Lifetime kWh</u>		<u>\$/Annualized kW</u>	
	Plan	Actual	Plan	Actual
2002	n/a	n/a	n/a	n/a
2003	n/a	n/a	\$70	\$58
2004	n/a	n/a	\$22	\$5
2005 Revised	n/a	n/a	\$251	\$8
2006 Revised	n/a	n/a	\$32	n/a
2007 Revised	n/a	n/a	\$74	n/a
2008 Revised	n/a	n/a	\$32	n/a
2009 Revised	n/a	n/a	\$32	n/a
2010 Revised	n/a	n/a	\$33	n/a
2010 YTD (Aug)	n/a	n/a	n/a	6
2010 Y/E Projected	n/a	n/a	n/a	27
2011	n/a	n/a	\$32	n/a

## CL&P Standard Filing Requirement

### CL&P Program Notes

Budget / (FTE)

3.8 FTE for Program Administration

Goal

Not applicable.

Cost/kWh (Cost/Unit)

Not applicable.

Goal Setting Methodology

Not applicable.

Metric Changes

Not applicable.

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## Research, Development and Demonstration (Electric)

**Objective:** The objective of the joint-utility Research, Development and Demonstration (“RD&D”) program is the advancement of new energy-efficiency measures and more cost-effective and efficient renewable energy technologies. The program is one in which the Electric Companies jointly participate.

**Target Market** At present the RD&D program is not in a position to accommodate any new clients, since its mandate is currently limited to energy-saving and distributed resource RD&D projects funded in previous years. No new projects will be funded in 2011. However, limited funding may become available for continuation of previously funded RD&D projects.

**Program Description:** The RD&D program currently provides engineering and marketing support for previously funded RD&D projects to help them acquire alternative funding, review their reports, and help commercialize their projects to whatever extent possible.

The RD&D program will continue its active participation on the Daylight Dividends Program Steering Committee during 2010. Daylight Dividends is a two-year, joint research and development program led by the Rensselaer Polytechnic Institute (“RPI”) Lighting Research Center (“LRC”). In addition to the joint-utility RD&D program administered by CL&P, partnership sponsor members include the New York State Energy Research and Development Authority (“NYSERDA”), Efficiency Vermont, and Whole Foods Store. The Steering Committee reviews existing programs, research results and technological barriers to effective, energy-efficient use of day lighting, and sets priorities for project activities to be undertaken to overcome such barriers and/or knowledge gaps. Current activities of the Daylight Dividends Research program may be reviewed at the web site: [www.daylightdividends.org](http://www.daylightdividends.org).

Engineering and marketing support may be provided for RD&D projects previously funded to help them acquire alternative funding, review their reports, and help commercialize their projects to the extent possible.

Goals: The goal of the RD&D program is to maximize prior-year investments of RD&D project funding and assist with leveraging of additional funding from other sources for follow-up development and/or commercialization activities.

A second goal of the RD&D program is to provide timely technical reviews of new products or technologies proposed for consideration of their potential for inclusion in an existing Fund program.

New Program Issues: The 2011 RD&D program funding level does not accommodate the RFP solicitation of new energy-saving or distributed resource projects for project funding consideration.

The role of the joint-utility RD&D program has been expanded to provide on-going technical support of the EEB Roadmap Process, under which new products or technologies submitted to the EEB are evaluated for consideration of their potential inclusion in an existing Fund program. The RD&D program reviews and assesses the feasibility, appropriateness, potential effectiveness and cost effectiveness of each proposed new product or technology and makes resultant recommendations to the EEB. Such reviews are prepared by the RD&D program staff, with input from utility program administrators, EEB consultants, and others as may be appropriate. Review oversight is provided by the RD&D program's Policy Working Group.

## CL&P Standard Filing Requirement

### Research, Development and Demonstration

All dollar values are in \$000

<u>Budget Projections</u>	<u>2008 Actuals</u>	<u>2009 Actuals</u>	<u>Revised 2010 Budget</u>	<u>2010 YTD (Aug)</u>	<u>2010 YE Projected</u>	<u>2011 Budget</u>	<u>2012 Budget</u>
Labor:							
NU Labor	\$ 77	\$ 73	\$ 70	\$ 64	\$ 102	\$ 74 a)	\$ 74
Contractor Staff	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Labor	\$ 77	\$ 73	\$ 70	\$ 64	\$ 102	\$ 74	\$ 74
Marketing and Materials	\$ -	\$ -	\$ 2	\$ 0	\$ 0	\$ 2	\$ 2
Outside Services	\$ 34	\$ 1	\$ 197	\$ 0	\$ -	\$ 119 b)	\$ 71
Fees and Incentives	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Administrative Expense	\$ 4	\$ 2	\$ 5	\$ 3	\$ 4	\$ 5	\$ 3
Other	\$ -	\$ 0	\$ -	\$ 1	\$ 1	\$ -	\$ -
Total	\$ 115	\$ 75	\$ 274	\$ 67	\$ 107	\$ 200	\$ 150

a) NU Labor in support of the following activities:

Technical review support of the ECMB Roadmap Process;

Administration of monthly RD&D Program Policy Working Group (PWG) Meetings;

Technical reviews of new energy efficiency products submitted to C&LM for consideration under existing programs;

Includes NU Labor in support of Heat Pump Water Heater program closeout.

b) Engineering consultant(s) due diligence reviews & site visits as required;

Anticipated continuation of one or more on-going RD&D projects - subject to

RD&D Program Staff, and Policy Working Group (PWG) review, recommendation

and ECMB funding approval \$120K.

**2011 Goals and Metrics Information** - The RD&D Program does not have a kW or kWh savings metric.

Demand Savings (kW Reduction Goal) N/A

Annual Energy Savings (KWh Reduction Goal) N/A

Lifetime Energy Savings (kWh Reduction Goal) N/A

Annual Cost Rate (\$/kWh) N/A

Lifetime Cost Rate (\$/kWh) N/A

Electric b/c Ratio N/A

Total Resource b/c Ratio N/A

**Note:** The goal is to maximize prior-year investments of RD&D project funding, and assist with leveraging additional funding from other sources for follow-on development and/or commercialization activities.

## CL&P Standard Filing Requirement

### Research, Development and Demonstration

Not a goal based program.

### RD&D Program

### CL&P Program Notes

#### Budget / (FTE)

0.6 FTE for program administration of Research, Development and Demonstration activities

#### Goal

To maximize prior-year investments of RD&D project funding, and assist with leveraging additional funding from other sources for follow-on development and/or commercialization activities.

To provide on-going technical review support of the Energy Conservation Management Board (ECMB) Roadmap process. Technical reviews are provided for evaluation of new products or technologies that are submitted to the ECMB for consideration of their potential for inclusion in an existing C&LM Program.

To provide on-going technical review support for new products or technologies that are submitted directly to C&LM for consideration of their potential for inclusion in an existing C&LM program.

#### Cost/kWh (Cost/Unit)

Not applicable.

#### Goal Setting Methodology

Not applicable.

#### Metric Changes

Not applicable.

**The United Illuminating Company**  
**EL-25 Standard Filing Requirement**  
**2011**

Research, Development & Demonstration

<b><u>Budget Projections</u></b>	<b><u>2009 Act</u></b>	<b><u>2010 Revised Bud</u></b>	<b><u>2010 YTD (Aug)</u></b>	<b><u>2010 YE Projected</u></b>	<b><u>2011 Bud</u></b>	<b><u>2012 Bud</u></b>
Labor						
UI Labor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Contractor Staff	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Labor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Materials & Supplies	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Outside Services	\$ 85,180	\$ 125,000	\$ 102,127	\$ 125,000	\$ 125,000	\$ 125,000
Incentives	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Marketing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Administrative Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 85,180</b>	<b>\$ 125,000</b>	<b>\$ 102,127</b>	<b>\$ 125,000</b>	<b>\$ 125,000</b>	<b>\$ 125,000</b>

## CL&P Standard Filing Requirement

### Administration

All dollar values are in \$000

<u>Budget Projections</u>	<u>2008</u> <u>Actuals</u>	<u>2009</u> <u>Actuals</u>	<u>Revised</u> <u>2010 Budget</u>	<u>2010</u> <u>YTD (Aug)</u>	<u>2010</u> <u>YE Projected</u>	<u>2011</u> <u>Budget</u>	<u>2012</u> <u>Budget</u>
Labor:							
NU Labor	\$ 555	\$ 709	\$ 893	\$ 457	\$ 786	\$ 765 a)	\$ 674
Contractor Staff	\$ -	\$ 1	\$ 50	\$ 15	\$ 23	\$ 44	\$ -
Total Labor	\$ 555	\$ 710	\$ 943	\$ 473	\$ 809	\$ 809	\$ 674
Materials & Supplies	\$ 1	\$ 2	\$ 10	\$ 3	\$ 5	\$ 8	\$ 7
Outside Services	\$ 3	\$ 12		\$ 2	\$ 4	\$ -	\$ -
Incentives	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Marketing	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ -	\$ -
Administration	\$ 17	\$ 10	\$ 83	\$ 11	\$ 16	\$ 53 b)	\$ 44
Other	\$ 10	\$ 14	\$ 26	\$ 8	\$ 12	\$ 30 c)	\$ 25
Total	\$ 586	\$ 748	\$ 1,062	\$ 497	\$ 846	\$ 900	\$ 750

a) Budget includes Business Management FTE's.

b) Budget includes industry association expenses and sponsorship fees.

c) Employee expenses including mileage, training, conference attendance and misc.

**The United Illuminating Company**  
**EL-25 Standard Filing Requirement**  
**2011**

**Administration**

<b><u>Budget Projections</u></b>	<b><u>2009 Act</u></b>	<b><u>2010 Revised Bud</u></b>	<b><u>2010 YTD (Aug)</u></b>	<b><u>2010 YE Projected</u></b>	<b><u>2011 Bud</u></b>	<b><u>2012 Bud</u></b>
Labor						
UI Labor	\$ 458,229	\$ 606,504	\$ 350,463	\$ 606,504	\$ 603,103	\$ 633,258
Contractor Staff	\$ 18,720	\$ -	\$ 4,440	\$ 4,440	\$ -	\$ -
Total Labor	\$ 476,949	\$ 606,504	\$ 354,903	\$ 610,944	\$ 603,103	\$ 633,258
Materials & Supplies	\$ 27,105	\$ 2,500	\$ 23,412	\$ 23,412	\$ 2,500	\$ 2,500
Outside Services	\$ 98,792	\$ 25,374	\$ 96,032	\$ 96,032	\$ 35,332	\$ 35,830
Incentives	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Marketing	\$ 4,050	\$ -	\$ 1,599	\$ 1,599	\$ -	\$ -
Other	\$ 13,753	\$ -	\$ 10,708	\$ 10,708	\$ -	\$ -
Administrative Expenses	\$ 3,801	\$ 5,700	\$ 3,505	\$ 5,700	\$ 5,700	\$ 5,700
Total	\$ 624,450	\$ 640,078	\$ 490,159	\$ 748,395	\$ 646,635	\$ 677,288

## CL&P Standard Filing Requirement

### Planning

All dollar values are in \$000

<u>Budget Projections</u>	<u>2008 Actuals</u>	<u>2009 Actuals</u>	<u>Revised 2010 Budget</u>	<u>2010 YTD (Aug)</u>	<u>2010 YE Projected</u>	<u>2011 Budget</u>	<u>2012 Budget</u>
Labor:							
NU Labor	\$ 612	\$ 491	\$ 636	\$ 279	\$ 518	\$ 627	\$ 531
Contractor Staff	\$ 35	\$ 2	\$ -	\$ 2	\$ 3	\$ -	\$ -
Total Labor	\$ 647	\$ 493	\$ 636	\$ 281	\$ 521	\$ 627	\$ 531
Materials & Supplies	\$ 9	\$ 3	\$ 6	\$ 2	\$ 3	\$ 6	\$ 5
Outside Services	\$ 5	\$ 83	\$ -	\$ 18	\$ 26	\$ -	\$ -
Incentives	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Marketing	\$ 4	\$ 4	\$ -	\$ 7	\$ 10	\$ -	\$ -
Administration	\$ 24	\$ 12	\$ 9	\$ 5	\$ 8	\$ 8	\$ 7
Other	\$ 20	\$ 25	\$ 9	\$ 0	\$ 0	\$ 9	\$ 8
Total	\$ 709	\$ 619	\$ 660	\$ 313	\$ 568	\$ 650	\$ 550

**The United Illuminating Company**  
**EL-25 Standard Filing Requirement**  
**2011**

Planning & Evaluation

<u>Budget Projections</u>	<u>2009 Act</u>	<u>2010 Revised Bud</u>	<u>2010 YTD (Aug)</u>	<u>2010 YE Projected</u>	<u>2011 Bud</u>	<u>2012 Bud</u>
Labor						
UI Labor	\$ 342,353	\$ 357,583	\$ 183,328	\$ 300,000	\$ 303,402	\$ 318,572
Contractor Staff	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Labor	\$ 342,353	\$ 357,583	\$ 183,328	\$ 300,000	\$ 303,402	\$ 318,572
Materials & Supplies	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Outside Services	\$ 178,690	\$ 430,000	\$ 159,632	\$ 239,448	\$ 430,000	\$ 430,000
Incentives	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Marketing	\$ 4,616	\$ -	\$ 4,502	\$ 4,502	\$ -	\$ -
Other	\$ 758	\$ -	\$ 750	\$ 750	\$ -	\$ -
Administrative Expenses	\$ 625	\$ 5,417	\$ -	\$ 165	\$ 5,417	\$ 5,417
Total	\$ 527,042	\$ 793,000	\$ 348,212	\$ 544,865	\$ 738,819	\$ 753,989

## CL&P Standard Filing Requirement

### Evaluation

All dollar values are in \$000

<u>Budget Projections</u>	<u>2008 Actuals</u>	<u>2009 Actuals</u>	<u>Revised 2010 Budget</u>	<u>2010 YTD (Aug)</u>	<u>2010 YE Projected</u>	<u>2011 Budget</u>	<u>2012 Budget</u>
Labor:							
NU Labor	\$ 113	\$ 98	\$ 150	\$ 44	\$ 66	\$ 116	\$ 116
Contractor Staff	\$ 33	\$ 36	\$ 50	\$ 18	\$ 27	\$ 53	\$ 53
Total Labor	\$ 146	\$ 133	\$ 200	\$ 62	\$ 93	\$ 169	\$ 169
Materials & Supplies	\$ 3	\$ 25	\$ 8	\$ 1	\$ 1	\$ 5	\$ 3
Outside Services	\$ 589	\$ 838	\$ 1,982	\$ 412	\$ 917	\$ 1,616	\$ 1,071
Incentives	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Marketing	\$ (4)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Administration	\$ (9)	\$ 2	\$ 5	\$ 2	\$ 3	\$ 5	\$ 3
Other	\$ -	\$ 0	\$ 5	\$ 0	\$ 0	\$ 5	\$ 3
Total	\$ 725	\$ 999	\$ 2,200	\$ 476	\$ 1,014	\$ 1,800	\$ 1,250

## CL&P Standard Filing Requirement

### Information Technology

All dollar values are in \$000

<u>Budget Projections</u>	<u>2008</u> <u>Actuals</u>	<u>2009</u> <u>Actuals</u>	<u>Revised</u> <u>2010 Budget</u>	<u>2010</u> <u>YTD (Aug)</u>	<u>2010</u> <u>YE Projected</u>	<u>2011</u> <u>Budget</u>	<u>2012</u> <u>Budget</u>
Labor:							
NU Labor	\$ 520	\$ 418	\$ 745	\$ 260	\$ 491	\$ 745 a)	\$ 745
Contractor Staff	\$ -	\$ 68	\$ -	\$ 3	\$ 5	\$ -	\$ -
Total Labor	\$ 520	\$ 486	\$ 745	\$ 264	\$ 495	\$ 745	\$ 745
Materials & Supplies	\$ 182	\$ 82	\$ 200	\$ 25	\$ 37	\$ 200	\$ 176
Outside Services	\$ 350	\$ 662	\$ 886	\$ 732	\$ 1,174	\$ 675 b)	\$ 508
Incentives	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Administration	\$ 584	\$ 39	\$ 100	\$ 4	\$ 5	\$ 80 c)	\$ 71
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ 1,636	\$ 1,269	\$ 1,931	\$ 1,024	\$ 1,711	\$ 1,700	\$ 1,500

a) Includes NU IT labor support charged to C&LM for Day-to-day support of desktop hardware and operating system software, including problem resolution and repairs. Also includes enhancements to existing applications in response to changing business requirements or NU computing infrastructure; Development of new applications to support new C&LM programs and reporting requirements. The C&LM Tracking and Reporting Initiative is also included.

b) Includes Vendor support to design/build the IT Initiative.

c) Includes Vendor support coded as software design/build the IT Initiative

**The United Illuminating Company**  
**EL-25 Standard Filing Requirement**  
**2011**

**Information Technology**

<b><u>Budget Projections</u></b>	<b><u>2009 Act</u></b>	<b><u>2010 Revised Bud</u></b>	<b><u>2010 YTD (Aug)</u></b>	<b><u>2010 YE Projected</u></b>	<b><u>2011 Bud</u></b>	<b><u>2012 Bud</u></b>
Labor						
UI Labor	\$ 45,490	\$ 47,115	\$ 30,725	\$ 47,115	\$ 48,528	\$ 50,954
Contractor Staff	\$ -	\$ 12,589	\$ -	\$ 12,589	\$ 12,589	\$ 12,589
Total Labor	\$ 45,490	\$ 59,704	\$ 30,725	\$ 59,704	\$ 61,117	\$ 63,543
Materials & Supplies	\$ 73,858	\$ 72,851	\$ 51,921	\$ 72,851	\$ 72,075	\$ 69,649
Outside Services	\$ 144,038	\$ 107,208	\$ 101,722	\$ 107,208	\$ 107,208	\$ 107,208
Incentives	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Marketing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Administrative Expenses	\$ 2,659	\$ 3,237	\$ 44	\$ 150	\$ 2,600	\$ 2,600
<b>Total</b>	<b>\$ 266,045</b>	<b>\$ 243,000</b>	<b>\$ 184,412</b>	<b>\$ 239,913</b>	<b>\$ 243,000</b>	<b>\$ 243,000</b>

## CL&P Standard Filing Requirement

### Residential Loan Fund (Includes ECLF)

All dollar values are in \$000

<b><u>Budget Projections</u></b>	<b><u>2008</u></b>	<b><u>2009</u></b>	<b><u>Revised</u></b>	<b><u>2010</u></b>	<b><u>2010</u></b>	<b><u>2011</u></b>	<b><u>2012</u></b>
	<b><u>Actuals</u></b>	<b><u>Actuals</u></b>	<b><u>2010 Budget</u></b>	<b><u>YTD (Aug)</u></b>	<b><u>YE Projected</u></b>	<b><u>Budget</u></b>	<b><u>Budget</u></b>
Labor:							
NJ Labor	\$ -	\$ -		\$ 10	\$ 15	\$ 30	\$ 30
Contractor Staff	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Labor	\$ -	\$ -	\$ -	\$ 10	\$ 15	\$ 30	\$ 30
Materials & Supplies	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Outside Services	\$ -	\$ -	\$ 4,350	\$ 686	\$ 3,000	\$ 3,120 a)	\$ 2,170
Incentives	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Administration	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ 4,350	\$ 696	\$ 3,015	\$ 3,150	\$ 2,200

a) Includes the Energy Conservation Loan Fund (ECLF) and Neighbor-to-Neighbor (N2N) costs of \$152K (\$452K over three years)

**The United Illuminating Company**  
**EL-25 Standard Filing Requirement**  
**2011**

**Residential Loan Fund (Includes ECLF)**

<b><u>Budget Projections</u></b>	<b><u>2009 Act</u></b>	<b>2010 <u>Revised Bud</u></b>	<b>2010 <u>YTD (Aug)</u></b>	<b>2010 <u>YE Projected</u></b>	<b><u>2011 Bud</u></b>	<b><u>2012 Bud</u></b>
Labor						
UI Labor	\$ -	\$ -	\$ 2,008	\$ 7,000	\$ 28,614	\$ 30,045
Contractor Staff	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Labor	\$ -	\$ -	\$ 2,008	\$ 7,000	\$ 28,614	\$ 30,045
Materials & Supplies	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Outside Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Incentives	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Marketing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other	\$ -	\$ 1,060,473	\$ 82,767	\$ 600,000	\$ 560,473	\$ 560,473
Administrative Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ -</b>	<b>\$ 1,060,473</b>	<b>\$ 84,775</b>	<b>\$ 607,000</b>	<b>\$ 589,087</b>	<b>\$ 590,518</b>

## CHAPTER SIX: BENEFIT COST ANALYSIS (Electric and Natural Gas)

### *Introduction*

For the 2011 C&LM Plan, the Electric and Natural Gas Companies have continued to use common benefit-cost screening tools and consistent values and similar assumptions for key variables. The electric- and natural gas- avoided costs that are used are based on a regional avoided-cost study (“ACS”) completed in 2009 for New England utilities by Synapse Energy Economics<sup>7</sup>. The transmission and distribution (electric) avoided costs are based on studies conducted by the Companies in 2009<sup>8</sup>.

For electric program benefit-cost screening, the avoided costs include energy, generation capacity, distribution, transmission and Demand Reduction Induced Price Effect, or DRIFE<sup>9</sup>. In addition, non-electric benefits, including fossil fuel savings, water, and non-resource benefits, are quantified. For natural gas benefit-cost screening, avoided costs include natural gas, as well as other non-gas benefits such as water savings.

The Electric and Natural Gas Companies use the Connecticut Program Savings Documentation (“PSD”) to document savings assumptions and to highlight 2011 program changes and the results of recent program evaluations. The PSD<sup>10</sup> provides engineering estimates, savings algorithms and measure life estimates used by the Companies within their programs. It also reflects the results of evaluations by providing realization rates to “true-up” savings. In 2011, the PSD will undergo a third party review to assess its accuracy and completeness.

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<sup>7</sup> Avoided Energy Supply Costs in New England: 2009 Report, Oct. 23, 2009, Synapse Energy Economics, Inc.

<sup>8</sup> CL&P values based on *Assessment of Avoided Cost of Transmission and Distribution*, ICF International, October 30, 2009. UI values were based The United Illuminating Company Avoided Transmission & Distribution Study, Black & Veatch, October 27, 2009

<sup>9</sup> Demand-Reduction-Induced Price Effects, the reduction in prices in the wholesale energy and capacity markets because of the reduction in energy and demand.

<sup>10</sup> The Companies’ PSD is filed annually as part of the Electric and Natural Gas Companies’ C&LM Plan. The PSD is a centralized reference of savings (energy, capacity, fossil fuel and other non-electric) assumptions used by the Electric and Natural Gas Companies.

Use of common cost-effectiveness testing methodologies and savings assumptions allows the Department, the EEB and others to compare the benefits, costs, and benefit/cost ratios (“BCRs”) of both the Electric and Natural Gas Companies on an “apples to apples” basis. All electric and natural gas conservation measures are evaluated within an integrated supply-and-demand planning framework to ensure that the programs are cost-effective and yield positive net benefits to the customers.

### *Benefit-Cost Tests*

For the analysis of the proposed 2011 C&LM Plan programs, the Electric and Natural Gas Companies used the same two tests: the **Utility Cost Test**<sup>11</sup> and the **Total Resource Test**. The Utility Cost Test compares the present value of utility-specific program benefits to the “utility cost”, or program cost, of the program. For electric-benefit cost testing, the Utility Cost Test includes electric benefits and electric program costs. For natural gas, the Utility Cost Test compares the value of natural gas benefits with the natural gas program costs.

In the simplest sense, the benefit of an efficiency measure is the net present value of the avoided costs (i.e., value of the savings in 2011 dollars) associated with the net savings of that measure over the life of the measure. The savings is the “net savings,” as defined in the PSD. Therefore, the savings includes impact factors and realization rates that result from evaluation studies. Likewise, the life (in years) of a measure is defined in the PSD and is based on either the technical life of the measure or study results.

For electric measures, the electric benefit is broken into four main components: (1) the energy benefit; (2) the avoided generation capacity; (3) avoided transmission and distribution; and (4) Demand Reduction Induced Price Effect (DRIPE). The total electric benefit for a measure is the net present value of these avoided costs taken over the life of the measure.<sup>12</sup> For natural gas measures, the benefit is based on the amount of avoided natural gas. The avoided cost of natural gas is calculated based on monthly load shapes. The monthly avoided gas cost includes both avoided fixed costs (cash

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<sup>11</sup> The Utility Cost Test is referred to as the Electric System Test (for electric conservation programs) or the Gas System Test (for natural gas conservation programs).

<sup>12</sup> Additional information can be found in Docket No. 06-10-02, Order 5. This document provides an informative and detailed description and example of the benefit-cost calculations that are used in the measures screening process. <http://www.dpuc.state.ct.us/DOCKHIST.NSF/60903cc7b9de44728525746b006e8ffb/0a1d4ae80b371f408525755a004c3dfa?OpenDocument&scrollTop=1462>.

pipeline demand charges) and variable costs (gas commodity costs, cash pipeline usage charges and adjustments for fuel and losses in pipeline transportation and storage of gas).

In the case of electric programs, the “utility cost” includes revenue from the Fund’s 3-Mil charge, ISO-NE FCM, Class III Renewable Energy Credit (“REC”) sales revenues, and RGGI (refer to Table A-1 in the Chapter 1 Overview). It is assumed that these revenue sources are collected from program participants either directly (e.g., the 3-mil charge) or indirectly through collection mechanisms that eventually trickle down to the customer level. Note that ARRA<sup>13</sup> funding is an additional source of program funding but it is not included in the utility cost test because it is provided through the federal government and not directly by Connecticut ratepayers. For natural gas programs, the “utility cost” is program funding, which is collected directly from customers.

The Total Resource Test compares the present value of future utility system and other customer savings to the total of the conservation expenditures plus customer costs necessary to implement the programs. The customer cost is above and beyond the program cost and represents out-of-pocket costs that a customer may make when installing a measure. Stated another way, the Total Resource Test evaluates the total cost of a measure (including program and customer out-of-pocket costs) with the “fuel blind” benefit of the measure. While certain programs may have low BCRs when assessed by the Utility System Test, the Total Resource Test provides a more comprehensive measure of the overall economic impact, since such programs may often have some value that is not recognized in the Utility System Test, such as other fuels, maintenance savings, or water savings.

Table B (Chapter 1) shows the BCRs for each program and sectors. Table B-1 shows the composition of the benefits for each program and sector. In order to avoid double-counting of benefits, natural gas benefits and costs are not counted in the Total Resource Test for the Electric Companies’ programs. Therefore, the Total Resource costs and benefits in the electric and natural gas Table B’s are additive.

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<sup>13</sup> American Recovery and Reinvestment Act

The following table illustrates the components of the benefit cost tests that are used for program and measure screening:

Benefit-Cost Test	Cost							Benefit		
	3-Mil	ISO	Class III	RGGI	ARRA	Gas Collections	Customer Cost (Electric)	Customer Cost (Gas)	Electric	Gas
Electric System Test	v	v	v	v					v	
Gas System Test						v				v
Total Resource Test (Electric)	v	v	v	v	v		v		v	
Total Resource Test (Gas)						v		v		v

### *Electric System Screening*

The following avoided costs are used by the Electric Companies when calculating Electric BCRs for the 2011 C&LM Plan programs. The ACS presents the avoided costs in “real” dollars. However, the avoided costs used to screen programs are in nominal dollars in accordance with the department’s March 17, 2010 Final Decision (Docket No. 09-10-03 and 08-10-02). The Companies assumed a 2 percent inflation rate from ACS to adjust from real to nominal dollars. These values are from the ACS. The ACS divided Connecticut into three separate geographic zones: the Norwalk/Stamford region, Southwest Connecticut, and non-Southwest Connecticut. Avoided costs were produced for each of those three zones as well as Connecticut statewide averages. The ACS found that market prices and out-of-market costs varied only slightly across these three sub-areas. The Electric Companies are using Connecticut statewide average avoided costs.

- **Avoided Electric Energy Values:** The Electric energy prices used by the Electric Companies are from the ACS. The avoided costs were estimated by factoring in the electric market zone, anticipated fossil fuel costs, existing generation, expected retirements and upgrades, and environmental regulations. Consistent with ISO-NE, energy prices are divided into the following four time periods:
  - Winter Peak: October - May; 6 a.m. - 10 p.m., weekdays excluding holidays.
  - Winter Off-Peak: October - May; 10 p.m. - 6 a.m., weekdays and also all weekends and ISO-NE defined holidays.
  - Summer Peak: June - September; 6 a.m. - 10 p.m., weekdays excluding holidays.

- Summer Off-Peak: June - September; 10 p.m. - 6 a.m., weekdays.  
Also all weekends and ISO-NE defined holidays.

The following table shows statewide electric energy avoided costs used in the 2011 C&LM Plan.

**Table 1 - 2011 ACS Connecticut Avoided Electric Energy Costs**  
 Values are in nominal dollars<sup>14</sup>.

<b>Year</b>	<b>Winter Peak Energy (\$ per kWh)</b>	<b>Winter Off-Peak Energy (\$ per kWh)</b>	<b>Summer Peak Energy (\$ per kWh)</b>	<b>Summer Off-Peak Energy (\$ per kWh)</b>
2011	\$0.086	\$0.067	\$0.090	\$0.064
2012	\$0.096	\$0.074	\$0.095	\$0.069
2013	\$0.099	\$0.081	\$0.101	\$0.078
2014	\$0.102	\$0.084	\$0.105	\$0.081
2015	\$0.104	\$0.087	\$0.109	\$0.082
2016	\$0.107	\$0.091	\$0.114	\$0.086
2017	\$0.113	\$0.097	\$0.121	\$0.093
2018	\$0.121	\$0.102	\$0.125	\$0.098
2019	\$0.125	\$0.107	\$0.130	\$0.101
2020	\$0.127	\$0.109	\$0.133	\$0.104
2021	\$0.126	\$0.108	\$0.132	\$0.104
2022	\$0.129	\$0.112	\$0.136	\$0.107
2023	\$0.135	\$0.116	\$0.144	\$0.113
2024	\$0.144	\$0.122	\$0.152	\$0.120
2025	\$0.150	\$0.127	\$0.158	\$0.125
2026	\$0.156	\$0.132	\$0.165	\$0.131
2027	\$0.162	\$0.137	\$0.171	\$0.137
2028	\$0.169	\$0.143	\$0.178	\$0.144
2029	\$0.176	\$0.149	\$0.186	\$0.151
2030	\$0.183	\$0.156	\$0.194	\$0.158

<sup>14</sup> ACS Appendix B, page B-7 adjusted for inflation.

- **Avoided Electric Generation Capacity Prices:** Avoided Generation Capacity prices are associated with demand savings, which is coincident with system peak. For the purpose of calculating BCRs, coincident system peak savings is based on the average capacity savings that takes place during the ISO-NE definition of Seasonal Summer Peak Savings, or average peak savings that takes place when the system exceeds at least 90 percent of the latest 50-50 forecasts (weather-driven extremes).

The avoided capacity costs are provided in two broad categories of approaches: capacity that is bid into the FCAs as a resource; and capacity that is not bid into the FCA but has value because it is reducing the ISO-NE forecast of peak demand for which capacity has to be acquired. The Electric Companies use a weighted average estimate of 86 percent of capacity being bid into the FMC market. The two capacity values along with the weighted average based on the 86 percent FCA bid average are shown in Table 2.

**Table 2 - 2011 ACS Connecticut Avoided Capacity Costs**  
**Values are in nominal dollars<sup>15</sup>**

Year	kW Bid into FCM (\$ per kW-Year)	kW Not Bid into FCM (\$ per kW-Year)	Weighted Average (\$ per kW-Year)
2011	\$52.62	\$0.00	\$45.25
2012	\$37.92	\$0.00	\$32.61
2013	\$18.24	\$0.00	\$15.68
2014	\$18.60	\$21.92	\$19.07
2015	\$20.43	\$24.10	\$20.95
2016	\$22.33	\$26.38	\$22.90
2017	\$22.78	\$26.93	\$23.36
2018	\$24.78	\$29.32	\$25.42
2019	\$25.28	\$29.93	\$25.93
2020	\$27.39	\$32.47	\$28.10
2021	\$29.59	\$35.10	\$30.36
2022	\$31.85	\$37.82	\$32.69
2023	\$34.20	\$40.64	\$35.10
2024	\$36.63	\$43.57	\$37.60
2025	\$55.15	\$65.65	\$56.62
2026	\$74.40	\$88.64	\$76.40
2027	\$94.40	\$112.57	\$96.94
2028	\$115.17	\$137.45	\$118.29
2029	\$136.73	\$163.32	\$140.45
2030	\$157.14	\$187.86	\$161.44

<sup>15</sup> ACS Appendix B, page B-7 adjusted for inflation.

- The DRIPE values are based on small incremental decreases in market prices as a result of lower energy and capacity demand due to conservation and load management efforts. While conservation efforts may only have a very small impact on price, the absolute dollar amount is significant when that lower price is applied to all energy and capacity being purchased in the market. DRIPE impacts are projected to dissipate over time as the market adjusts to the new lower energy and capacity requirements.

**Table 3 - 2011 ACS Connecticut DRIPE Capacity and Energy Avoided Costs<sup>16</sup>**  
 Values are in nominal dollars

Year	Capacity DRIPE (\$ per kW)	WP Energy DRIPE (\$ per kWh)	WOP Energy DRIPE (\$ per kWh)	SP Energy DRIPE (\$ per kWh)	SOP Energy DRIPE (\$ per kWh)
2011	\$0.00	\$0.048	\$0.031	\$0.052	\$0.022
2012	\$0.00	\$0.051	\$0.033	\$0.053	\$0.022
2013	\$31.09	\$0.025	\$0.016	\$0.026	\$0.012
2014	\$54.36	\$0.023	\$0.015	\$0.024	\$0.011
2015	\$39.61	\$0.020	\$0.014	\$0.021	\$0.010
2016	\$24.24	\$0.017	\$0.013	\$0.020	\$0.009
2017	\$0.00	\$0.015	\$0.011	\$0.018	\$0.008
2018	\$0.00	\$0.013	\$0.010	\$0.014	\$0.007
2019	\$0.00	\$0.011	\$0.007	\$0.012	\$0.005
2020	\$0.00	\$0.009	\$0.006	\$0.009	\$0.004
2021	\$0.00	\$0.005	\$0.004	\$0.006	\$0.003
2022	\$0.00	\$0.003	\$0.003	\$0.003	\$0.001
2023	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000
2024	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000
2025	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000
2026	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000
2027	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000
2028	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000
2029	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000
2030	\$0.00	\$0.000	\$0.000	\$0.000	\$0.000

- Transmission and Distribution: In response to Order 9 Final Decision Docket 08-10-03, the Electric Companies each hired a consultant to update these values. These studies were completed late in 2010. Based on the department's 2010 Decision a weighted average of these studies was used for the 2011 screening. The Companies used a value of approximately \$34.49 per kW to represent avoided distribution and transmission costs. See details on the next page.

<sup>16</sup> ACS Appendix B, page B-7 adjusted for inflation.

Avoided Costs in 2011 Dollars			
Company	Transmission	Distribution	Weighting
CL&P	\$1.25	\$29.74	80%
UI	\$2.54	\$45.96	20%
<b>Electric Screening</b>	<b>\$1.51</b>	<b>\$32.98</b>	

Note that transmission and distribution values are not applied to the savings from the Load Response program based on the Synapse Study's recommendation.<sup>17</sup>

In addition to the electric benefits, the Total Resource BCRs include the following avoided costs (*these are NOT included in the Electric System BCR*):

- **Fossil Fuel Savings:** Fossil fuel avoided costs are calculated for oil, natural gas, and propane. Oil, natural gas and propane avoided costs are from ACS.

Table 4 - 2011 ACS Connecticut Avoided Oil and Propane Energy Costs  
Values are in nominal dollars<sup>18</sup>.

Year	Residential Oil (\$ per Mbtu)	Residential Propane (\$ per Mbtu)	C&I Oil (\$ per Mbtu)
2011	\$17.00	\$25.91	\$14.52
2012	\$19.05	\$28.48	\$16.53
2013	\$20.91	\$31.49	\$18.45
2014	\$23.10	\$34.55	\$20.55
2015	\$25.50	\$37.87	\$22.76
2016	\$27.98	\$41.51	\$24.98
2017	\$30.42	\$45.21	\$27.19
2018	\$31.09	\$46.25	\$27.88
2019	\$31.91	\$47.42	\$28.65
2020	\$32.63	\$48.27	\$29.17
2021	\$33.38	\$49.52	\$29.94
2022	\$34.32	\$50.81	\$30.87
2023	\$34.84	\$51.51	\$31.26
2024	\$35.99	\$52.74	\$32.26
2025	\$37.39	\$54.72	\$33.53
2026	\$38.85	\$56.77	\$34.85
2027	\$40.37	\$58.89	\$36.23
2028	\$41.94	\$61.10	\$37.66
2029	\$43.58	\$63.39	\$39.15
2030	\$45.28	\$65.77	\$40.70

<sup>17</sup> 2009 ACS, page 8-5.

<sup>18</sup> ACS Appendix E, page E-1 adjusted for inflation.

- **Water Savings:** Water is valued at approximately \$0.01 per gallon and was estimated using Tighe and Bond water and sewer data and average Hartford prices of water. All avoided costs in this Plan are expressed in 2011 dollars.
- **Other Non-Resource Benefits:** These are savings that result from reduced maintenance, avoided cost of replacement, etc. They are primarily used when screening CFLs to quantify the additional bulb cost savings that result due to CFLs having long lives, such as the value of avoiding future incandescent bulb purchases.
- **Value of Reduced Emissions:** The emissions avoided costs represent the environmental benefits associated with the reduced emissions of NOx, SOx, CO<sub>2</sub>, and mercury. These represent projected environmental costs such as costs that are not yet internalized. These avoided costs are above and beyond the direct costs (included in the avoided energy costs) associated with complying with emissions regulators. The values shown below are average values per kWh saved and were derived from ACS.

**Table 5 - 2011 Connections Emissions Avoided Costs**  
**Values are in nominal dollars<sup>19</sup>**

<b>Year</b>	<b>Average Emissions Value (\$ per kWh)</b>
2011	\$0.041
2012	\$0.042
2013	\$0.036
2014	\$0.035
2015	\$0.035
2016	\$0.034
2017	\$0.033
2018	\$0.032
2019	\$0.032
2020	\$0.031
2021	\$0.030
2022	\$0.029
2023	\$0.028
2024	\$0.027
2025	\$0.027
2026	\$0.028
2027	\$0.028
2028	\$0.029
2029	\$0.029
2030	\$0.030

<sup>19</sup> ACS Appendix B, page B-7 Annual weighted average and adjusted for inflation.

## Natural Gas Screening

The following avoided costs are used by the Natural Gas Companies when calculating Natural Gas BCRs for the 2011 Programs. Avoided costs used to screen programs are in nominal dollars in accordance with the Department’s March 17, 2010 Final Decision (Docket No. 09-10-03 and 08-10-02).

The values of avoided cost are based on “Avoided Energy Supply Costs in New England: 2009 Final Report”, Synapse Energy Economics, Inc. revised October 2009 (“AESC”). The avoided cost values are values for Southern New England (Connecticut and Rhode Island) average annual avoided costs. The 2011 C&LM Plan’s avoided costs and savings were separated into residential heating, residential water heating, C&I heating, and other C&I values. The avoided costs in AESC include the avoided cost of natural gas and the avoided costs associated with peak-day reduction.

The following table shows statewide gas energy avoided costs that are used in the 2011 BCR calculations.

**Table 6 - 2011 AESC Connecticut Avoided Natural Gas Energy Costs**  
(Values are in nominal dollars<sup>20</sup>)

Year	Residential Natural Gas Heating (\$ per MMBtu)	Residential Natural Gas Hot Water (\$ per MMBtu)	C&I Natural Gas Heating (\$ per MMBtu)	C&I Natural Gas (\$ per MMBtu)
2011	\$14.27	\$11.00	\$11.48	\$9.41
2012	\$15.08	\$11.83	\$12.22	\$10.20
2013	\$15.41	\$12.08	\$12.50	\$10.42
2014	\$15.81	\$12.41	\$12.84	\$10.71
2015	\$16.24	\$12.76	\$13.22	\$11.03
2016	\$16.74	\$13.17	\$13.65	\$11.41
2017	\$17.31	\$13.66	\$14.16	\$11.86
2018	\$17.93	\$14.20	\$14.72	\$12.36
2019	\$18.42	\$14.67	\$15.14	\$12.80
2020	\$18.56	\$14.76	\$15.22	\$12.85
2021	\$18.74	\$14.82	\$15.33	\$12.87
2022	\$19.24	\$15.22	\$15.77	\$13.24
2023	\$19.92	\$15.75	\$16.38	\$13.73
2024	\$20.87	\$16.61	\$17.26	\$14.54
2025	\$21.46	\$17.10	\$17.78	\$15.00
2026	\$22.07	\$17.61	\$18.31	\$15.46
2027	\$22.70	\$18.14	\$18.86	\$15.95
2028	\$23.34	\$18.67	\$19.43	\$16.44
2029	\$24.00	\$19.23	\$20.02	\$16.96
2030	\$24.68	\$19.80	\$20.62	\$17.48

<sup>20</sup> ACS Appendix D, page D-3 adjusted for inflation.

In addition to avoided natural gas costs associated with natural gas savings, certain measures also have water savings associated with them. These measures are limited to the residential sector and include low flow showerheads and aerators. The avoided water savings is calculated and used for the Total Resource Cost test only. The value of water savings is approximately 1.0 cents per gallon and was estimated using Tighe and Bond water and sewer data and average Hartford prices of water. All avoided costs in this Plan are expressed in 2011 dollars.

**Financial Indicators:**

The following financial indicators were used within the net-present value calculation of benefits for both the Utility Cost and Total Resource Cost screening:

**Nominal Discount Rate ("NDR"):** The discount rate is the interest rate used to discount the value of future savings in a standard, present worth economic analysis. A higher rate discounts the present value of future savings more deeply than a lower rate. Thus higher rates result in lower BCRs and lower rates result in higher BCRs. Based on the March 17, 2010 DPUC’s Final decision in Docket No. 08-10-03 and 08-10-02, the Companies’ after-tax cost of capital weighted average (“COC”) was used to calculate the NDR (For electric the weight average of CL&P and UI were used; for gas the weighted average of CNG, SCG and YGS were used). These values were compared to 7 percent and the higher value was used (electric 7.42 percent, gas 8.46 percent). See below for details.

<b>Electric Company</b>	<b>COC</b>	<b>Weighting</b>
CL&P	7.68%	80%
UI	6.38%	20%
<b>Electric Screening</b>	<b>7.42%</b>	
<b>Gas Company</b>	<b>COC</b>	<b>Weighting</b>
CNG	8.60%	31%
SCG	8.85%	31%
YG	8.03%	38%
<b>Gas Screening</b>	<b>8.46%</b>	

**Inflation Rate:** The inflation rate of 2 percent based on the 2009 ACS is used to calculate the avoided cost in nominal dollars.

## CHAPTER SEVEN: IT INITIATIVE (CL&P)

The objective of the C&LM IT Tracking and Reporting Initiative is to develop and implement an improved, automated tracking and reporting system in accordance with the DPUC's directive to develop a comprehensive presentation of tracking data for each C&LM program as part of the annual filings. This initiative is required to meet increasing financial and reporting requirements by the Department such as the SFR. These improvements are also designed to improve the operating efficiency of the CL&P C&LM staff. The project also intends to fulfill the Department's requirement that all tracking entries of C&LM projects should be traceable and cross-referenced to the PSD Manual a detailed comprehensive documentation of all claimed resource costs and savings corresponding to individual C&LM technologies. The project is expected to result in improved accountability and independence in the process of tracking, monitoring and verification of C&LM information.

The IT initiative includes plans to create a central data repository accessible to all C&LM personnel, streamline the current environment, and create the most efficient and consistent business procedures possible. The overall project has several phases. The Initiative project team issued a Request for Information ("RFI") in 2005, inviting vendors to submit their qualifications for implementing the project. Based on the information received, the project team then selected the most qualified vendors and invited them, via a Request for Proposal ("RFP") to submit bids to complete Phase I: Requirements. The various phases of the initiative that have so far been completed or initiated are described below, along with those planned for next year.

### **2006:**

Through the RFP process, a vendor (CGI-AMS) was selected to develop the "Business Requirements Specifications" for the C&LM Tracking and Reporting System. This included workshops with the business users and Northeast Utilities IT personnel. A prioritization of requirements exercise, facilitated by the vendor, resulted in a management decision to designate the development of residential (non-low income) and small business programs code modules as Phase II of the project.

Subsequent to the Business Requirements Specification completed above, an RFP was issued to perform the requirements validation as well as to facilitate design and build components of the system for the Residential programs and SBEA program. The project team evaluated the vendor proposals and selected Bloomfield-based PCC Technologies, to deliver this phase. PCC Technologies reviewed the Business Requirements Specification document, identified gaps, and created the Functional

Requirements Document and the system data model. These activities were used to implement the Design and Build phases of the project. The vendor commenced development of the four code segments of which this phase is comprised: general system design, system administration, residential programs and small business program functionality. Development of the Residential and SBEA system components was essentially completed in 2006 with unit, system integration, and testing to determine user eligibility following immediately afterward in 2007.

**2007:**

Continued progress was made on development and completion of the general system design, system administration, and Residential, and SBEA program functionality. This included the activities of data conversion, testing remediation, and post-production support representing both outside services (vendor-PCC Technologies costs) and internal labor (Northeast Utilities IT and C&LM Department).

Also completed were detailed functional requirements of expansion of the system to include the Limited Income, and C&I programs.

**2008:**

The design, build, and implementation components of the Limited-Income module, including the activities of data conversion, testing remediation, and post-production support representing both outside services (vendor-PCC Technologies costs) and internal labor (NU IT and C&LM) were completed.

Modifications and updates to existing tracking and reporting systems (e.g., C&I's custom tracking system) to accommodate C2 readiness were also completed, as was the conversion of NU standard reports from Crystal to Hyperion.

**2009:**

Creation of an automated year-end roll-over process for the new tracking and reporting system, which currently includes modules for system administration, SBEA and Limited Income, was completed.

A new release was completed that included program expansions of the existing modules for the Residential Room A/C Retirement program, Gas Water Heater program and HES Insulation. The design, functional requirements and testing of a new HES Residential Data Entry Module were initiated and completed.

Additional enhancements to existing modules and systems included:

- replacement of the Excel spreadsheet by integrating HES tier 1 into the CLMTRS system;
- development of a data warehouse; enabling business users to query data and report information;
- development of new functionality for HES 2 (custom measures for existing homes);
- development of new functionality for Residential New Construction;
- identification of possible needs for new functionality for residential HVAC commissioning (QIV Program) (currently a pilot program), and
- continuation of the technological improvements to CLMTRS to allow full integration of current and future functionality via a three-week release implementation schedule.

2009 was also the year in which planning for and designing of a central data warehouse took place. The data warehouse will extract detailed data from C&LM's tracking and reporting systems, and will be used to support ad-hoc requests for data for both internal and external reporting requirements (e.g., program evaluations, DPUC requests, etc.).

The planned facility will also serve to satisfy increasingly complex monthly reporting requirements for both the ISO-NE FCM and the NE-POOL GIS Class III Renewable Credits, which must be implemented at the project level and be able to exclude projects whose measure lives expire over time.

#### **2010:**

Revision of the underlying technology of CLMTRS was undertaken to bring it into line with current industry best-practice standards. Enhancements to existing modules and systems have continued to be made as proposals are reviewed for process improvements.

Additional, enhancements completed or initiated in 2010 have included:

- updates to the existing tracking and reporting system to accommodate reporting for the ARRA, which includes reporting on MMBTU for the HES, SBEA and Energy Opportunities programs as well as multi-fuel reporting capability;

- leads management for Residential programs;
- implementation and testing of the data warehouse;
- custom measures for existing homes and Residential New Construction;
- HES leads and projects involving new technologies, including direct vendor invoicing methods;
- Initiation of residential project tracking requirements;
- SBEA projects involving new technologies, including invoicing improvements;
- on-line enrollment for C&LM programs (e.g., HES and HES-IE);
- Ongoing product support (through three-week release cycles), including production fixes and small system enhancements, and
- user support (as needed).

#### **2011:**

Plans call for continuation of the revision of the underlying CLMTRS technology to bring it into line with current industry best-practice standards. Enhancements to existing modules and systems will also continue to be made as tasks are reviewed for process improvements.

Additional enhancements planned for 2011 include:

- on-Line Enrollment for C&LM programs (SBEA);
- completion of custom measures for existing homes and residential new construction, including new invoicing technology;
- HES-IE projects and invoicing involving new technology;
- a HES-IE forecasting module for Letters of Agreement (LOA);
- New Retail Products developments, including new technology for invoicing;
- reviews and upgrades of large C&I tracking and reporting system capabilities, such as the system's lead log and custom tracking gas projects;
- ongoing product support (through three-week release cycles) of product fixes and small-system enhancements, and
- user support (as needed).

## EXHIBIT I: 2009 PUBLIC COMMENT MATRIX

Public comments and public input addressed by the Companies and the Energy Efficiency Board (EEB) in the process of developing the 2011 Plans.

**Name:** Michael Balinskas

**Organization:** McPhee

**Method/ Date of Contact:** June 9, 2010 Public Input Session

**Request:** Mr. Balinskas requested that the Board consider incentivizing new, energy efficient transformers installed and owned by customers as a way to enhance program offerings beyond other demand side technologies.

**Companies' Position:** Customer-owned energy efficient transformers have historically been eligible for incentives from the Energy Efficiency Fund programs provided that they are more efficient than baseline or code required transformer equipment. Transformer equipment as presented by Mr. Balinskas will be evaluated under current program rules for incentive eligibility. .

**EEB Position:** The EEB notes that distribution transformer manufacturers have continued to develop product lines that exceed current federal minimum efficiency standards established by the US Department of Energy. In addition, NEMA's Premium Efficiency Transformer Program has established new efficiency levels and the Consortium on Energy Efficiency is considering an update to its high-efficiency transformer specification (commonly used by efficiency programs for establishing incentives). As noted by the Companies, energy efficient transformers have been eligible for incentives in the past.

The Board encourages vendors of such products to present their proposed projects to the Companies for consideration as custom measures under the CEEF program rules. In addition, the Board recommends that the Companies review the new NEMA standards and consult with CEE concerning its possible update to transformer standards, as part of an assessment of the appropriateness of establishing prescriptive incentives.



**Name:** Marie McDonald/Jennifer Boyd

**Organization:** CPTV

**Method/ Date of Contact:** June 9, 2010 Public Input Session

**Request:** Connecticut Public Television proposes the production of a ten-part “how to” energy series at a cost of \$526,000. This series will focus on the step-by-step process of “greening” an existing home and incorporating “green” techniques into new home construction. The series will be shot entirely on-location, in a style similar to the popular PBS series *This Old House*. Throughout the series, our focus will be to present projects that emphasize conservation and efficiency in a light, entertaining and easy-to-understand way. These shows will emphasize low-cost ways to create a more energy-efficient home environment, while enhancing the esthetics of the homeowners’ living space.

In addition to step-by-step instruction during each show, vignettes will be created that will air independent of the series. These vignettes will provide additional opportunities for the general public to learn efficiency and conservation techniques in a variety of timeslots. They will also compliment the initiative with a micro web site that will provide additional information on subjects discussed as well as provide DVDs to community groups.

CPTV invited CEEF to become a Connecting Our Communities partner in this energy conservation and efficiency education initiative which would provide the Fund some degree of input over the content. There was also discussion of "scaling" the project to something less than the 10 segments discussed.

(See all documents in the full request at: <http://www.box.net/shared/gmtzztqa04> )

**Companies’ Position:** The Companies believe that the proposal brought forth by CPTV is a good communication medium with a practical approach to addressing a comprehensive educational series on energy efficiency for residential customers. The Companies believe that this series would be inline with their comprehensive and integrated approach to providing fuel-blind energy efficiency and believe the tips and information provided will benefit oil heated customers in addition to electric and natural gas heated customers. However, the scope of the proposal is too large for the audience that the messaging would reach. A much smaller scale effort may have merit and CPTV is encouraged to submit a proposal that is smaller in scale. .

**EEB Position:** The EEB is also supportive of the concept being proposed by CPTV. Such an educational program would complement current CEEF efficiency efforts, particularly those being delivered through Home Energy Solutions and Retail Products Programs. However, the proposed scope is currently beyond the resources available for such activities. The Board would be interested in seeing a reduced scope or a funding request that has other partners providing a large majority of the requested project budget. Finally, the Board would need assurances that a similar series has not already been created by others such as another public television station or by a cable network such as HGTV.

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**Name:** Tom Casey

**Organization:** Climate Partners/Dr. Energy Saver

**Method/ Date of Contact:** June 9, 2010 Public Input Session

**Request:** The Dr. Energy Saver methodology employs a whole house approach. They have set up a training facility in Seymour, CT and can accommodate 30 students at a time. They teach trainees and ready them for green jobs pertaining to how to relieve energy use and cost burdens to residential customers. Their goal is to accomplish this with less subsidization than under the current programs and by doing so create jobs that will not disappear when the funding runs out.

**Companies' Position:** The Companies applaud all entrepreneurs in the energy field.

**EEB Position:** The Board supports all efforts to increase the number of trained "green" professionals delivering quality efficiency services to the existing homes market.

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**Name:** John D. Calandrelli

**Organization:** CT Sierra Club Energy Chair

**Method/ Date of Contact:** June 9, 2010 Public Input Session

**Request:** The CT Sierra Club is on a six month campaign to sign up 2,000 residences for a home energy audit. It does not appear to be in the utility company's interest to market this home energy audit program. Currently, this program, paid for by utility

customers, cost only \$75. And now, the CT Sierra Club has received coupons worth \$25 off that price for the next three months. This is an amazing price for a program that will save customers hundreds of dollars their first year.

We believe the utilities must pursue the All Achievable Cost Effective (A-ACE) strategy; following the directives of Section 51 of Public Act 07-242. These energy efficiency measures are less expensive than generating new energy.

However, for the utilities and residential customers this is not nearly enough. We need to provide financial vehicles for the work needed beyond the home energy audit. Tax incentives, rebates, grants, property assessed clean energy, and lease programs are all pellets in the silver buckshot that's needed in our new energy future. (See the full request at: <http://www.box.net/shared/ey4zazuomx> )

**Companies' Position:** The Companies routinely balance the marketing of the program to match available program funding. The Companies have also actively promoted tax credits and financing tools as part of the Home Energy Solutions Program, including the recent addition of a financing offering to the program. Additionally, the Companies worked with the State Office of Policy and Management on a grant made available from the American Recovery and Reinvestment Act. This grant allows customers who heat their homes with oil or propane to receive the same services at the same cost as those who heat with electricity or natural gas.

**EEB Position:** Unlike many other utility programs, the Home Energy Solutions Program has never been just an "audit" program. It has provided substantial efficiency services at the time of the initial assessment visit: free CFLs, blower door directed air sealing, duct sealing using a duct blaster, water conservation measures, etc. HES also promotes follow-on measures such as insulation and efficient appliances and HVAC equipment through rebates.

The EEB agrees with the Sierra Club's assertion of the need for effective financial vehicles to promote home energy efficiency and made such development a major priority during the past year. As a result, the HES program has expanded its support of customer efficiency efforts through low interest loans and an expanded incentive offering that promotes the packaging of measures to achieve deeper and more comprehensive energy savings. This continued and increased emphasis on comprehensive savings, supported in part by reduced interest financing, will be a key focus of the Program in 2011.

**Name:** Bryan Garcia

**Organization:** Yale Center for Business and the Environment

**Method/ Date of Contact:** June 9, 2010 Public Input Session

**Request:** On behalf of the Yale Center for Business and the Environment, and the current research and education interests we have in residential clean energy and energy efficiency, we want to make a data request from the Connecticut Energy Efficiency Fund. To support our ongoing research on the role of communities in advancing our nation's transition to a clean energy economy, we request that the Connecticut Energy Efficiency Fund provide us with the following information on the Home Energy Solutions program since its inception:

**Cities and Towns** - the number of assessments completed by month for each city and town in Connecticut - see Appendix IV;

**Follow-On Recommendations Undertake** - data on the number of households by community that had a Home Energy Solutions assessment and followed up on the recommendations made by the contractor;

**Program Descriptions** - any detailed information on the program including changes over time and dates the changes were put into effect (i.e. free versus \$75 co-pay versus other?);

**Marketing Programs** - any specific information on marketing of the program, including but not limited to the Connecticut Energy Efficient Communities program (i.e. pilot towns, commitments required for town participation, and date towns began participation); and

**Contractors** - number of approved contractors over time.

With this information, we will be able to discern if there is a positive spill-over effect from the Connecticut Clean Energy Communities program on households taking action on the Home Energy Solutions program. In our efforts to further understand these potential spill-over effects, we will be requesting the same data of the Connecticut Clean Energy Fund as it applies to their Residential Solar Rebate and Leasing Programs. (See the full request at: <http://www.box.net/shared/l4nkqbh5c8> )

**Companies' Position:** The Companies are eager to support academic research in the energy field. We will endeavor to make the data requested available to the extent it is practical.

**EEB Position:** The EEB recommends that the Companies fulfill the request from the Yale Center for Business and the Environment in a timely manner and to include the Board in the distribution of their response. The resulting research findings from the Center's research should be of great value in ascertaining the overall impact of the CEEF programs. These research findings and Yale's analysis should be provided to the EEB.

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**Name:** Roger Smith

**Organization:** Clean Water Action

**Method/ Date of Contact:** June 9, 2010 Public Input Session

**Request:**

**1. Reform Municipal programs**

- A. Financing programs for municipalities should be dramatically changed
- B. Provide Low/No-Cost Energy Audits for Municipalities
- C. Create State Energy Saving "Performance Contracting" program for towns. When done properly, energy savings performance contracting can solve the issue of upfront costs associated with building retrofits and the lack of municipal staff time and expertise. A standardized state-approved contract and with competitively selected, pre-approved firms would virtually eliminate the financial risk to towns for energy upgrades.

**2. Improve Community-based Outreach**

- A. Effective outreach is critically important now as CEEF is not on track to reach its goals for HES, the low-income programs or small business programs.
- B. What is missing is any investment from CEEF in grassroots *infrastructure*, meaning help for more local groups become more effective in more towns. Please fund *somebody* to fill this role and provide volunteer groups with support and guidance and make the eeCommunities program more than an empty shell.

(See the full request at: <http://www.box.net/shared/a49b8yg8d7> )

### **Companies' Position:**

1) Every municipality is different, with different municipal regulations dealing with contracts. The Companies offer 0% financing for qualified towns, technical assistance and expertise to apply the right solution, including performance contracting, for each town.

2) Mr. Smith's information on the program's goal achievement is not entirely correct. The Companies are evolving the eeCommunities program as part of the 2011 plan. This evolution will include a variety of additional resources, each one tailored to a particular Town as appropriate.

### **EEB Position:**

**Municipal Programs** - The EEB feels it is important to recognize that the EEF programs have provided considerable services to municipalities with accompanying public benefits since the Fund's conception. The effectiveness of the EEF programs in serving its customers and communities has been of paramount importance to the Board during its ongoing work with the Companies to continuously improve the programs. Nonetheless, the Board concurs with many of the general issues raised by CWA. With respect to financing, the Board agrees that municipalities are appropriate candidates for energy service performance contracting and proposes to develop a strategy for promoting ESPCs among all public, educational and non-profit entities, largely in line with CWA's recommendations. However, the Board cautions that the past record for such financing in Connecticut has been mixed; therefore, the strategy and the CEEF programs will need to ensure effective quality control and the protection of public investments. Also, the Board believes that the Small Business program has made and will continue to make substantial progress in encouraging comprehensiveness in energy efficiency, and provides the most effective vehicle for meeting the needs of small business-sized customers. Finally, the Board anticipates that the Business Sustainability Challenge and the O&M/Retro-Commissioning services will continue to evolve to provide comprehensive energy management solutions to municipalities and other customers and will be more effective than audit programs.

**Community-Based Outreach and Coordination** - The EEB is aware of some concerns, as well as successes, regarding the Companies' community outreach efforts through eeCommunities and as they relate to increasing Home Energy Solutions (HES) Program activity in interested communities. The Board takes very seriously the comments of local organization and representatives in the CEEF community-oriented programs is working with the Companies to enhance the services and resources that eeCommunities will provide in 2011. We are also working with the HES vendors to

better understand how all parties can better leverage community interest in energy efficiency and translate it into increased HES Program activity. These improvements will be communicated in the 2011 Plan and in program documents, including a Guide to CEEF program services available in communities.

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**Name:** John Rathbun/Noel Kelly

**Organization:** Northeast Combined Heat & Power Initiative

**Method/ Date of Contact:** June 9, 2010 Public Input Session

**Request:** Connecticut has an opportunity to make the homes of its citizens more energy efficient, save homeowners thousands of dollars on rising energy bills, reduce emissions associated with the residential sector, and create jobs by creating incentives to promote the installation of residential CHP systems. Micro-combined heat and power (micro-CHP) technologies, which are increasingly used in Europe and Japan, can greatly improve energy efficiency in a majority of US homes while creating thousands of new green energy jobs across America.

Based upon EIA 2010 Annual Energy Outlook data, if one-half of the electricity delivered for residential consumption could be replaced by electricity produced on-site by micro-CHP, total US energy consumption can be reduced by approximately five percent or five quadrillion Btus due to electricity related losses that are avoided. This represents both an enormous efficiency opportunity and cost savings.

We urge you to support the inclusion of incentives for Micro-CHP as it will greatly improve residential energy efficiency and help establish further micro-CHP manufacturing in the US. Micro-CHP, which recaptures heat created in the electrical generation process and uses it to heat the home, currently, receives no incentives.

The incentive would result in the immediate and long-term creation of jobs across many industries, including the manufacturing, sales, installation, maintenance, and service of micro-CHP systems in Connecticut.

The incentive would encourage owners of central heating systems to consider adding cogeneration to their homes, vastly decreasing fuel use and harmful air pollutants.

**Companies' Position:** Company staff actively promotes CHP installations in the proper application. Furthermore, the Companies also promote that all cost effective electric and thermal energy efficiency should be implemented prior to sizing and installing any CHP to ensure that an optimum sized unit is installed and the CHP displaces efficient energy use versus inefficient customer load. CHP incentives have been available as part of Public Act 05-1 and may be available from qualified technologies as part of the Energy Efficiency Partners program. CHP has not historically been funded as an eligible measure as part of the CEEF incentive strategy.

**EEB Position:** The EEB concurs with the position set forward and implemented by the Companies regarding commercial and larger multifamily CHP installations and the Board believes that similar policies should be followed for all CHP installations regardless of scale (i.e., residential CHP). EEF funds should be used to support efficiency measures in projects involving CHP to insure proper system sizing and to reduce inefficient energy use. As funding for CHP installations is available through grants overseen by the DPUC, CEEF funding is not provided for this technology.

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**Name:** Kathy Fay/ Henry Dynia

**Organization:** Neighborhood Housing Services of New Haven

**Method/ Date of Contact:** June 9, 2010 Public Input Session

**Request:** They support the use and incentivization of the Micro-combined heat and power systems for residential application after having seen them at a conference and having installed a unit for testing in their laboratory.

**Companies' Position:** Company staff actively promotes CHP installations in the proper application. Furthermore, the Companies also promote that all cost effective electric and thermal energy efficiency should be implemented prior to sizing and installing any CHP to ensure that an optimum sized unit is installed and the CHP displaces efficient energy use versus inefficient customer load. CHP incentives have been available as part of Public Act 05-1 and may be available from qualified technologies as part of the Energy Efficiency Partners program. CHP has not historically been funded as an eligible measure as part of the CEEF incentive strategy.

**EEB Position:** The EEB concurs with the position set forward and implemented by the Companies regarding commercial and larger multifamily CHP installations and the Board believes that similar policies should be followed for all CHP installations

regardless of scale. CEEF funds should be used to support efficiency measures in projects involving CHP to insure proper system sizing and to reduce inefficient energy use. As funding for CHP installations is available through grants overseen by the DPUC, CEEF funding is not provided for this technology.

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**Name:** Andy Bauer

**Organization:** Chair, Portland Clean Energy Task Force

**Method/ Date of Contact:** June 9, 2010 Public Input Session

**Request:** The CEEF can and will increase the success of its programs by partnering with groups that are skilled in community outreach.

I know that Clean Water Action has made proposals to this board in the past (for the record, I volunteer and donate to CWA) for a staff person who can work with communities to promote energy efficiency. Now that the CEEF has a baseline for what has been spent and what has been returned, I'll request once again, in the strongest terms, that the CEEF fund a staff person for a non-profit organization with a proven track record for community outreach promoting energy efficiency and clean energy programs.

With Rebecca Meyer's help we enrolled 124 homes for the Home Energy Solutions program in about 8 months. This is what is possible when you provide support to a trained grassroots activist. I feel CWA is positioned to provide this support quickly to a great many communities.

Second, I would very much encourage the CEEF to explore financing for large scale municipal projects. The existing on bill financing mechanisms are great for easy projects like lighting. Larger pools of funds would help towns get started on big ticket items.

(See the full request at: <http://www.box.net/shared/63e4mtrr47> )

**Companies' Position:** The Companies are evolving the eeCommunities program as part of the 2011 plan. This evolution will include a variety of additional resources, each one tailored to a particular Town as appropriate. The Companies offer 0% financing for qualified towns, technical assistance and expertise to apply the right solution, including performance contracting, for each town.

**EEB Position:** The EEB is aware of some of the challenges, as well as successes, that have been encountered in the Companies' community outreach efforts. The Board and its consultants are working to enhance the services and resources that the eeCommunities Program will offer in 2011. In addition, the Board is working on a strategy to help municipalities to make more effective use of energy service performance contracting. These improvements will be communicated in the 2011 Plan and in program documents, including a Guide to CEEF program services available in communities.

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**Name:** Lee Hebert

**Organization:** Boston Power Supply

**Method/ Date of Contact:** June 9, 2010 Public Input Session

**Request:** Mr. Hebert has been engaged in bringing electric storage technology to the market since 2001 and notes that places like China and California are well ahead of Connecticut. He notes that adding storage to renewable energy systems greatly increases their viability even without deployment of the Smart Grid. He claims that storage helps to achieve 100% efficiency by allowing existing sources to meet peak loads without additional, costly construction.

**Companies' Position:** Boston Power's technology has been presented to the PWG and the EEB in the past. Mr. Hebert's technology is limited to demand reduction and has not been proven to be cost effective. This technology would be more appropriately vetted through the DPUC Electric Efficiency Partners program.

**EEB Position:** The Board believes that the electric storage technology is most applicable under the Connecticut Electric Efficiency Partners program, administered by the DPUC. EEP was established under Section 94 of Public Act No. 07-242 to expressly promote reliable and cost-effective peak reduction measures. The Department has developed an efficient project proposal review process to determine eligible technologies measures and incentives, and accompanying criteria for certifying EEP partners.

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**Name:** Jonathan Gorham, Chairman

**Organization:** Woodbridge Clean Energy Initiative Task Force.

**Method/ Date of Contact:** Public Input Session June 9,2010

**Request:** The Home Energy Solutions (HES) program is a nationally recognized, analysis and retrofit program that can get people moving down a path towards a cleaner energy future. Using volunteer labor that resides in the Clean Energy Communities task forces is the secret ingredient that can make this dream a reality.

Last fall the town clean energy chairs of Bethany (Mike Okrent) and Orange (Ron Novick) combined forces with us in Woodbridge in a campaign. "NegaWatt Savings 350". We tapped into the trust, goodwill and the grass roots energy and enthusiasm of volunteers of our respective task forces. In doing our marketing we discovered people had two recurring questions:

1. What is the Home Energy Solutions program?
2. What do people think about it?

In February 2010, two private sector companies, Competitive Resources Inc. and my company, Green Media Ventures produced two educational videos to answer these two essential questions. These videos reside at: <http://r.www.hesprogram.com/video-listinss/>.

We are hoping that the EEB will support and encourage collaborations among and between various HES vendors, town task forces and private media producers. Public-private partnerships can harness the creative energies and outreach potential that the network of 100 CT Clean Energy Communities represents. Our state and country need to move away from policies that foster "Business As Usual" programs and lifestyles. By working in collaboration with town task forces and the private sector, the utilities can meet the energy conservation demand and savings goals set by regulatory agencies. We encourage other town clean energy task forces to learn from the successes of previous HES marketing campaigns. (See the full request at: <http://www.box.net/shared/p6d0os9jd9> )

**Companies' Position:** We applaud grass roots efforts to engage communities to educate and motivate them to take action to improve the energy efficiency of their homes and businesses. While we appreciate the efforts to enroll residents in the HES program, we also want to ensure that a comprehensive approach that includes businesses and lost opportunities in the residential market are addressed as well and

encourage interested communities to engage interested parties along with the Companies to ensure that a complete and comprehensive array of Energy Efficiency Fund programs are marketed and explained to interested residents.

**EEB Position:** The EEB generally concurs with the Companies' position. However, the Board is continuing to review the guidelines established by the Companies that govern HES vendor interactions with municipalities and associated Clean Energy Task Forces. These guidelines must strike the right balance of properly positioning the full array of Company and CEEF services available to municipalities against the ability to leverage vendors' interests to actively promote their efficiency services in these same cities and towns and to partner with similarly interested stakeholders.

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**Name:** Theresa Lavoie

**Organization:** Competitive Resources Inc.

**Method/ Date of Contact:** June 8, 2010 Letter to Public Input Session

**Request:** We request that future CEEF residential programs be designed as fuel blind. This would allow all CT electric customers of CLP and UI, regardless of heating fuel, to be provided CEEF program services and not be discriminated against by being charged higher co-pays to participate.

In November 2009, the leveraging of dollars from the CT Office of Policy and Management Clean Tune and Test program afforded the \$300 copay for oil heat customers to be discounted to the \$75 level already being charged to natural gas heat and all electric customers. When that funding ended, the Department of Public Utility Control (DPUC) authorized the use of CEEF funds to continue the availability of the \$75 copay for oil until the American Recovery and Reinvestment Act (ARRA) funds became available in November 2009. We encourage the EEB and the DPUC to continue this trend going forward.

The Wallingford Electric Division (WED), who runs a similar residential program, also used ARRA funds to provide the services to their oil heat customers, eliminating the \$300 co-pay. The WED Public Utility Commission recently authorized the use of funds from electric rates to reduce that copay for oil heat customers to \$50. CRI believes this trend is the appropriate direction for future energy efficiency programs in CT and would encourage this for CEEF programs going forward.

We realize that the decision to make residential programs fuel blind may require a change in cost benefit testing used for the HES program, but the necessary data is readily available and comparisons can be easily derived.

Lastly, as the State Legislature has, once again, made the poor decision to raid the CEEF funds, the EEB will be forced to make tough decisions about program cuts and what services to ramp down. We encourage the Board to reach out to the vendor population for input and potential impacts. The Northeast Energy Efficiency Council, NEEC, may be a valuable resource to the EEB in the coordination of this effort as their members consist of both C&I and residential vendors performing work for both UI and CL&P. (See the full request at: <http://www.box.net/shared/xhqmee88xe> )

**Companies' Position:** The Companies support program activities that benefit our customers, including limited use of electric ratepayer funds for non-electric measures. As Ms. Lavoie notes, legislatively mandated reductions in electric energy efficiency funds limits the Companies' ability to provide program benefits to consumers who do not contribute equitably to the pool of funds that support the programs.

**EEB Position:** The Board supports the development and delivery of multi-fuel and fuel-integrated programs as evidenced by the programs it has supported in the Plans. Specifically for HES, the Board has supported a program approach focused on achieving energy savings from multiple fuels for Connecticut customers. These efforts have included funding oil measures with electric ratepayer funding to some extent. There are some practical and regulatory limits regarding the level of electric funding that can be used to support oil measures, and the Board will continue to review and consider options to achieve the appropriate balance. In addition, the Board continues to recommend dedicated oil funding through the legislative process or from the oil industry to support oil measures in home.

(Regarding the: NEEC offer to collaborate): The Board relies substantially on its sub-committees to fully explore opportunities for improving CEEF programs effectiveness. As a result, the Board has reviewed its committee processes to ensure effective public access and participation and strongly encourages NEEC and other parties to participate in the Board's Residential and Commercial/Industrial Committees.

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**Name:** Natalie Hildt, Manager of Public Policy Outreach

**Organization:** Northeast Energy Efficiency Partnerships (NEEP)

**Method/ Date of Contact:** Letter of July 15th

**Request:** These comments are offered by NEEP staff and do not necessarily represent the view of NEEP's Board of Directors, sponsors or underwriters.

We understand that some at the DPUC have expressed concern that the All Cost-Effective Achievable scenario would increase costs for non-participants while decreasing costs for program participants.

While this may be true in the short-run NEEP urges the Department to look to neighboring states on the issue of bill impacts. With significantly increased investments in efficiency, overall energy costs would likely decline with substantial, permanent reductions in the load curve.

Where analysis has been done on impact scenarios from increased surcharges to build efficiency funds in other states - the conclusion has been that any rate impacts would be nominal compared to the significant savings realized through the capture of all cost-effective energy efficiency. The so-called Demand Reduction Induced Price Effect, or "DRIFE" has the potential to drive energy costs down for participants and non-participants alike.

In any event, it now appears that these vital programs may soon be short-changed by more than \$28 million a year, with ratepayer money being siphoned off for years to come. This administrative move would no doubt have devastating effects on the integrity of the programs, on the commercial and residential customers who will not be able to rely on them, and on the broader economic, environmental and electric system objectives of the state.

Under the looming reality of efficiency programs with a third less funding beginning in 2012, the state and program administrators will need to get even more creative to wring increased kWh and therm savings out of every ratepayer dollar invested in efficiency.

NEEP again stresses the importance of leveraging the utility-run programs with complementary state energy policies. In addition to offering traditional audit and incentive programs, we believe that it is entirely appropriate for ratepayer dollars to be used to advance building energy codes, to research and see adopted new appliance efficiency standards, to educate customers about behaviors and maintenance that will save them energy, and engage in upstream market transformation initiatives.

Codes and standards can and should work hand-in-hand with ratepayer programs to "lock in" those savings and continue the upward cycle of development of energy

efficient technologies and practices. The state's utility companies are uniquely qualified and positioned to deliver services such as building energy code training on measurement and compliance to building professionals, and should be allowed attribution of the savings they help deliver.

Utilities should also be involved in advancing appliance efficiency standards. As the experts in building energy solutions for residential and commercial customers, it makes sense that utilities should be involved in developing such a program for the state. Financing options, including Property Assessed Clean Energy (PACE) programs funded through municipal bonds or other means, as well as low-interest financing options, can provide critical leverage to incentive-based programs. But they cannot stand alone, and must be carefully crafted to protect all involved from undue risk.

Strengthening building codes and appliance standards, building energy rating and disclosure, operation and maintenance training, consumer education, market transformation efforts and new financing options are some of the tools that can help make typical incentive programs go further to help Connecticut save energy.

Funding concerns notwithstanding, Connecticut and the region are entering a new era in energy efficiency. Many of the easier measures have been already used. Standard incandescent lamps are soon to become heavily impacted by the Energy Independence and Security Act of 2007 (EISA) federal minimum efficiency standard, and compact fluorescents will thus become the baseline technology, driving savvy states and program administrators to recognize them as a stepping stone on the increasingly short path to solid state lighting.

State policymakers have indicated an interest in going deeper with savings, but deeper is not cheaper. The EEB and the DPUC will have to keep their eyes on total portfolio savings and the mandate to go after all cost-effective efficiency, not just the opportunities with the most favorable Total Resource Cost (TRC) test ratio. Indeed this mandate, by definition, calls for benefit-cost ratios approaching 1.0 and thus allows increased costs per unit of energy saved.

In addition to thinking differently about the regulatory framework through elements such as cost-effectiveness screening, NEEP submits that evolving the programs to address market changes and new focus points will facilitate deeper savings and prepare for the next generation of technologies to deliver future energy savings. These suggestions include:

Upstream Market Focus

Whole Building Focus, Including O&M  
Target Consumer Electronics  
Residential Solid State Lighting  
Residential HVAC and Water Heating  
Multifamily Housing Programs  
Commercial and Industrial Lighting

In the coming years, the state and program administrators will be asked to do more with less. This is why new, creative and holistic thinking is essential. The same stand-by programs will not continue to deliver the same levels of savings. New technologies will need to be explored and integrated into whole-building programs. Efficiency starts with smart operation and maintenance, weatherization programs and customer education.

Programs also need to work hand-in-hand with other public policies like building energy codes, appliance efficiency standards, and building energy performance labeling and disclosure. This will help maximize savings, minimize cost and harness market forces to the benefit of the entire state and the region.

The state should also support innovative ways for the program administrators to help customers realize savings. This may be through access to low-interest financing, upstream market work, or meter data-driven informed choices to help customers operate their buildings more effectively. (See the full request at: <http://www.box.net/shared/9ckzth152v> )

**Companies' Position:** We appreciate the perspective that regional organizations, such as NEEP can provide. We agree with NEEP that energy efficiency is the cornerstone of State energy policy and needs to be supported appropriately. However, we caution policy makers that increased codes and standards or new financing strategies, are complimentary tactics to CEEF's core energy efficiency initiatives, not alternative approaches. Rather these strategies will not provide their promised benefits in the absence of considerable efforts to ensure their success and effective coordination with the CEEF core programs.

**EEB Position:** The Board shares NEEP's concern that adequate funding is needed to help customers reduce their energy bills and to respond to customer interest in increasing their energy efficiency. The Board is also concerned that legislative actions to reduce available funding will make it even harder for Connecticut customers to reduce their high energy costs.

The Board supports additional analysis of bill impacts as well as rate impacts, and is conducting additional analysis with the Companies.

The EEB agrees that ratepayer dollars should be used to support a variety of codes and standards activities, including accelerated adoption, to the extent that savings can be estimated and that attribution of the Companies' contribution to these efforts can be determined. The Board believes that these codes and standards efforts should be an integral component in the planning and implementation of many of the Companies' efficiency programs. The Companies should coordinate these efforts with NEEP and with other program administrators and stakeholders in the region.

The EEB also supports many of the specific program elements and technologies that NEEP proposes, most of which have been the priorities of its Residential and C&I Committees during the past several years, and is working with the Companies to encourage their implementation in 2011. These program changes and improvements will be communicated in the 2011 Plan and in CEEF program documents.

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**Name:** Dale Hahs

**Organization:** Energy Services Coalition

**Method/ Date of Contact:** email of June 9, 2010.

**Request:** The Energy Services Coalition is a national public/private partnership of individuals dedicated to the promotion of guaranteed energy savings performance contracting. This concept originated well over 25 years ago and provides substantial benefits using dollars that were budgeted to pay utility bills. Said another way, guaranteed energy savings performance contracting is a redirection of a portion of utility bill dollars to:

- modernize infrastructure,
- reduce deferred maintenance lists and therefore emergency repairs,
- reduce energy consumption,
- provide real jobs and
- fulfill many of the goals of environmental stewardship.

Policymakers nationwide have been faced with aging facilities and infrastructure and limited resources to manage the concern. During this economic downturn, there just simply aren't enough capital funds to make the necessary repairs, updates and

modifications so drastically needed. Here lies a significant opportunity to resolve years of unfulfilled need and use the effort to get people back to work.

The solution is right at your fingertips. An entire industry of private sector organizations known as energy services companies (ESCOs) stand at the ready to literally guarantee the performance and paybacks they offer through Guaranteed Energy Savings Performance Contracting (GESPC). Policymakers and constituents alike can benefit with the very dollars that would have been used to pay for the consumption of water and energy from outdated and technologically inferior systems.

Today, guaranteed energy savings performance contracts include not only buildings but are used to retrofit traffic signals and street lights, modernize water and wastewater systems, capture landfill gases and use them for onsite energy production and to implement renewables like photovoltaic technologies and wind.

The Federal Department of Energy funded the Energy Services Coalition to bring together the expertise of its members both from the private and public sectors along with the National Association of Energy Services Companies, the National Association of State Energy Officials and the National Council of State Legislators to assemble and hone the best practices tools and concepts for the programmatic design of guaranteed energy savings performance contracting.

I'm pleased to share with you that those tools are readily available along with the technical assistance support to pave the way for implementation. So complete is the plan that we've coined it "A Program in a Box".

Should you elect to invest in the benefits of Guaranteed Energy Savings Performance Contracting to assist in the economic recovery, energy efficiently and environmental stewardship the Energy Services Coalition stands at the ready to provide the resources to see that you achieve programmatic success. (See the full request at: <http://www.box.net/shared/y65ybk870> )

**Companies' Position:** The Companies appreciate the value of performance contracting in the correct application. We have provided some of the numerous performance contracting tools available to our customers and have worked with vendors that have provided performance contracting to our customers. We welcome the addition of these tools to our repertoire.

**EEB Position:** The Board agrees that energy service performance contracting offers substantial potential in benefitting the customers of the CEEF programs. As a result,

the Board proposes to develop a strategy for promoting ESPCs among all public, educational, non-profit entities and commercial business and appropriately integrating ESPCs into the CEEF programs. However, the Board notes that the past record for such arrangements in Connecticut has been mixed; therefore, the strategy and the resulting CEEF program activities will need to ensure effective quality control and the protection of public investments. The Board looks forward to working with the Energy Services Coalition and other interested parties in expanding the reach, benefits and cost-effectiveness of the CEEF programs through ESPCs.

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**Name:** Jason Brooks

**Organization:**

**Method/ Date of Contact:** Email of June 7, 2010

**Request:** I would like to suggest that some changes be made to the HES program.

1. HES should add to their list of program options the ability to insulate a home using bio based spray foam for attics, walls (drilling holes and filling walls), and basements.
2. HES should install attic fans when they are not found
3. HES should seal recessed lights when attics are open to this being a possibility.

EEF should advertise on local channels and newspapers that this is something everyone should do and send a note in with utility bills every quarter. (see the full request at: <http://www.box.net/shared/1ze60n33t9> )

**Companies' Position:** The Companies work with the various stakeholders to develop program parameters that can work in conjunction with market actors. The current incentives are flexible enough to incent bio based insulations. The HES vendors have developed various approaches to sealing recessed lighting where possible. The Companies appreciate the suggestion of an attic fan incentive and will investigate the cost- effectiveness of such an incentive.

The market of the program varied based on actual participation vs. budgeted participation and the marketing is adjusted accordingly. We appreciate the input of Mr. Brooks.

**EEB Position:** The EEB's Residential Committee is continually seeking ways to improve the effectiveness of the CEEF programs for residences through innovative efficiency measures and practices. The Board appreciates the suggestions made by Mr. Brooks and will direct its consultants to work the Companies to assess the appropriateness of the specific measures suggested.

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**Name:** Caryn Converse

**Organization:** West Haven Energy Commission

**Method/ Date of Contact:** Email of June 8, 2010

**Request:** I want to share my observations of the recent "Town Hall" meeting held in West Haven on May 13th. Content-wise I had other expectations - because I was dismayed that the presentation was more of a PR event for UI than for a true focus on energy efficiency and programs available....

As a member of the West Haven Energy Commission, I was offended and think Mr. Vallilo crossed a line. Our Energy Commission is focused on energy conservation and efficiency first, but the Commission was also created to explore clean energy sources and to help reduce our City's carbon footprint. Part and parcel to that has been encouraging residents and businesses to sign up for the 'clean energy option' on their electricity bills, as part of the State's 20% by 2010 Campaign. As one of my fellow members lamented after the meeting, any resident in attendance would walk away from that meeting with the thought that clean energy was too expensive and not worthwhile.

With respect to energy conservation and efficiency, the topic was so scantily addressed that, toward the end of the meeting, I made a point of asking the question (for the sake of the attendees): What is best way for residents to learn about the various energy-saving programs that are available?

Finally, and a bit separately, it would seem in the best interests of all, given your organization's objectives, that UI collaborate with our Energy Commission on areas of mutual interest and concern.(See the request at: <http://www.box.net/shared/1fjgulsctr> )

**Companies' Position:** The "Town Hall" meeting referred to by Ms. Converse was a UI planned and sponsored event, designed to communicate information that UI customers would find useful about a variety of topics including energy efficiency.

UI is committed to working with the energy commissions in our service territory through the eeCommunities effort.

**EEB Position:** The EEB is aware of some of the challenges, and successes, that the Companies have encountered in working with an ever increasing number of interested communities and their associated energy task forces. The Board is committed to ensuring that the CEEF programs are responsive and of benefit to Connecticut's communities, and encourages community groups and commissions to continue to bring their concerns and ideas for the CEEF programs at the EEB meetings. The EEB's consultants are working with the Companies to enhance the resources and services that will be made available through the eeCommunities Program in 2011. These improvements will be communicated in the 2011 Plan and in program documents, including a Guide to CEEF program services available in communities.

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**Name:** Thomas Long, Program Manager

**Organization:** The Workplace, Inc.

**Method/ Date of Contact:** Meeting of September 9, 2009

**Request:** Mr. Long described the regional workforce set up in response to the mortgage crisis to provide job training in order to soften the effect of loan defaults complicated by job losses. They seek to aid people by connecting these borrowers to job opportunities and also to lower the cost of homeownership through use of programs such as those offering energy conservation services. They have been in operation for nine months and have provided career coaching to 722 people of which 48% are employed. They are working with such organizations as the Connecticut Housing Finance Authority, Connecticut Department of Banking, HUD, United Way and others.

They are looking at careers in the energy field as one potential route to employment for those affected and would like to explore closer ties with the EEF. (His full presentation is at <http://www.box.net/shared/7lp3enxylI> )

**Companies' Position:** The Companies have developed a good relationship with the workplace and has looked for ways to place their trainees in energy positions.

**EEB Position:** The EEB encourages efforts to leverage CEEF Program's to reduce home owners' energy burdens to help reduce the likelihood of foreclosure. Similarly,

the Board supports efforts by both the Companies and other parties to grow green jobs in Connecticut to meet the increasing demand for efficiency services and to provide individuals with meaningful, well paying employment.

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**Name:** Robert Pincus

**Organization:** EShield

**Method/ Date of Contact:** Email of November 15, 2009

**Request:** Consideration of his radiant barrier product.

**Companies' Position:** The Companies require additional information to evaluate the product in question.

**EEB Position:** The EEB has an established roadmap process for reviewing new energy efficiency measures for possible inclusion into the CEEF programs. Once additional documentation is provided, the EEB expects that the RD&D Policy Working Group will assess whether CEEF funds should support this technology.

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**Name:** Jonathan Gorham

**Organization:** Gorham Associates

**Method/ Date of Contact:** January 13, 2010 EEB Meeting Presentation

**Request:** Consideration of eligibility for a new interior storm window for retrofit application he has developed that has already been approved by NYSERDA and NSTAR and noted he has also met with UI personnel who, while they have some concerns, are trying it out. He described the system (see [www.windowtherm.com](http://www.windowtherm.com)) and provided information on the advantages it has over competitors. He projects its cost to be \$7-\$10 per square foot and noted the actual sizing and measurement is a costly part of the product/service.

**Companies' Position:** This technology is currently being evaluated by the RD&D Policy Working Group. The evaluation status is "Tabled" pending proposer's submission of additional information.

**EEB Position:** The EEB has an established roadmap process for reviewing new energy efficiency measures for possible inclusion into the CEEF programs. The EEB supports the Companies' approach, which is consistent with the roadmap process, and requests that the proposer submit any additional information required by the RD&D Policy Working Group.

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**Name:** Martin Klouse

**Organization:** Interior Window Systems

**Method/ Date of Contact:** January 13, 2010 EEB Meeting Presentation

**Request:** Mr. Klouse noted his interior storm window uses small magnets in conjunction with plexiglas that allows it to snap into place. He said it is currently undergoing the patent process but does not employ a hermetic seal yet adequately adds an insulated layer while not allowing the fogging of the inner surfaces of the windows. He noted that schools are particularly good candidates for retrofit with this product and he is seeking incentives of approximately 20% to offset the cost. While not an inexpensive insert, because it needs custom trim and magnets, it does come with a lifetime guarantee and has an attractive appearance. He noted in modeling of the Trumbull school, it shows an 18% reduction of oil use.

**Companies' Position:** This technology is currently being evaluated by the RD&D Policy Working Group. The evaluation status is "Tabled" pending proposer's submission of additional information.

**EEB Position:** The EEB has an established roadmap process for reviewing new energy efficiency measures for possible inclusion into the CEEF programs. The EEB supports the Companies' approach, which is consistent with the roadmap process, and requests that the proposer submit any additional information required by the RD&D Policy Working Group.

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**Name:** Eric Gribin, Regional Coordinator, Solar Energy Initiative

**Organization:** Norwalk Community College

**Method/ Date of Contact:** May 12, 2010 EEB Meeting Presentation

**Request:** Mr. Gribin addressed the Board noting that he has been active in The US Department of Labor SOAR (Sustainable Operations: Alternative and Renewable Energy Initiative) grant for workforce development in Connecticut which will provide funding for two years. He wished to introduce himself to the Board to explore opportunities in which NCC and the Board might work together in a long-term partnership. He hopes those who are in the course of study in Energy Efficiency and Building Sciences (the only one in the state) may have access to internship possibilities and later to more permanent jobs.

**Companies' Position:** The Companies have begun working with Mr. Gribin to explore opportunities in the energy field for his graduates.

**EEB Position:** The EEB supports the Companies' continued discussions with Mr. Gribin and Norwalk Community College. In addition, the Board would be interested in further dialogues and ideas on how the CEEF programs can best develop and utilize skilled energy efficiency professionals in support of Connecticut's energy efficiency goals.

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**Name:** David Pope

**Organization:** Righter Group

**Method/ Date of Contact:** Contact at the July 14, 2010 C&I Meeting

**Request:** Mr. Pope represents the ISI/General Electric Energy Avenger, the first voltage reduction technology that reduces the energy consumed by HID lighting by as much as 35% while using existing ballasts and lamps and maintaining IES lighting levels. The Energy Avenger is manufactured by GE and has been vetted with Emerson Power to verify energy savings. He requests that the Fund include this technology as being eligible for deployment under the existing programs.

**Companies' Position:** The EEB has an established roadmap process for reviewing new energy efficiency measures for possible inclusion into the CEEF programs. Consistent with that process, this technology is currently being evaluated by the RD&D Policy Working Group. The evaluation status is "Tabled" pending proposer's submission of additional information.

**EEB Position:** The EEB will review this technology proposal in its roadmap process, based on the review and evaluation currently underway by the RD&D Policy Working Group.



**EXHIBIT II: ENERGY EFFICIENCY BOARD RESOLUTIONS (Electric and Natural Gas)**

The Energy Efficiency Board's Resolutions will be filed at a later date.

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## EXHIBIT III: DPUC COMPLIANCE ORDERS (Electric and Natural Gas)

### Orders

In its March 17, 2009 Final Decision (“Decision”) in Docket Nos. 09-10-03 and 08-10-02, Department of Public Utility Control (“Department”) Review of the 2010 Electric and Natural Gas Conservation and Load Management Plan for 2010, the Department issued a series of Orders and compliance dates. The following information provides the Electric Companies and Natural Gas Companies responses to those Orders and, where appropriate, refers to the associated document of record.

**1. On or before April 1, 2010, the EDCs shall submit a revised budget as discussed in Section II.B.4., herein.**

*The EDCs requested and received approval from the Department for an extension to submit a revised budget to April 15, 2010. The EDCs filed the revised budget on April 15, 2010.*

**2. On or before May 15, 2010, the EDCs shall submit their plan and budget to conduct a targeted marketing campaign for CFLs as discussed in Section II.G.8., herein.**

*The EDCs submitted the plan and budget to conduct a CFL targeted marketing campaign to the Department on May 13, 2010. The DPUC approved this plan on June 2, 2010.*

**3. On or before March 31, 2010, CASE shall submit its plan and budget to develop a real-time air quality tracker as discussed in Section II.H.4., herein for Department approval. The ECMB shall release funding for this project upon Department approval of the plan and budget.**

*On March 18, 2010, CASE submitted their plan and budget in response to this compliance order. The DPUC approved CASE’s plan and budget on March 22, 2010.*

**4. Effective with the date of this Decision, thirty days prior to approving any C&I project with incentives that exceed \$100,000, the LDCs shall submit a complete description and cost benefit analysis of the project to the Department for review as discussed in Section II.D., herein.**

*To date, the LDCs have submitted four projects with incentives that exceed \$100,000 to the Department three of which have been approved for incremental budget funding.*

**5. Subsequent to receiving the bids for HES core services the Companies shall submit a summary of the pricing from all bids received and finalized proposed pricing for HES services as discussed in Section II.,E.,2.,h., herein.**

*The Companies will be issuing a Request for Proposal (RFP) for HES service in the 4<sup>th</sup> Quarter of 2010. The Companies will submit a summary of the pricing from all bidders received and finalized pricing for HES services once the RFP process concludes.*

**6. On or before July 1, 2010, the LDCs shall present and discuss the results of the MAP study at its next vendor session and provide recommendations to the Department to address the availability of contractors and/or skilled personnel to deliver energy efficiency services for C&I customers as discussed in Section II.F.3., herein.**

*On June 29, 2010, a vendor informational session was held at Northeast Utilities' Berlin campus. The session presented an overview of the existing Energy Efficiency Fund Integrated Gas and Electric Programs and the results of the 2009 KEMA "Connecticut Natural Gas Commercial and Industrial Energy-Efficiency Potential Study" ("MAP Study").*

*On July 30, 2010, the LDCs submitted a supplemental filing regarding this order. In this filing the LDCs received feedback on ways to improve the overall natural gas energy efficiency program design and delivery to customers, availability of contractors and/or skilled personnel to deliver energy efficiency services to customers and subjects for future Energy Efficiency Fund sponsored training events. As a result of participant feedback, the Companies will continue to pursue development and deployment of additional natural gas equipment rebates in 2011. Program information will be posted on the web for use by the vendor/contractor communities as marketing material. The Companies will explore providing additional Energy Efficiency Fund sponsored natural gas related educational opportunities and continue to provide outreach at trade shows.*

**7. On or before April 1, 2010, the LDCs shall report on the cost-effectiveness and feasibility of extending its window replacement measures to natural gas-heated homes and provide a proposal for including cost effective window measures as part of the HES program for 2010 as discussed in Section II.E.1., herein.**

*On April 1, 2010, the LDCs submitted a letter in compliance with this order. The Companies proposed a modest rebate of \$50 per window capped at ten percent of the window replacement cost for HES program participants in those situations where a*

*single pane window is found in conditioned space. On May 21, 2010, the Department approved the rebate amount.*

**8. Effective the date of this Decision, the LDCs shall calculate all energy savings using current building code standards as a base line in all energy savings calculations, continue to provide rebates under the RNC to customers that are along existing mains, and discontinue rebates under the RNC for insulation-related measures as discussed Section II.E.3.**

*The LDCs have complied with this order. Please see response to Order number 10.*

**9. Effective the date of this Decision, the LDCs shall make the \$300 Hot Water Heating rebate available to all of their customers that have an inspection report signed by the local building inspector indicating the installation of the hot water heater has passed inspection as discussed for LDCs in Section II.E.4., herein.**

*The LDCs have complied with this order.*

**10. On or before April 1, 2010, the LDCs shall submit a restated budget that accounts for the decrease in allowed expenditures associated with the RNC and re-file all energy savings assuming the building code standards are used as a base line as discussed for LDCs in Section II.E., herein.**

*The EDCs and LDCs requested and received approval from the Department for an extension to submit a revised budget to April 15, 2010. The EDCs and the LDCs filed the revised budget on April 15, 2010. On July 9, 2010, the LDCs filed a supplement to this order describing the two ways savings will be calculated: 1) Calculating savings using prescriptive code standards, and 2) Calculating savings using performance based standards on baseline evaluations.*

**11. On or before June 1, 2010, the Evaluation Committee shall submit a report to the Department that will establish the baseline for the current level of awareness among Connecticut's residential, business and municipal customers regarding the Energy Efficiency Fund, the programs it supports, the benefits it provides and the general understanding about funding for these initiatives. The report shall include the Evaluation Committee's recommendation as to 1) the increase in awareness (i.e., performance metric) that should be applied in calculating the EDCs performance incentive for 2011 and 2) the timing of the follow-up evaluation necessary to determine the change in awareness as discussed for the EDCs in Section II.G.8., herein.**

*On June 14, 2010, the EEB submitted the recommendations of the Evaluation Committee to the DPUC in compliance with this order.*

**12. On or before June 1, 2010, the Evaluation Committee shall submit its recommendation regarding the timing of the follow-up evaluation that will be conducted to determine the change in socket penetration as discussed for the EDCs in Section II.G.8., herein.**

*On June 14, 2010, the EEB submitted the Evaluation Committee's recommendations to the DPUC in compliance with this order.*

**13. Effective the date of this Decision, the Department will cap any oil and gas subsidies at 2009 levels under the low income program. All incremental spending by the EDCs must be for cost-effective electric conservation measures.**

*The EDCs have complied with this order.*

**14. On or before July 21, 2010, the ECMB shall submit an evaluation and recommendations regarding the SmartLiving Center as discussed in Section II.,E.,11., herein.**

*On July 21, 2010, the Companies with the advisement and approval from the EEB filed an evaluation and three recommendations regarding the Smart Living Center. The DPUC in its letter dated August 31, 2010 acknowledged The Companies and EEB have presented three options, including, but not limited to, closing the current location in Orange and not reopening an additional SmartLiving Center (Option 1); maintaining the current facility and constructing a second one (Option 2); and, constructing two new facilities (Option 3).<sup>21</sup> The filing indicates that of the twelve votes cast at the June 9, 2010 Energy Efficiency Board meeting, five voted for Option 1, six voted for Option 2, and two voted for Option 3. Based the June 9, 2010 vote it is clear that the Energy Efficiency Board is divided on this issue. Therefore, absent clear direction from the Energy Efficiency Board it would be inappropriate for the Department to rule on this significant issue or to extend the current lease for an additional five years without a more comprehensive review of the matter. This matter will be explored as part of the 2011 conservation and load management review. Based on the foregoing, the Department will authorize UI to extend the current lease for up to two years. If UI cannot do so, it should make arrangements to shut down the SmartLiving Center and store any displays that may be used in the future.*

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<sup>21</sup> In the filing, the Companies estimate it would cost \$2.5 million in 2011 to upgrade the Orange facility, develop the second center and staff both facilities.

15. On or before October 1, 2010, as part of the 2011 C&LM Plan the EDCs, LDCs, Companies, ECMB and/or ISE (as appropriate) shall:

a. Submit their recommendations and plan to proceed regarding residential HPWHs as discussed for the EDCs in Section II.E.5., herein;

*On August 30, 2010, the EDCs submitted their recommendations and plan to proceed with Heat Pump Water Heaters (“HPWH”).*

b. Demonstrate that they have significantly increased the educational offerings for architects, engineers and builders during 2010 as discussed for the EDCs in Section II.F.1., herein;

*In compliance with Order #15, Section B, the Companies have spent considerable time and effort developing a training curriculum that addresses code issues and high performance equipment design options. The following table identifies the sessions that have been completed or scheduled.*

<i>Topic</i>	<i>Sessions</i>	
<i>Financing and Tax Incentives - Municipalities</i>	<i>2 - ½ day</i>	<i>completed</i>
<i>Financing and Tax Incentives - C&amp;I</i>	<i>2 - ½ day</i>	<i>completed</i>
<i>ASHRAE Code 90.1 - 2004</i>	<i>2 - ½ day</i>	<i>completed</i>
<i>High Performance Lighting</i>	<i>2 - ½ day</i>	<i>completed</i>
<i>Day Lighting Controls</i>	<i>2 - ½ day</i>	<i>completed</i>
<i>Water Source Heat Pumps</i>	<i>1 - 2 day</i>	<i>October</i>
<i>New Energy Codes - A Discussion on IECC 2009 and ASHRAE 90.1 - 2010</i>	<i>2 - 2 hr</i>	<i>September, October</i>
<i>Advanced Lighting Controls</i>	<i>2 (tbd)</i>	<i>November</i>

*The Companies have also established working partnerships with entities such as the Connecticut Chapter of the American Institute of Architects (AIA), the Connecticut Chapter of the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE), the Construction Institute (CI), the American of Council of Engineering Companies of Connecticut (ACEC), and Connecticut’s Department of Public Safety (DPS). The result of these partnerships is an increased ability to offer a broader base of relevant information as it relates to codes, high performance buildings and new construction in general. The Companies will coordinate and cross promote training activities with AIA, ASHRAE, CI, ACEC, and DPS so that the best results can be achieved in a cost effective manner.*

*The Companies have been working with stakeholders to understand the code environment so as to add value and not create confusion. The Companies emphasis has been on an understanding of the code so that there is increased compliance and a basis for promoting the beyond code programs. 2010 has been a year to learn what the expectations are for the code and when the code will be adopted. It was hoped that when the State accepted ARRA funds, the 2009 IECC would be adopted in early 2011. Now it appears that the 2009 IECC will be adopted late in 2011 or early 2012. DPS mandatory training of the building officials on the 2009 IECC supported by ARRA funds is planned for the fall of 2010 and 2011. DPS on-site audits to demonstrate 90 percent compliance are not anticipated until 2012. The Companies will continue to coordinate efforts with DPS on training issues so that a consistent message is delivered and understood by both the enforcement community and the design community.*

*While DPS training focuses on the enforcement community, the Companies will focus on the design professionals, suppliers and the construction community. The Companies' training will cover the current code requirements, the technologies and practices that will support compliance, the requirements that will be included in the next edition of the code, and standards on commissioning, maintenance manuals and operating manuals. Forums will also be held with the design professionals to understand how business and enforcement practices need to change to accommodate the changes in the code.*

*The Companies will also support a training needs assessment to identify areas that need to be addressed to improve compliance.*

**c. Develop a strategic plan and a proposed budget for curriculum development in vocational schools and community colleges as discussed for the EDCs in Section II.F.1., herein;**

*This order is directed to the ISE and the EEB.*

**d. Submit the results of Tracks 1 and 2 of the BSC pilot study, together with cost-effectiveness estimates as discussed for the EDCs in Section II.F.2., herein;**

*In compliance with Order #15, Section D, the Companies are presenting the results of the BSC program to date. As a prelude to this discussion, it should be noted that the*

*two individual program administrators of CL&P and UI presented a paper at the 2010 ACEEE Summer Study on Energy Efficiency in Buildings<sup>22</sup>, on the concept of BSC. The preliminary results from the BSC Track A, through August, are summarized below:*

*The concept behind BSC's Track A is to work closely with a small group of customers in which they (with the Company's assistance) establish a plan that requires "buy-in" from upper management down through the employees. The customers develop metrics that are specific to their customized BSC plan. Throughout the process, BSC offers an overall education relevant to energy and resource management and sustainability as it applies to the customer. Track A as it is currently administered facilitates a series of meetings with the customer to discuss the potential opportunities. Working closely with the customer, these meetings present opportunities in which the customer realizes that they can utilize the other Energy Efficiency Fund portfolio offerings to increase the overall benefits realized by the company and its employees. It is this educational aspect that allows the customer to undergo a "behavioral" change.*

*To date, six customers have signed the required Memorandum of Understanding ("MOU") and four are in varying stages of plan development. Relevant facts regarding the four most "senior" Track A participants to date are as follows:*

- 1.) Technical initiatives - 20 initiatives have been undertaken including participation in Energy Opportunities or Energy Conscious Blueprint programs; implementation of specific procedural changes that lead to savings; participating in LEAN training events; implementation of a composting pilot; and piloting a "zero scape" water saving project.*
- 2.) Management initiatives - 15 initiatives have been undertaken including the implementation of Sustainable Real Estate Manager to track energy, waste, water, and carbon reduction; Sustainability Competency & Opportunity Rating & Evaluation ("SCORE<sup>TM</sup>") sustainability assessments have been completed for three participants; implementation of specific policies that result in savings like a no idling policy for vendor trucks; the creation of Leadership/Energy teams, conducting energy management assessments; and monitoring energy trends.*
- 3.) Communication / Awareness / Social initiatives - internal promotion of energy awareness combined with CFL sales; internal promotion of energy awareness combined with Home Energy Solutions (HES) promotion; tree planting (a tree planted for each truck dispatched throughout the year); and external*

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<sup>22</sup> Title of paper on BSC: "The Bees Who Make the Hive Thrive: An Examination of Educating for Business Sustainability"

<http://www.aceee.org/node/3251>

*communications such as case studies. In addition, two customers are participating in the Track B curriculum program.*

*4.) Savings - through August the participating companies have generated savings of 86,331 kWh (an increase of approximately 100 percent over 2009) and 226,307 lbs of CO<sub>2</sub> removed from the atmosphere. These savings are captured from relatively small (low cost) projects that the customers have undertaken as a result of their BSC experience. In addition, 90,000 kWh and 2,298 CCF have been saved by implementing projects with either the EO or ECB programs that were derived from participation in the BSC program.*

*It should be noted that there are two Track A Customers who are also participating in the Track B curriculum. This was done to service two needs: 1) to service the need of these customers, who both expressed interest in receiving formal training in the area of sustainability, and 2) to obtain data from these customers regarding the benefits and shortcomings of each of the two BSC tracks/approaches. It is our hope that the information obtained from these two customers will allow us to better shape program offerings, and potentially, at a later date, combine the best elements of both Track A and B into a single track BSC program.*

*Preliminary results from the BSC Track B (totaling 8 half-day classes), through August, are summarized below:*

*Thirteen (13) participants were introduced to sustainability concepts, definitions and frameworks while identifying boundaries and stakeholders. The site assessment tool was introduced and then implemented with all 13 participants, mostly manufacturers. Each SCORE™ assessment was administered by Maureen Hart of Sustainable Measures in West Hartford. The SCORE™ assessment was used to achieve three goals for each participant: establish a business sustainability benchmark, identify sustainability success factors for each company, and facilitate networking and collaboration both within and between participating companies. As a sustainability benchmarking tool, the results of the SCORE™ assessment show that, although some of the participants are beginning to institutionalize sustainable business practices, most of the 13 companies are in the very early stages of a journey to sustainability. One area where the most significant work has been done to date is Environmental Affairs and environment-related areas of Facilities and Manufacturing. This was particularly evident with companies that had a strong emphasis on Lean Manufacturing techniques.*

*The SCORE™ assessment highlighted three key factors which point to an increased likelihood of companies successfully implementing more sustainable practices. These can be categorized as (1) a company having certain pre-requisites in place, (2) having*

*management support and (3) no barriers to effective action. Although the number of companies participating in the Track B initiative does not represent a statistically valid sample, the assessment “discovery” process did produce significant findings about both the presence and absence of these success factors.*

*The use of SCORE™ as an exercise at the initial BSC course in March was an effective mechanism for structuring and framing the group discussion of sustainability practices and sharing best practices while identifying some common barriers. The SCORE™ assessment tool was well received by the Track B companies and was generally viewed as a useful process for raising awareness and a common understanding of sustainable business practices within their organizations. Finally, the SCORE™ assessment’s interview process identified additional best practices and common barriers that the group shared with one another in the third course (BSC 103).*

*Carbon Footprint issues, numerical conversions and boundaries were introduced. Walt Tunnessen, ENERGY STAR National Program Manager, EPA provided a presentation connecting the climate with energy management practices. He also introduced ENERGY STAR’s new Energy Tracker Tool<sup>23</sup>, and introduced the ENERGY STAR Challenge for Industry<sup>24</sup>. Manufacturers taking the ENERGY STAR Challenge for Industry agree to; establish an energy intensity metric; set a baseline and 10 percent improvement goal; create a simple Energy Tracking Plan; track energy use and site production; make improvements to reduce energy intensity; and; verify energy savings and apply for recognition. Participants were encouraged to register for and participate*

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<sup>23</sup> The ENERGY STAR Energy Tracking Tool provides manufacturers with a simple means to track energy use, set baselines, establish energy and emissions reduction goals, and evaluate progress towards achieving goals. The tool is designed to support manufacturing companies participating in the US EPA’s ENERGY STAR program that are committed in measuring, tracking, and benchmarking energy performance. It is intended for mid- to small-sized manufacturing companies that may have limited resources and are unable to invest in a custom data tracking system. (<http://www.energystar.gov/index.cfm?c=industry.industrybenchmarkingtools>)

<sup>24</sup> The ENERGY STAR Challenge for Industry recognizes industrial sites that improve their energy efficiency by 10% within 5 years. Companies and sites that step up to the Challenge; (a) demonstrate their commitment to protecting the environment by pledging to improve energy performance with ENERGY STAR; (b) leverage the ENERGY STAR name in energy efficiency to motivate sites; (c) utilize ENERGY STAR resources and communication tools; (d) create momentum for energy initiatives by establishing a public goal; and (e) establish energy management practices for tracking and benchmarking energy performance that will help drive results. [http://www.energystar.gov/index.cfm?c=industry\\_challenge.industry\\_challenge](http://www.energystar.gov/index.cfm?c=industry_challenge.industry_challenge)

*in the ENERGY STAR Challenge for Industry. Result: 23 percent followed through and are actively participating.*

*Sixty-nine percent of the participants signed the Pledge of Executive Sponsorship, in which the participating company pledges to develop and implement initiatives within their businesses to achieve a 10 percent reduction in energy between March 2010 and March 2011. In addition, they pledge to also focus at least one other area of sustainability for a 10 percent reduction in waste, carbon emissions or water.*

*Two participating companies presented a class discussion on the important connection between Lean Manufacturing and Business Sustainability.*

*A hands-on “computer-lab” training session was provided on ENERGY STAR’s Energy Tracker Tool, due to participant feedback from Walt Tunnessen’s quick overview, to further increase the understanding of the tool and of developing metrics to measure and track energy consumption against company-specific criteria. Preliminary results show that these manufacturers were already using some in-house form of energy tracking or benchmarking tool. Class surveys indicated that ENERGY STAR’s Energy Tracker Tool may compliment those existing in-house tools, especially if the participant was convinced of the inherent value by registering for, and participating in, the ENERGY STAR Challenge for Industry.*

*Supply Chain Sustainability (BSC 106 ) course content was delivered through a virtual classroom format using Kaplan EduNeering’s<sup>25</sup> on-line curriculum that employed three components: viewing a web-based video Creating Sustainable Businesses through Sustainable Supply Chains, completing an online course on Sustainable Supply Chains, then participating in a “Discuss and Debrief” conference call with others from the BSC program. 91 percent of the participants completed the video and course online, and attended the conference call, which experienced 100 percent engagement.*

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<sup>25</sup> Kaplan EduNeering and Seventh Generation have combined forces to launch the Kaplan EduNeering/Seventh Generation Sustainability Institute to assist organizations that are seeking to advance their own sustainability agendas, including the development of a common framework for understanding sustainability; identifying how to integrate sustainability into your business; and the complexity of the supply chain.

<http://www.institutesustainability.com/about-our-courses/>

*Cost-effectiveness estimates:*

*The results of BSC tracks A and B, along with preliminary results of other behavioral-based resource and energy conservation initiatives in many other states, indicate that measurable savings may be achieved by helping customers utilize the educational principles and tools outlined in BSC. But the Companies feel that it is too early to reasonably estimate cost-effectiveness of this specific initiative. The Companies are currently working with the ECMB Evaluation coordinator to structure an evaluation of this, the first stage for BSC, along with helping to define clear, objective evaluation criteria for the next generation of BSC, which is designed to significantly increase the number of participants over time.*

*Title of paper on BSC: "The Bees Who Make the Hive Thrive: An Examination of Educating for Business Sustainability"*

<http://www.aceee.org/node/3251>

SCORE™ is a sustainability assessment that can help determine where your organization is on the road to sustainability and also identify new opportunities. It assesses organizational practices. It was developed by AXIS Performance Advisors in conjunction with the International Sustainable Development Foundation and the Zero Waste Alliance. SCORE™ includes nearly 100 practices and is organized by functions that practically all organizations have, making it easy to assign responsibility. It helps departments understand what they are supposed to do. For each practice, it provides three levels of benchmarks so you can see where you are now and where you need to go long-term. It dovetails with "The Business Guide to Sustainability: Practical Strategies and Tools for Organizations," written by Darcy Hitchcock & Marsha Willard. SCORE™ is meant to provide frameworks, tools and strategies for improving sustainability performance. It can supplement emerging sustainability rating systems and award programs.

<sup>2</sup> SCORE is a sustainability assessment that can help determine where your organization is on the road to sustainability and also identify new opportunities. It assesses organizational practices. It was developed by AXIS Performance Advisors in conjunction with the International Sustainable Development Foundation and the Zero Waste Alliance. SCORE includes nearly 100 practices and is organized by functions that practically all organizations have, making it easy to assign responsibility. It helps departments understand what they are supposed to do. For each practice, it provides three levels of benchmarks so you can see where you are now and where you need to go long-term. It dovetails with "***The Business Guide to Sustainability: Practical Strategies and Tools for Organizations,***" written by Darcy Hitchcock & Marsha Willard. SCORE is meant to provide frameworks, tools and strategies for improving sustainability performance. It can supplement emerging sustainability rating systems and award programs.

<sup>3</sup> The ENERGY STAR Energy Tracking Tool provides manufacturers with a simple means to track energy use, set baselines, establish energy and emissions reduction goals, and evaluate progress towards achieving goals. The tool is designed to support manufacturing companies participating in the US EPA's ENERGY STAR program that are

committed in measuring, tracking, and benchmarking energy performance. It is intended for mid- to small-sized manufacturing companies that may have limited resources and are unable to invest in a custom data tracking system. (<http://www.energystar.gov/index.cfm?c=industry.industrybenchmarkingtools>)

<sup>4</sup> The ENERGY STAR Challenge for Industry recognizes industrial sites that improve their energy efficiency by 10% within 5 years. Companies and sites that step up to the Challenge; (a) demonstrate their commitment to protecting the environment by pledging to improve energy performance with ENERGY STAR; (b) leverage the ENERGY STAR name in energy efficiency to motivate sites; (c) utilize ENERGY STAR resources and communication tools; (d) create momentum for energy initiatives by establishing a public goal; and (e) establish energy management practices for tracking and benchmarking energy performance that will help drive results.

[http://www.energystar.gov/index.cfm?c=industry\\_challenge.industry\\_challenge](http://www.energystar.gov/index.cfm?c=industry_challenge.industry_challenge)

<sup>5</sup> Kaplan EduNeering and Seventh Generation have combined forces to launch the Kaplan EduNeering/Seventh Generation Sustainability Institute to assist organizations that are seeking to advance their own sustainability agendas, including the development of a common framework for understanding sustainability; identifying how to integrate sustainability into your business; and the complexity of the supply chain.

<http://www.institutesustainability.com/about-our-courses/>

**e. Demonstrate that the ECMB Evaluation Committee has included a participant satisfaction/program improvement questionnaire in future impact evaluation reports as discussed for the ECMB in Section II.G.1., herein;**

*This order is directed to the EEB Evaluation Committee.*

**f. Explain the plan to apply up to \$200,000 to promote stricter appliance and electronic standards through the proper venue(s) as discussed for the EDCs in Section II.E.8., herein;**

*As the Department recognizes The California Energy Commission (CEC) has taken a leadership role in establishing the California State Appliance Energy Efficiency Standards, Title 20 that subsequently has been adopted by manufacturers. In 2004, Connecticut established energy efficiency standards for 8 products. And since 2001 the State has introduced 16 standards all of which only 4 have been preempted by federal legislation. While California has adopted standards for over 50 products many of which their regulations have become federal standards. In 2006 and again in 2008, California established Appliance Efficiency Regulations creating standards for 21 and 23 categories respectively. Over the past year the Companies have reviewed the various Initiatives and Collaboratives that exist in an effort to increase appliances standards at both the state and national level. Connecticut, along with four (4) others states Oregon, Rhode Island, Washington as well as California, have joined together to form the Multi-*

*State Appliance Standards Collaborative. This collaborative under the leadership of the American Council for an Energy Efficient Economy (ACEEE) Appliance Standards Awareness Project (ASAP), is dedicated to increasing the awareness and support of appliance and equipment efficiency standards. ASAP provides advice and technical support to parties interested in advancing state efficiency standards.*

*The Companies have also participated in numerous webinars and conferences dedicated to the advancement of appliances standards sponsored by various energy efficiency partners such as Northeast Energy Efficiency Partnership (NEEP), Consortium of Energy Efficiency (CEE), ESource, and ICF Consulting.*

*What the Companies have learned over the past year is that, like Connecticut, numerous states are grappling with how to address efficiency standards for building codes, appliances and consumer electronics. Many of our colleagues are faced with the same challenges we face when it comes to designing programs in the appliance and consumer electronics sectors.*

*The table below provides a summary of the efforts that the Companies undertook in 2010 and for 2011 look to further promote to encourage Connecticut's adoption of efficiency code and standards:*

Technology	Companies Efforts	Action needed
Televisions < 58 inches diagonal (1,400 square inches)	<ol style="list-style-type: none"> <li>1.) Companies in conjunction with NEEP supported the higher efficiency of TVs</li> <li>2.) 2010 Q4 the Companies will launch a consumer electronics pilot focusing on retailers promoting high efficiency televisions</li> <li>3.) Possible DOE standards will not take effect until 2016</li> </ol>	<p>The Companies will work with the Energy and Technology Committee to present legislation that will adopt CEC TV specification</p> <p>There are over 1,000 televisions being manufactured that meet the CEC Tier I spec (Jan 2011). and close to 500 TVs that meet CEC Tier II spec (Jan 2013).</p>
Consumer Electronics	The Companies see the consumer electronic market as very fluid. Every 6 months products are improved or upgraded. The Companies believe that the best impact EEF could make would be in educating retail sales forces and consumers on the impacts of phantom loads on the consumer's energy bill.	The Companies intend for 2011 to create a retailer in-store POP campaign and establish a retailer training program to educate sales associates on the growing energy consumptions of consumer electronics and the impacts of phantom loads on customers bills
TV Set Top Boxes	The Companies believe that there is an opportunity to work with the appropriate stakeholders to establish an efficiency standard for TV Set Top Boxes.	Work with the Department to better understand if and how a technology like Set Top Boxes could become a mandatory technology for cable television subscribers.
Furnaces/Boilers	<ol style="list-style-type: none"> <li>1.) The Companies in conjunction with the EEB have been in discussions as to whether or not support the New England Governor's Conference Resolution 197 specifically as it pertains to the efficiency of furnaces</li> <li>2.) In 2011 the Companies look to create and implement a furnace/boiler rebate program</li> </ol>	The Companies will continue to work with the EEB to determine the appropriate track to take on this topic
Portable Lighting Fixtures	There is an opportunity for the State to adopt California's 2008 standard for portable lighting fixtures.	Companies will work with Energy and Technology Committee.

g. Demonstrate that the 2010 ECMB Program Evaluation Plan has been revised to (1) devise a more transparent and inclusive scheduling process for the ECMB evaluation committee, such as posting of all meeting dates and conference calls, evaluation schedules, and internal deadlines to offer all ECMB members the ability to comment on every relevant step of the evaluation process, and (2) allow all ECMB members a direct vote on the evaluation budgets as discussed for the ECMB in Section II.G.1., herein;

*No changes have been made to the EEB Program Evaluation process.*

h. Revise their 2010 programs to include the metrics, goals and percentages discussed for the EDCs in Sections II.E.2.e, and II.E.6., herein;

*The EDCs have complied with this order.*

i. Provide a summary of Wise Use calls as part of the C&LM Plan Standard Filing Requirement as discussed for the EDCs in Section II.G.9., herein;

CL&P Table:

WISE USE CALL SUMMARY - 2010												
Month	# of Calls	HEB	Other Rec Programs	Wrap or UI Help c	Smart Living Center	Other C&J Programs	Alternate Suppliers	Clean Energy	"Green" building c job c, LEED, etc.)	Technical	Other	Total
JANUARY	1,404	505	325	107	1	150	80	7		9	220	1,404
FEBRUARY	1,388	700	350	100		115	28	2	5		90	1,388
MARCH	2,065	1,043	468	66	2	280	45	7	8	5	141	2,065
APRIL	1,399	556	468	46		156	52	7	3	15	96	1,399
MAY	1,093	450	369	30	3	145	40	2	2	12	40	1,093
JUNE	2,089	915	675	77		195	50	2		2	173	2,089
JULY	2,270	1,037	760	127		138	59		6	12	131	2,270
AUGUST	2,019	1,220	291	75		317	31			10	75	2,019
SEPTEMBER	1,306	734	254	56		259	3					1,306
Grand Totals	15,033	7,160	3,960	684	6	1,755	386	27	24	65	966	

**UI Table:**

2010 Wise Use Call - United Illuminating Company												
Month	HES	Other Res.	UI HELPS	SmartLiving Center	SBEA	Other C&I Programs	Alternate Suppliers	Clean Energy Fund	"Green"	Technical	Other	Total
January	233	124	290	0	1	9	33	0			73	763
February	460	145	214	0	46	8	21	3			52	949
March	940	142	377	0	17	5	44	1			63	1589
April	492	232	235	1	11	10	24	0			44	1049
May	421	129	172	0	12	4	28	4			23	793
June	358	174	175	0	20	14	36	1			30	808
July	217	376	114	1	16	8	24	3			48	807
August	274	216	362	2	3	12	29	0			63	961
September	158	103		1	2	18	27	1			46	356
October												
November												
December												
Total												8075
Grand total	3553	1641	1939	5	128	88	266	13	0	0	442	

**j. Provide an analysis of, at minimum, 10 years of projected program costs and benefits assuming reasonable program growth and compare that to supply side options as discussed for the LDCs in Section II.B.3., herein;**

*The table below provides the information requested.*

Connecticut Natural Gas Companies Ten Year Efficiency Statewide Program Forecast											
	Annual Costs and Savings										
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Budget (000)	\$16,870	\$17,714	\$18,599	\$19,529	\$20,506	\$21,531	\$22,608	\$23,738	\$24,925	\$26,171	
Volume (Dth)	326,644	342,976	360,125	378,131	397,038	416,890	437,734	459,621	482,602	506,732	
Peak (Dth)	2,760	2,898	3,043	3,195	3,355	3,523	3,699	3,884	4,078	4,282	
Benefits (000)	\$40,851	\$44,254	\$47,791	\$51,644	\$55,820	\$60,337	\$65,204	\$70,417	\$75,979	\$81,972	
BCR	2.42	2.50	2.57	2.64	2.72	2.80	2.88	2.97	3.05	3.13	

**Notes:**

This projection is based on a program growth of 5% annually using the 2011 C&LM Plan as the base year.  
 The benefits are based on the avoided costs used to evaluate C&LM conservation programs and are from:  
*Avoided Energy Supply Costs in New England: 2008 Report*, Oct. 23, 2009, Synapse Energy Economics, Inc.  
 Due to recent developments in the natural gas market, the current Henry Hub prices for natural gas are significantly lower than those assumed in this study.  
 C&LM avoided costs are updated on a biennial basis. No attempt was made to update the avoided costs used in these calculations based on current market conditions.

**k. Include the June 1, 2010 implementation date for the residential financing pilot program as a joint metric in their respective 2010 C&LM incentive calculations and shall assign 5% of each company's total performance incentive to this metric as discussed for the EDCs in Section II.E.6., herein;**

*On June 1, 2010, UI and CL&P initiated a Financing Pilot in compliance with the Department's Decision (see UI and CL&P's June 2, 2010 letter notifying the Department of the Financing Pilot implementation).*

**l. Include attic stairway insulation as part of the Core Services under HES and report on the potential to provide insulation for whole house ceiling/attic fans as discussed for the EDCs in Section II.E.10, herein;**

*These items are routinely addressed as part of the core services.*

**m. Train vendors to record the type and vintage of the significant energy consuming equipment used by SBEA customers, as discussed for the EDCs in Section II.F.5., herein, and to develop a data base for vendors to record this information to be used for referrals to the EO program;**

*In compliance with Order #15, Section M, the Companies have established a pilot project requiring the SBEA Vendors to record the vintage (age) and condition of significant energy consuming equipment (i.e., HVAC systems, chillers, cooking equipment, gas fueled equipment, etc.) allowing the Companies to develop a database to be used as potential referrals with the Energy Opportunities Program.*

*The SBEA Vendors were notified of the pilot project in early August with effective pilot dates of August 16, 2010 through December 31, 2010. The SBEA program will require all contractors to complete equipment inventories for a minimum of 25 percent of their required new leads per month. These inventories are to accompany a minimum of 25 percent of the required new leads. The Companies will track and report on each contractor's monthly compliance with this pilot.*

*To facilitate data collection while in the field, the Companies have jointly developed and distributed a printable inventory form based on an Excel spreadsheet. In addition, the Companies have modified their respective electronic CLM tracking systems (CLMTRS) to include an "equipment inventory" section. This section will house the data and be available for use either on a customer or project basis. The electronic system will offer reporting capabilities.*

*The "equipment inventory" will track a variety of basic information such as, but not limited to, Quantity, End-Use, Equipment Type, Fuel Type, Units (gal etc.), Equipment Size (tons, hp etc.), Manufacturer, Model number, and approximate Age meeting the requirement of the Department order. In the event that equipment and or information are not accessible, a comment area is available. Potential examples of the types of equipment that may be inventoried are as follows: A/C equipment, Roof Top Air Handling Units ("RTU"), Pad Mount Air Handling Units, Chillers, Boilers, Unit Heaters, Water Heating Equipment, Commercial Dishwashers, Walk-In Coolers, Walk-In Freezers, Commercial Ovens, Fryalators, Exhaust Fans, and Air Compressors. Please note this only a partial list of the potential equipment that may be uncovered by the SBEA Vendors.*

**n. Include incentives for CFL socket penetration as discussed in Section II.G.8.f. and for awareness about the Energy Efficiency Fund as discussed in Section II.G.8.c., herein;**

*The 2011 Plan includes incentives for socket penetration and for awareness about the Energy Efficiency Fund.*

**o. Adjust the goal for the SmartLiving center for purposes of calculating their 2010 performance incentive as discussed in Section II.E.11., herein;**

*The EDCs have complied with this order.*

**p. Submit to the Department a savings attribution methodology to ascribe savings from more stringent codes and standards for consumer appliances and electronics as discussed for the ECMB in Section II.E.8., herein;**

*This order is directed to the EEB.*

**q. Submit the evaluation results for the K-12 pilot program as discussed for the ISE in Section II.E.9., herein;**

*This order is directed to ISE.*

**r. Report on the efficacy of allowing all ECMB members a direct vote on the independent evaluations budget as discussed for the ECMB in Section II.G.1., herein;**

*This has been implemented.*

**s. Provide a summary of the Wilson initiative as discussed for the EDCs in Section II.H.2., herein;**

*Wilson Education has proposed to complete 10 "This Old House of Worship" initiatives with various congregations around the state. Discussion with Wilson Education began in May 2010 regarding Wilson's proposed activities. As of the end of September 4 initiatives have taken place in the municipalities of Ridgefield, New London, Litchfield and Mystic. Additional sessions are planned in New Britain and New Haven. The Wilson initiative will conclude in early 2011 at which time the EDCs will be able to provide additional information pertaining this effort.*

**t. Assure that all Energy Efficiency Fund events and ECMB meetings are posted to the CTEnergyInfo.com Calendar as discussed for the EDCs in Section II.G.10., herein; and,**

*The EDCs have complied with this order.*

**u. Incorporate the directives regarding funding requests as discussed for the ECMB in Section II.H.7., herein.**

*The EDCs have complied with this order.*

**2010 Carrying Charges Summary**

	<u>@ 12/31/09</u>	<u>Jan</u>	<u>Feb</u>	<b>Q1</b> <b>March</b>
<b>Monthly C&amp;LM Balance</b>	\$ (32,509,928)	\$ (35,553,205)	\$ (38,156,980)	\$ (42,729,673)
<b>Average C&amp;LM Balance</b>				<b>March</b> \$ (37,619,800)
<b>Accumulated Deferred Income Tax</b> <b>40.36250%</b>				<u>\$ (15,184,292)</u>
<b>Net Balance</b>				<u>\$ (22,435,508)</u>
<b>Quarterly Rate of Return *</b>				2.7325%
Total First Quarter Carrying Charges				<b>\$ (613,050)</b>
		<u>Apr</u>	<u>May</u>	<b>Q2</b> <b>June</b>
<b>Monthly C&amp;LM Balance</b>		\$ (41,667,902)	\$ (42,143,878)	\$ (45,431,139)
<b>Average C&amp;LM Balance</b>				\$ (44,080,406)
<b>Accumulated Deferred Income Tax</b> <b>40.36250%</b>				<u>\$ (17,791,954)</u>
<b>Net Balance</b>				<u>\$ (26,288,452)</u>
<b>Quarterly Rate of Return *</b>				2.7325%
Total Second Quarter Carrying Charges				<b>\$ (718,332)</b>
		<u>Jul</u>	<u>Aug</u>	<b>Estimate</b> <b>Q3</b> <b>September</b>
<b>Monthly C&amp;LM Balance</b>		\$ (46,642,310)	\$ (49,192,082)	\$ (46,900,146)
<b>Average C&amp;LM Balance</b>				\$ (46,165,642)
<b>Accumulated Deferred Income Tax</b> <b>40.36250%</b>				<u>\$ (18,633,607)</u>
<b>Net Balance</b>				<u>\$ (27,532,035)</u>
<b>Quarterly Rate of Return **</b>				2.7225%
Total Third Quarter Carrying Charges				<b>\$ (749,560)</b>
		<b>Estimate</b> <b>Oct</b>	<b>Estimate</b> <b>Nov</b>	<b>Estimate</b> <b>Q4</b> <b>December</b>
<b>Monthly C&amp;LM Balance</b>		(42,949,099.85)	(38,662,030.53)	(32,123,856.94)
<b>Average C&amp;LM Balance</b>				\$ (39,512,001)
<b>Accumulated Deferred Income Tax</b> <b>40.36250%</b>				<u>\$ (15,948,032)</u>
<b>Net Balance</b>				<u>\$ (23,563,970)</u>
<b>Quarterly Rate of Return **</b>				2.7225%
Total Fourth Quarter Carrying Charges				<b>\$ (641,529)</b>
		<b>Total Year End Estimated Carrying Charges</b>		
		<b>\$ (2,722,471)</b>		

\*10.93% annual pretax ROR per Docket 07-07-01

\*\*10.89% annual pretax ROR per Docket 09-12-05

**Estimate Assumptions**

1. 2010 C&amp;LM total spending estimated to be \$92.9M

**UI Interest Calculation on CLM Fund Balance**

	C&LM Fund Cumulative Balance	C&LM Running Balance Tax Affected (2006- 40.85%) (2007+ 39.875%)	Interest Rate*	Interest
2003: January	1,191,353.70		11.80%	5,857.49
February	1,966,095.23		11.80%	15,524.12
March	477,736.93		11.80%	12,015.51
April	213,267.88		11.80%	3,397.44
May	1,110,772.48		11.80%	6,508.87
June	2,017,969.99		11.80%	15,362.98
July	3,461,910.70		1.01%	2,306.12
August	4,014,197.79		1.03%	3,208.50
September	5,002,054.66		1.00%	3,756.77
October	5,850,089.75		1.00%	4,521.73
November	6,953,660.45		1.01%	5,388.24
December	6,806,709.58		1.03%	5,905.49
2004: January	7,102,899.99		1.02%	5,911.58
February	8,046,215.43		1.00%	6,312.13
March	8,579,925.73		0.98%	6,789.01
April	9,341,573.83		0.97%	7,243.27
May	9,736,065.39		0.97%	7,710.55
June	9,720,913.51		11.84%	95,987.76
July	9,876,524.00		11.84%	96,680.69
August	9,593,191.36		11.84%	96,050.60
September	8,993,746.72		11.84%	91,695.56
October	7,569,826.49		11.84%	81,713.63
November	7,352,918.65		11.84%	73,618.88
December	7,115,053.17		11.84%	71,375.33
2005: January	7,116,627.65		11.67%	69,201.55
February	7,130,686.17		11.67%	69,277.56
March	7,125,904.06		11.67%	69,322.67
April	7,011,488.36		11.67%	68,743.07
May	6,835,084.77		11.67%	67,328.96
June	6,571,986.52		11.67%	65,191.88
July	6,345,178.61		11.67%	62,809.72
August	5,947,163.03		11.67%	59,771.51
September	5,688,023.32		11.67%	56,576.09
October	5,086,020.06		11.67%	52,388.79
November	4,299,404.43		11.67%	45,636.63
December	960,217.68		11.67%	25,574.91
2006: January	1,288,154.13	664,955.96	10.17%	5,635.50
February	1,466,966.34	814,826.88	10.17%	6,905.66
	Transfer to NBFMCC			(20,461.90)
March	1,362,194.27	836,724.25	10.17%	7,091.24
	Transfer to NBFMCC			(37,736.28)
April	1,485,963.48	842,342.65	10.17%	7,138.85
	Transfer to NBFMCC			(942,214.30)
May	1,208,566.42	796,907.22	10.17%	6,753.79
	Transfer to NBFMCC			(299,587.52)
June	1,091,682.47	680,298.61	10.17%	5,765.53
July	1,255,015.72	694,035.99	10.17%	5,881.96
August	1,185,922.47	721,907.47	10.17%	6,118.17
September	1,310,766.76	738,395.84	10.17%	6,257.90
October	1,259,440.80	760,138.89	10.17%	6,442.18
	Interest Transfer to C&LM Fund			(136,686.58)
November	(713,314.11)	161,516.97	10.17%	1,368.86
December	(887,516.85)	(473,445.76)	10.17%	(4,012.45)
2007: January	(990,595.87)	(564,607.64)	9.99%	(4,700.36)
February	(1,116,626.57)	(633,483.75)	9.99%	(5,273.75)
March	(2,456,558.06)	(1,074,188.63)	9.99%	(8,942.62)
April	(3,639,310.60)	(1,832,570.52)	9.99%	(15,256.15)
May	(2,167,778.45)	(1,745,756.15)	9.99%	(14,533.42)
June	(1,817,186.66)	(1,197,960.14)	9.99%	(9,973.18)
July	(3,407,008.01)	(1,570,523.53)	9.99%	(13,074.61)
August	(4,452,790.57)	(2,362,851.95)	9.99%	(19,670.74)
September	(5,752,725.97)	(3,068,033.41)	9.99%	(25,541.38)
October	(5,074,372.04)	(3,254,896.34)	9.99%	(27,097.01)
November	(4,593,462.24)	(2,906,392.68)	9.99%	(24,195.72)
December	(4,606,244.51)	(2,765,661.84)	9.99%	(23,024.13)
2008: January	(5,208,676.21)	(2,950,610.54)	10.20%	(25,080.19)
February	(4,836,177.24)	(3,019,734.07)	10.20%	(25,667.74)
March	(5,643,232.38)	(3,150,372.52)	10.20%	(26,778.17)
April	(6,487,358.62)	(3,646,758.92)	10.20%	(30,997.45)
May	(6,312,873.20)	(3,848,069.69)	10.20%	(32,708.59)
June	(3,320,028.89)	(2,895,891.19)	10.20%	(24,615.08)
July	(3,090,646.66)	(1,927,209.34)	10.20%	(16,381.28)
August	(1,601,137.80)	(1,410,467.70)	10.20%	(11,988.98)
September	(1,776,219.28)	(1,015,317.97)	10.20%	(8,630.20)
October	(1,936,386.59)	(1,116,102.14)	10.20%	(9,486.87)
November	(214,250.76)	(646,535.35)	10.20%	(6,495.55)
December	185,574.37	(8,620.84)	10.20%	(73.28)
	Interest Transfer from C&LM Fund			347,839.25
December Final	(162,264.88)			
2009: January	25,686.44	(41,064.91)	10.56%	(361.37)
February	88,143.65	34,214.16	10.56%	301.08
March	3,491,950.15	1,076,265.70	10.56%	9,471.14
April	3,133,529.88	1,991,794.93	10.56%	17,527.71
May	5,356,535.00	2,552,325.75	10.56%	22,450.47
June	5,727,161.02	3,332,036.12	10.56%	29,321.92
July	5,411,114.33	3,348,444.03	10.56%	29,468.31
August	6,574,463.27	3,603,164.27	10.56%	31,707.65
September	5,435,069.74	3,610,365.86	10.56%	31,771.22
October	4,319,441.73	2,932,450.01	10.56%	25,805.56
November	3,523,193.89	2,357,692.33	10.56%	20,747.69
December	5,687,200.17	2,628,999.71	10.56%	24,731.32
2010: January	5,192,861.40	3,303,914.12	10.70%	29,459.90
February	3,511,609.45	2,595,548.60	10.70%	23,143.64
March	4,325,256.57	2,336,835.89	10.70%	20,836.79
April	4,102,814.37	2,513,124.33	10.70%	22,408.69
May	2,257,785.99	1,896,635.62	10.70%	16,911.67
June	1,723,458.56	1,187,147.41	10.70%	10,585.40
July	1,307,009.80	903,640.21	10.70%	8,057.46
August	1,763,201.58	915,490.98	10.70%	8,163.13
<b>TOTAL</b>				<b>382,517.55</b>

\*Period January 1, 2003 - June 30, 2003 - pre-tax allowed weighted cost of capital  
 Period July 1, 2003 - May 31, 2004 - short-term borrowing interest rate  
 (Weighted Average Temporary Cash Investments in Money Market Fund)  
 Period June 1, 2004 forward - pre-tax allowed weighted cost of capital

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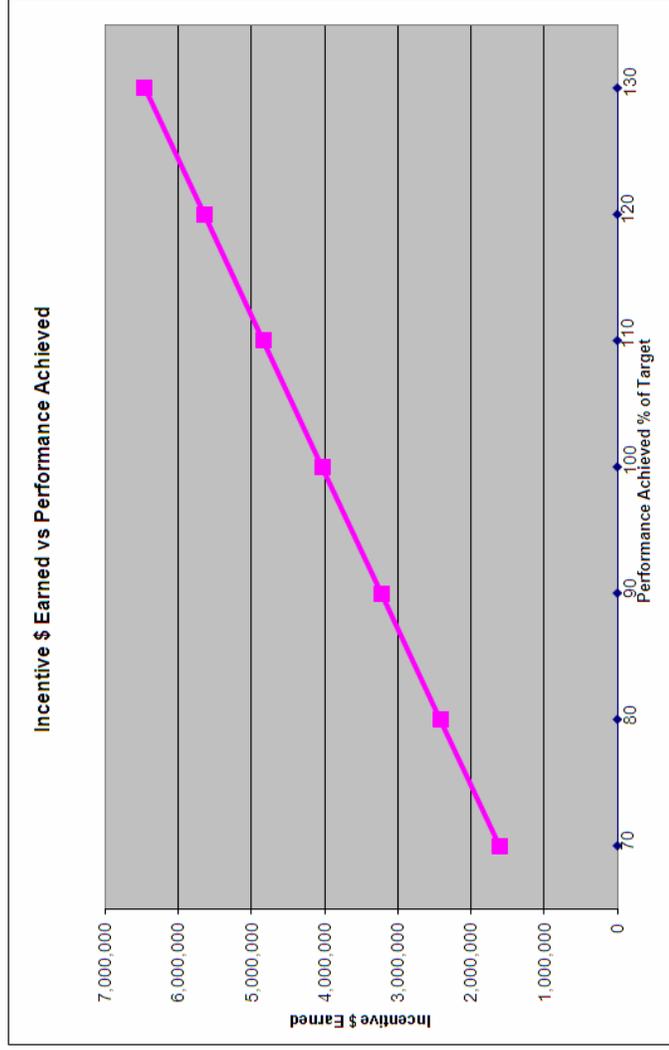
**EXHIBIT IV: PERFORMANCE INCENTIVE MATRIX**

## THE CONNECTICUT LIGHT AND POWER COMPANY

### 2011 Management Incentive Performance Indicators and Incentive Matrix

CL&P and the ECMB recognize that having clear indicators and metrics of performance are helpful in delivering quality programs to Connecticut consumers. The following is a table of performance and incentive metrics developed by the utilities with input from the ECMB, the Board consultants and the Department. These performance and incentive metrics apply to the programs delineated in this Plan. The projected CL&P Performance Incentive is **\$4,035,671** and is based on achieving **100%** of all performance targets and earning an incentive of **5%** of the total C&LM program budget of **\$80,713,418** as shown on Table A (exclusive of Energy Efficiency Board costs, management incentives and audit costs). The actual earned amount will be calculated on a sliding scale based on the percent of goal achieved and the actual total expenditures, based on the following performance range:

-Performance Incentive Illustration-		
<u>Performance %</u>	<u>Pretax Incentive</u>	<u>Pre-tax Incentive</u>
<u>Minimum</u>		
70	2%	\$1,614,268
80	3%	\$2,421,403
90	4%	\$3,228,537
<b>100</b>	<b>5%</b>	<b>\$4,035,671</b>
110	6%	\$4,842,805
120	7%	\$5,649,939
130	8%	\$6,457,073
Maximum		
Incentive Basis Budget		\$80,713,418



(All Monetary Values in Thousands of Dollars)

SECTOR Program	Performance Indicators				Incentive Metrics			
	Program Name	LT-kWh	kW	% (1)	Incentive Metric	Target Goal	Weight	Incentive
<b>RESIDENTIAL</b>								
Residential Programs (Sector Level) Sector Budget	<b>\$29,869</b>							
		Retail Products	444,923,006	8,691	53.6%	Sum of Electric System Benefit from Residential programs	0.143	\$575,083
	New Construction	27,582,507	523	3.3%				
	HES	236,498,218	3,584	27.9%	\$83,911			
	HES Income Eligible	130,345,284	1,677	15.2%				
	Total	839,349,014	14,476					
	Savings Rate	\$ 0.09210 / kWh	\$ 456.13 / kW					
	Savings	\$ 77,308	\$ 6,603					
	(1) percent of target goal							
Net Electric System Benefit - Res.		Electric System Benefit less Program Costs		\$54,042		\$54,042	0.143	\$575,083
Home Energy Solutions	<b>\$11,749</b>	Electric Savings LTkWh :	236,498,218		Energy Savings included in appropriate sector level metric		0.0125	\$50,446
		Demand Savings kw :	3,584					
		Develop and implement a vendor benchmarking and delisting process by 3/31/11 with the goal of increasing savings per participant by 25% by year end			Develop benchmarking and delisting process			
		Codes and Standards (HES and Retail Products)			Codes and Standards		0.0075	\$30,268
EE Communities	<b>\$850</b>	HES Coordination with community tasks forces and vendors to bring in more HES Projects (projects completed from outside of the utilities)			Increase customer participation	50% of projects completed come from outside of the utilities	0.01	\$40,357

(All Monetary Values in Thousands of Dollars)

SECTOR Program	Performance Indicators		Incentive Metrics		
	Incentive Metric	Target Goal	Weight	Incentive	
Residential New Construction	<p><b>\$1,460</b></p> <p>Electric Savings LTKWh : 27,582,507 Demand Savings kw : 523</p> <p>The Companies will develop in collaboration with the EEB by March 31, 2011 for 2009 IECC:</p> <ol style="list-style-type: none"> <li>1) Lighting: Prepare the market for the 50% efficient lighting requirement by working with builders, electricians and suppliers to determine how to get CFLs installed in new homes</li> <li>2) Duct Testing: Work with the HVAC industry and code officials to prepare for the duct testing requirements of the new code; and</li> <li>3) Develop and deliver a series of at least six code trainings.</li> </ol>				
	<p><b>\$10,527</b></p> <p>Electric Savings LTKWh : 130,345,284 Demand Savings KW : 1,877</p>			0.01	<b>\$40,357</b>
HES Income Eligible	<p>Training - EPI Certification and Duct Sealing Training for Vendor:</p>				<b>\$20,178</b>
	<p>Increase coordination and cost share of program participants with DSS/DOE and Natural Gas Programs</p>			<b>5,000</b>	<b>\$20,178</b>
	<p>Promote the installation of ductless split heat pump and LED fixtures</p>			<b>20</b> Projects statewide	<b>\$20,178</b>
Retail Products	<p>Electric Savings LTKWh : 444,923,006 Demand Savings kW : 8,681</p>				
	<p>Increase CFL Socket Penetration from 23% to 36%</p>			36%	<b>\$403,567</b>

(All Monetary Values in Thousands of Dollars)

SECTOR Program	Performance Indicators					Incentive Metrics		
	Program Name	LT-kWh	kW	% (1)	Incentive Metric	Target Goal	Weight	Incentive
COMMERCIAL & INDUSTRIAL (C&I)								
	<b>\$36,879</b>							
C&I Programs (Sector Level) Sector Budget	Energy Conscious Enrollment	362,213,991	4,237	26.8%	Total Electric System Benefit from C&I programs	Electric System Benefit from C&I programs	0.210	\$847,491
	Energy Opportunities	438,700,985	4,710	32.3%				
	O&M	154,181,561	1,871	11.4%				
	PRIME	6,934,739	-	0.5%				
	Small Business	387,683,431	5,124	29.0%				
	Total	1,350,714,707	15,943					
	Savings Rate	\$ 0.08816 / kWh	\$ 895.21 / kW					
	Savings	\$ 119,081	\$ 11,084					
	(1) percent of target goal							
Net Electric System Benefit- C&I	Electric System Benefit less Program Costs			\$93,286		\$93,286	0.210	\$847,491
Energy Opportunities	1) Number of EO completed projects that incorporate advanced lighting technologies (e.g. LED and/or induction)					15% of the projects will incorporate LED and Induction lighting technologies	0.005	\$20,178
	2) Number of projects participating in the Comprehensive Initiative					8% of the completed projects will be comprehensive projects	0.005	\$20,178
	3) Conduct 3 Vendor/Contractor Information Updates					30% of signed contracts exceed code or are whole building performance track project	0.005	\$20,178
\$8,760	1) Number of new construction/major renovation projects that exceed the new construction State Energy Code baseline by at least 30 % or follow the whole building performance track.							
Energy Conscious Blueprint	2) Conduct joint training sessions with UI targeting the A/E and Design Community on a variety of subjects relating to Integrated Design, High Performance Buildings (including net zero buildings) and code issues.					Conduct 8 Joint Training Sessions with UI	0.005	\$20,178

(All Monetary Values in Thousands of Dollars)				
SECTOR Program	Performance Indicators	Incentive Metrics		
		Incentive Metric	Weight	
	Target Goal	Incentive		
Small Business	<p>Electric Saving LTRkWh : 387,663,431 Demand Saving kW : 5,124</p> <p>1) With UI, conduct joint training sessions for all SBEA vendors addressing high efficiency technologies, program delivery and assessments.</p> <p>2) SBEA vendors cross-market leads to all SBEA customers for EO and ECB programs, including leads from the equipment inventory.</p> <p>3) Number of projects participating in the "Comprehensive" Initiative. (i.e., 2 or more end uses)</p>	Energy savings included in appropriate sector level metric		
		Hold <b>4</b> joint meetings with UI and contractors	0.0025	\$10,089
		The contractors will provide <b>200</b> combined cross market referrals.	0.0025	\$10,089
O&M / RCx	<p>1) Conduct joint training sessions with UI targeting facility management through O&amp;M practices and procedures</p> <p>2) Number of Business Sustainability Challenge (BSC) training programs implemented - Track 2</p> <p>3) Number of completed Retro Commissioning Projects</p>	Number of small business projects		
		Completed Projects: <b>1,103</b>	0.0025	\$10,089
		Conduct <b>4</b> Joint Training Sessions with UI	0.003	\$12,107
CEEFF Fund Awareness	Increase Fund Awareness	<b>2</b> BSC Training Programs implemented	0.003	\$12,107
		<b>10</b> Completed RCx Projects	0.004	\$16,143
		Increase Fund Awareness	0.10	\$403,567
<b>Total of Incentives</b>			<b>1.000</b>	<b>\$4,035,671</b>

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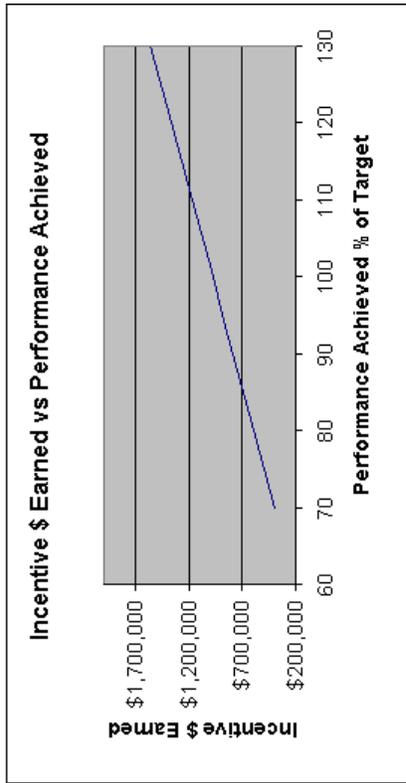
**THE UNITED ILLUMINATING COMPANY**  
**2011 Management Incentive Performance Indicators and Incentive Matrix**

Provided below is the 2011 Incentive Matrix with Performance Indicators. The weights applied to each of the individual and sector level metrics were developed in collaboration with ECMB consultants. The Utility Performance Incentive is \$979,619. This calculated is based on achieving 100% of all performance targets and earning a target incentive of 5% of C&LM budgets (not including ECMB costs, Audit Costs or Management Incentive). The actual incentive earned will be determined by the performance achieved in each of the Incentive Metrics identified below, based on the following Performance Index:

<u>Performance %</u>	<u>Pretax Incentive</u>	<u>Pre-tax Incentive</u>
70	2%	\$391,848
80	3%	\$587,771
90	4%	\$783,695
100	5%	\$979,619
110	6%	\$1,175,543
120	7%	\$1,371,467
130	8%	\$1,567,390

Total Original Budget\*      \$19,592,381

\*Does not include Incentive, ECMB costs and Audit



SECTOR Program	Performance Indicators			Incentive Metrics		
	Incentive Metric	Target Goal	Weight	Incentive Metric	Target Goal	Incentive
RESIDENTIAL All Residential Programs (Sector Level) Sector Budget	\$ 6,784,761	Residential Products & Services Lifetime kWh 119,885,500		Total Electric System Benefit from all Res programs	Electric System Benefit from all Res programs	\$139,596
		Residential Products & Services kW 2,368			Total Electric System Benefit: \$20,614,483	
		Homes Lifetime kWh 3,992,581				
		Homes kW 89				
		Home Energy Solutions Lifetime kWh 42,691,353				
		Home Energy Solutions kW 828				
		HES Income Eligible Lifetime kWh 39,133,248				
		HES Income Eligible kW 254				
		Total Residential Lifetime kWh 205,702,681				
		Total Residential kW 3,538				
		Present Value of Res Lifetime kWh \$0.0921				
		Present Value of Res Lifetime kW @ Customer Meter \$472.33				
		Total Res Lifetime kWh @ Present Value Factor \$18,943,430				
	Total Res kW @ Present Value Factor \$1,671,053					
	Total Electric System Benefit \$20,614,483					
	The Net Electric System Benefit from all Res programs \$13,829,722					
All Residential Programs (Sector Level)		Total Net Electric System Benefit \$13,829,722			\$13,829,722	\$139,596

SECTOR Program		Performance Indicators				Incentive Metrics		
		Target Goal	Weight	Incentive	Incentive Metric	Target Goal	Weight	Incentive
Residential New Construction	\$ 215,440	The Companies will develop in collaboration with the EEB by March 31, 2011 for 2009 IECC: 1) Lighting: Prepare the market for the 50% efficient lighting requirement by working with builders, electricians and suppliers to determine how to get CFLs installed in new homes 2) Duct Testing: Work with the HVAC industry and code officials to prepare for the duct testing requirements of the new code; and 3) Develop and deliver a series of at least six code trainings.	Energy savings included in appropriate sector level metric	Develop and implement a series of at least six code trainings statewide	0.01	\$9,796		
HES	\$ 2,601,313	Develop and implement a vendor benchmarking and delisting process BY 3/31/11 with the goal of increasing savings per participant by 25% by year end  Codes and Standards (HES and Retail Products)	Energy savings included in appropriate sector level metric  Develop benchmarking and delisting process  Codes and Standards	Develop benchmarking and delisting process  Develop and implement a comprehensive plan to increase local codes and standards on products including furnaces, set top boxes, electronics, spas, etc.	0.0125	\$12,245		
HES - Income Eligible	\$ 2,398,996	BPI Certification and Duct sealing training for Vendors Cost share with DSS DOE Wx Projects Promote the install of DSHPs and LED Fixtures with in HES LI Projects	Energy savings included in appropriate sector level metric Conduct trainings Customers served Increase installation of DSHP and LED fixture	25% of technicians dedicated to HES-LI 1,000 20 projects statewide	0.005 0.005 0.005	\$4,898 \$4,898 \$4,898		

SECTOR Program	Performance Indicators	Incentive Metrics			
		Incentive Metric	Target Goal	Weight	Incentive
Retail Products		Energy savings included in appropriate sector level metric			
	Increase CFL Socket Penetration from 23% to 36%	Increase CFL socket penetration	36%	0.10	\$97,962
EE Communities		Increase customer participation	50% of projects completed come from outside of the utilities	0.01	\$9,796
All Other Residential Programs		Electric savings			

SECTOR Program	Performance Indicators			Incentive Metrics		
	Incentive Metric	Target Goal	Weight	Incentive		
<b>COMMERCIAL &amp; INDUSTRIAL (C/I)</b>						
All C/I Programs (Sector Level) Sector Budget	\$ 9,257,186	154,179,870	0.21	\$205,720		
	Energy Blueprint Lifetime kWh	1,335				
	Energy Blueprint kW	103,793,257				
	Energy Opportunities Lifetime kWh	1,204				
	Energy Opportunities kW	7,275,728				
	O&M (RetroCx, BOC, RFP)	168				
	O&M RFP kW	75,045,272				
	Small Business Lifetime kWh	968				
	Small Business kW	340,294,128				
	Total C&I Lifetime kWh	3,675				
	Total C&I kW	\$0.0855				
	Present Value of C&I Lifetime kWh	\$704.66				
	Present Value of C&I Lifetime kW @ Customer Meter	\$29,100,214				
	Total C&I Lifetime kWh @ Present Value Factor	\$2,589,698				
	Total C&I kW @ Present Value Factor	\$31,689,912				
	Total Electric System Benefit	\$22,432,726				
	The net Electric System Benefit from all C&I programs:					
All C/I Programs (Sector Level) Sector Budget	Total Net Electric System Benefit from all C&I programs.	\$22,432,726	0.21	\$205,720		

SECTOR Program	Performance Indicators	Incentive Metrics			
		Incentive Metric	Target Goal	Weight	Incentive
Small Business	<p>Electric Savings LT kWh: 75,045,272</p> <p>Demand Savings kW: 968.0</p> <p>1) Conduct joint training sessions with CL&amp;P for all SBEA vendors addressing high efficiency technologies, program delivery and assessments.</p> <p>2) SBEA vendors cross market leads to all SBEA customers for EO and ECB programs, incorporating leads from the equipment inventory.</p> <p>3) Number of projects participating in the Comprehensive Initiative.</p>	<p>Energy savings included in appropriate sector level metric</p> <p>Number of small business participants</p>	<p>348 Projects</p> <p>Conduct 4 joint sessions with CL&amp;P</p> <p>SBEA vendors provide a minimum of 75 combined cross market referrals</p> <p>28 completed Comprehensive projects.</p>	<p>0.0025</p> <p>0.0025</p> <p>0.0025</p> <p>0.0025</p>	<p>\$2,449</p> <p>\$2,449</p> <p>\$2,449</p> <p>\$2,449</p>
Energy Conscious Blueprint	<p>1) Number of new construction/major renovation projects that exceed the new construction State Energy Code baseline by 30% or follow the whole building performance track.</p> <p>2) Conduct joint training sessions with CL&amp;P targeting the A/E and Design Community on a variety of subjects relating to Integrated Design and High Performance Buildings (including Net Zero buildings) and code issues.</p>		<p>30% of the signed projects</p> <p>Conduct 8 joint training sessions with CL&amp;P</p>	<p>0.005</p> <p>0.005</p>	<p>\$4,898</p> <p>\$4,898</p>
Energy Opportunities	<p>1) Number of EO projects that incorporate advanced lighting technologies such as LED or induction lighting</p> <p>2) Number of projects participating in the Comprehensive Initiative.</p> <p>3) Conduct 3 Vendor/Contractor information updates throughout 2010.</p>		<p>15% of the projects will incorporate LED and Induction technologies</p> <p>8% of the completed projects will be Comprehensive projects</p>	<p>0.005</p> <p>0.005</p>	<p>\$4,898</p> <p>\$4,898</p>
O&M RFP	<p>1) Conduct joint training sessions with CL&amp;P targeting effective facility management through O&amp;M practices and procedures.</p> <p>2) Increase the number of new customers participating in the Business Sustainability Challenge (BSC).</p> <p>3) Increase the number of new customers participating in the Retro-Commissioning Initiative (RetroCx).</p>		<p>Conduct 4 joint sessions with CL&amp;P</p> <p>Enroll 5 new participants in BSC.</p> <p>Enroll 2 new customers in RetroCx.</p>	<p>0.003</p> <p>0.003</p> <p>0.004</p>	<p>\$2,939</p> <p>\$2,939</p> <p>\$3,918</p>
All Other C&I Programs	<p>Electric Savings</p>	<p>Electric Savings include in appropriate sector level metric</p>			
Fund Awareness	<p>Increase Fund Awareness</p>	<p>Increase Fund Awareness</p>		0.100	\$97,962
Non-Electric Benefits	<p>Dollar savings associated with fossil fuel savings, water savings, maintenance savings, labor savings and any other identified benefit</p>	<p>\$500,000 in benefits</p>			
Total Incentive \$ Residential and C&I				1.0000	\$979,619

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## EXHIBIT V: PROGRAM EVALUATIONS

See attached Exhibit V.



# The EEB Program Evaluation Plan, 2011

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October 2010

## The **EEB** Program Evaluation Plan, 2011

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The EEB Evaluation Committee is pleased to present its Evaluation plan for the Department's consideration in Docket No. 08-10-02 and Docket No. 09-10-03. Also contained within its pages is the Evaluation Roadmap as ordered in the Department's decision for Docket 08-10-03.

The Evaluation plan is designed to provide cost effective studies of all the CL&M programs. Programs offering the most savings are expected to be evaluated most frequently. The plan integrates gas and electric programs and takes advantage of opportunities to cooperate with others in the Northeast that offer the same types of measures as does CT.

Most importantly, the plan provides for an independent evaluation process. It is critical that the programs be evaluated, measured, and verified in a way that provides confidence to the public at large that the savings are real and in a way that enables the Companies to use those savings estimates and other results with full confidence. There is a need to ensure both the reality and the perception of the independence and objectivity of EM&V activities.

Offered by the EEB Evaluation Committee;

Jeffrey Gaudiosi, Chair

Shirley Bergert

Jamie Howland

Richard Rodrigue

Richard Steeves

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# The EEB Program Evaluation Plan, 2011

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## Introduction

The Companies have a long history of providing efficiency programs to Connecticut energy consumers. An integral part of creating, delivering and maintaining quality programs is performing independent evaluations of programs and the markets they serve.

In 1998 the Energy Conservation Management Board (now the Energy Efficiency Board or EEB) was formed by Legislative Act PA 98-28 and charged under Section 33 (d) (1) with these responsibilities. *The Energy Conservation Management Board shall advise and assist the electric distribution companies in the development and implementation of a comprehensive plan, which plan shall be approved by the Department of Public Utility Control, to implement cost-effective energy conservation programs and market transformation initiatives. Each program contained in the plan shall be reviewed by the electric distribution company and either accepted or rejected by the Energy Conservation Management Board prior to submission to the department for approval.*

Since 1998, the EEB has worked closely with the Companies to ensure energy efficiency programs are comprehensive and cost-effective. Evaluations are expected to be relevant, independent, cost-effective and meet the needs of program administrators and planners. In 2005, The EEB formed an Evaluation Committee to work directly with an EEB Evaluation Consultant in overseeing evaluation planning and completion. In 2009, the Department's decision in Docket No. 08-10-03 ordered the EEB's Evaluation Committee and their consultant must be independent from and totally responsible for all aspects of the evaluation process.

The EEB and the Electric and Natural Gas Companies recognize the importance of conducting thorough, timely, and independent evaluations. The various types of evaluation studies exist to support continuous improvement in program offerings and to measure the results of those programs. The audiences for evaluation are many - regulatory bodies, the regional electric system operator (ISO-New England), utility management, and program planners and administrators all need the information gained through evaluation in order to make decisions about program efficacy. Evaluations can be used to increase participation and savings, reduce program costs, and fine-tune procedures. Appropriate evaluation can provide the information that program administrators need to enhance existing cost-effective programs or to take a non-cost-effective program and reconstitute it as a successful one.

Early in the program planning process and periodically thereafter, market assessments evaluate pre-existing market conditions and ascertain the extent to which efficiency programs are likely to influence customer adoption of measures and practices. Careful market assessments are conducted to identify effective ways to influence key market players to take efficiency actions and to increase the breadth

and depth of the actions taken. Baseline studies and market assessments examine overall market conditions related to energy efficiency products and services, including current standard practices, average efficiency of equipment, consumer purchasing practices, and identification of market barriers.

After the program is fielded, process evaluations are used to determine the efficacy of program procedures and measures. Process evaluations assess the interactions between program services and procedures and the customers, contractors, and businesses that participate in them. Process evaluation is essential to provide for improved program delivery, increased cost effectiveness and customer satisfaction.

Impact evaluations verify the magnitude of energy savings and identify sources for differences between projected and realized savings; reporting the results and value of energy efficiency programs to regulatory bodies, ISO-New England, utility management, and program planners and administrators. Cost effectiveness assessment is part of impact evaluation, pointing the way to improve, expand, or reassess program offerings. These evaluations are conducted under the supervision of the EEB to provide credible, unbiased and transparent results.

The evaluation process is a critical tool to measure energy savings, as well as other key attributes of each program, to allow optimum program design and careful management of consumer conservation funds.

## Guiding Principles

All members of the EEB recognize the importance of evaluation. Program evaluation provides a vital function in assessing program results and supporting continuous improvement in program performance. Evaluation should be used provide information to support decisions regarding the proper course of action for a program. The Department, EEB, Companies and other interested parties assess results and, when possible, point to areas where improvement would strengthen the program to achieve success.

It is critical that the programs be evaluated, measured, and verified in a way that satisfies regional jurisdictional requirements, provides confidence to the public at large that the savings are real, and enables the Companies<sup>26</sup> to use those savings estimates and other results with full confidence. There is a need to ensure both the reality and the perception of the independence and objectivity of Evaluation, Measurement and Verification (EM&V) activities.

Program evaluations, market assessments and other studies should be performed on a statewide basis to the maximum extent possible, while enabling, to the extent necessary, results at the Company level. It is recognized that circumstances could occur where a service territory specific or non-statewide

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<sup>26</sup> Whenever the terms “Company” or “Companies” are used, they should be understood to include only those Electric and Natural Gas Companies that offer the program being evaluated.

evaluation or study would be appropriate. Electric and natural gas program evaluation efforts should be fully integrated to the maximum extent possible. Because of the statewide focus of program evaluation in Connecticut, it is important to continue to coordinate program procedures, measures and data collection processes.

## **The EEB Evaluation Roadmap**

The Energy Efficiency Board (EEB) Evaluation Committee, which consists of non-utility EEB members, represents the EEB in the efficiency program evaluation process. The EEB Evaluation Committee and the EEB Evaluation Consultant are independent from the EEB program planning consultants and the Companies. The EEB Evaluation Consultant reports directly to the EEB Evaluation Committee. Absent payment through the CEEF, the Department requires that the EEB Evaluation Consultant have no financial or business ties to CL&P, UI, Yankee, SCG, CNG, any EEB members, or any other EEB consultants who plan the efficiency programs.

As directed in the Department's decision in Docket No. 09-10-02, the EEB Evaluation Committee, and specifically the EEB Evaluation Consultant, will provide leadership and execute the following responsibilities: evaluation planning, study development, contractor selection, project initiation, project management and completion, and finalizing the evaluation report. All RFPs will be issued by the EEB Evaluation Consultant and responses will also be sent to the EEB Evaluation Consultant. The EEB members and the Companies may comment on the scope of work, proposals that have been submitted, preferences for contractor selection. The Companies review the final work products conducted by third party evaluators and interim work products as needed during the course of execution of the evaluation study (see Page 7).

The Evaluation Committee may add to, reduce or alter the roles of the Evaluation Consultant and/or the Companies at its discretion at any time.

The EEB Evaluation Consultant communicates and coordinates with the EEB Evaluation Committee, interested EEB members, and the Companies, at all stages of planning, scoping and budgeting of evaluations. The EEB Evaluation Consultant schedules and coordinates all relevant stages of the evaluation process to address, as appropriate, the research design concerns of EEB Evaluation Committee and the Companies to assure the highest quality of studies and the best allocation of ratepayer dollars among the studies.

The EEB revised program evaluation road map is open and inclusive with the EE Evaluation Consultant communicating the process in the scheduled events of the EEB Evaluation Committee offers all EEB members, including the Companies, the ability to comment on every relevant step of the evaluation process. The EEB Evaluation Consultant posts and notifies all EEB Evaluation Committee meeting dates and conference calls in a way to allow all interested EEB members and members of the public to attend events, participate in calls, and provide input as appropriate.

The EEB Evaluation Committee will present the proposed evaluation plan to the Department after appropriate approvals. All members of the EEB have a vote in evaluation budget matters. The evaluation budget is a line item in C&LM programs and a budget item managed by the Companies, therefore the EEB, including the Companies, shall have a direct vote in setting the evaluation budget.

## Evaluation Process

The EEB Evaluation Committee and the EEB Evaluation Consultant lead the conduct and performance of the evaluation process. While the Companies no longer hold a primary role in evaluation, nonetheless their role is vital to the success of the programs. Program administrators are in a strong position to identify aspects of their programs (savings, market, process) that would benefit from evaluation activities. The Program administrators have intimate knowledge of program procedures and program data collection that are necessary to evaluation. Moreover, the Program Administrators have a strong interest in ensuring program improvements.

## Evaluation Planning

With consultation and input from the Companies, the EEB Evaluation Consultant determines which evaluations might be done, sets priorities, and establishes the evaluation budget in line with those priorities. These plans and budget are approved by the EEB Evaluation Committee. The final evaluation budget will be approved by vote of the EEB as part of overall EEF program budgeting.

The Evaluation Consultant:

- Provides Evaluation Committee with a package of programs evaluations, priorities and costs;
- When the evaluation is approved by the EEB Evaluation Committee, establishes resulting budget and submit to the full EEB for vote;
- Writes Evaluation Report to be filed at the time of the Companies' Annual Plan;
- Revises the plan periodically to reflect changes in opportunity, circumstances, remaining budget or other considerations.

The Companies, separately and together, provide important information that helps ensure that needed information is collected in a timely manner.

For evaluation planning, the Companies provide the EEB Evaluation Consultant with:

- Lists of studies each Company would like to be included in the evaluation plan;

- Suggested priorities for those studies that consider both the need for the information and availability of funds;
- Budgets that are sufficient to support the final plan as determined by the EEB Evaluation Committee and approved by the EEB;

## Study Development

In the study development phase, the EEB Evaluation Consultant, the EEB Technical Consultants and the Companies together develop the Scope of Work for the particular study to be undertaken. The Companies and Consultants provide the EEB Evaluation Consultant with suggested issues to be included in the scope and focus of the RFP. The Evaluation Consultant finalizes the RFP after review and written comment by the Companies and Technical Consultants. After the initial scoping process, the Evaluation Consultant requests suggestions for bidders to be included in the issuance as well as those who should not be included. The RFPs explicitly identify the EEB as the entity requesting proposals and the EEB evaluation consultant, who works on behalf of the EEB, as the contact for additional information and for receipt of the proposals.

## Contractor Selection Process

It is especially important the selection of 3rd party contractors be transparent. The EEB process for selection of an evaluation contractor is:

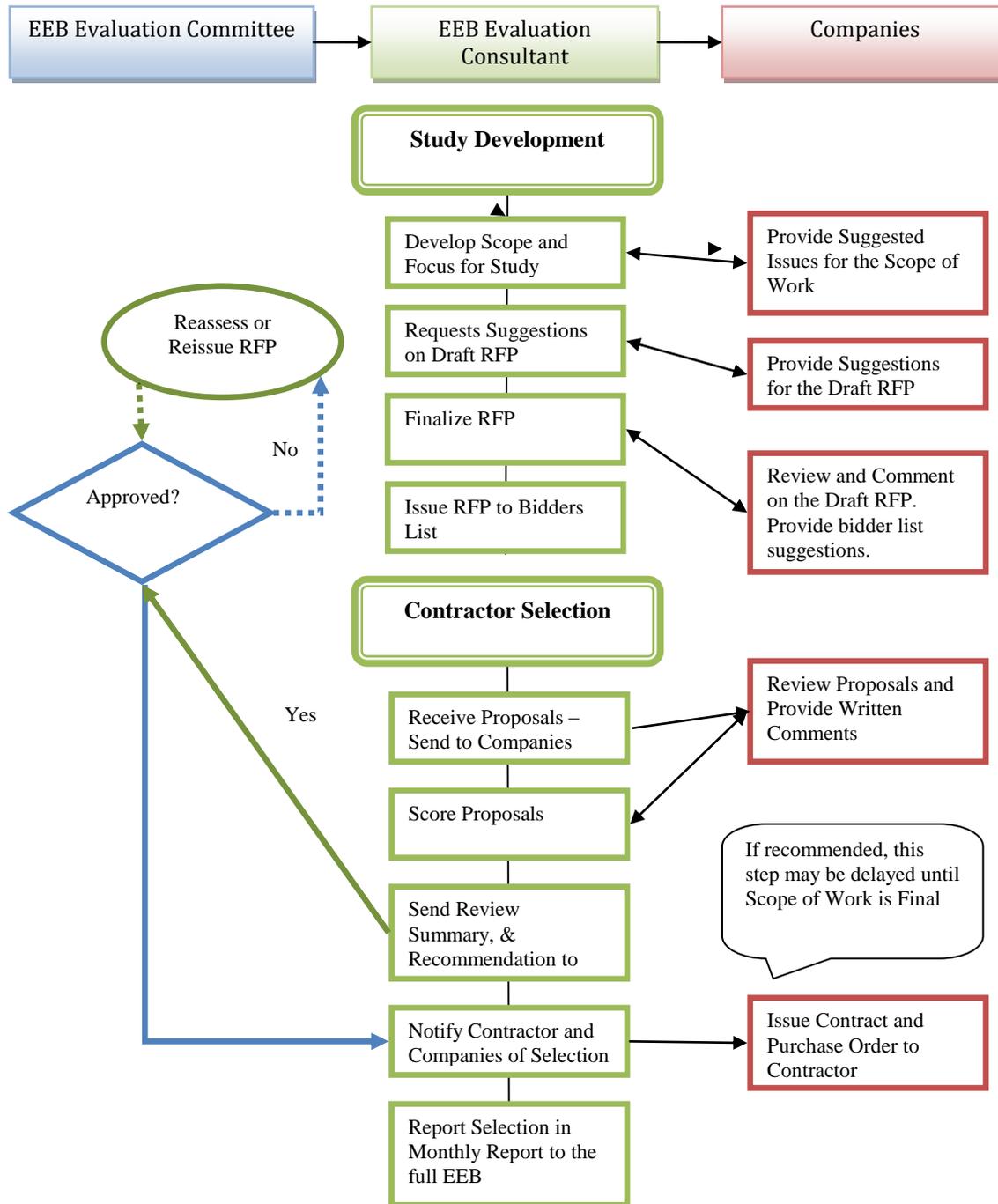
- The EEB Evaluation Consultant develops the scope of work with input and assistance from appropriate Company staff and EEB Program Consultants. The EEB evaluation Consultant develops the RFP and includes information for and instructions to contractors on procedures for conducting the evaluation. The Companies provide their Terms and Conditions documents for inclusion in the RFP.
- The EEB Evaluation Committee releases the RFP.
- Contractor proposals are submitted directly to the EEB Evaluation Consultant.
- The EEB Evaluation Consultant, EEB Consultants and a staff person or persons from each appropriate Company review the proposals. Any reviews will be provided to the EEB Evaluation Consultant in writing. The EEB Evaluation Consultant then scores the proposals based primarily on the proposed work plan and approach, the contractors' experience and qualifications, and the proposed price. The top 2 or 3 finalist proposals are identified.
- The EEB Evaluation Consultant sends a summary of the finalist proposals, proposal analysis, and the EEB Consultant recommendations to the EEB Evaluation Committee members.

- The EEB Evaluation Committee reviews the summary of the finalist proposals, the proposal summary, and the EEB consultant recommendations, focusing on the top 2 or 3 finalist proposals, and selects the evaluation contractor.
- A public summary of the basis for selecting the winning contractor is drafted by the EEB Evaluation Consultant and approved by the EEB Evaluation Committee. Each company's purchasing agents retain this summary as the basis for the bid award.
- The EEB Evaluation Committee notifies the winning contractor and the other proposers.
- The Companies then issue the contract and execute Purchase Orders.

EEB Evaluation Committee reports to the full EEB at the regularly scheduled EEB meetings. The report shall include information on the evaluation contractors selected since the prior EEB meeting.

Figure 1 provides a schematic describing the Study Development and Contractor Selection Processes.

Figure 1: Study Development and Contractor Selection Processes



## **Project Initiation:**

### **Kick-off Meeting**

The EEB Evaluation Consultant begins the project initiation process by organizing the kick-off meeting. The EEB Evaluation Consultant organizes date, time, location and needed personnel for the meeting, apprising the Companies of the final schedule. Representatives of the Companies may attend kick-off meetings, typically by phone, since meetings will be held either in the presence of the Evaluation Consultant or by telephone. This requirement is set in order to ensure the selected Contractor understands the project management structure. The Companies may raise issues relative to the scope of work and will describe data availability and format to the Contractor. These discussions may be held during or subsequent to the kick-off meeting. The Evaluation Consultant will supply the EEB Evaluation Committee and the Companies with notes summarizing the meeting as provided by the Contractor.

### **Development of the Final Work Plan**

The kick-off meeting may identify scope changes to improve accuracy, align with data availability, or reduce costs. These scope changes may impact the budget as well as changing the workplan. The Companies will review potential changes to the workplan and provide comments in writing. The Evaluation Consultant will consider these comments and then finalize the workplan with the selected evaluation Contractor. The final workplan and budget will be provided to the Companies for incorporation into the project Purchase Orders. See Figure 2.

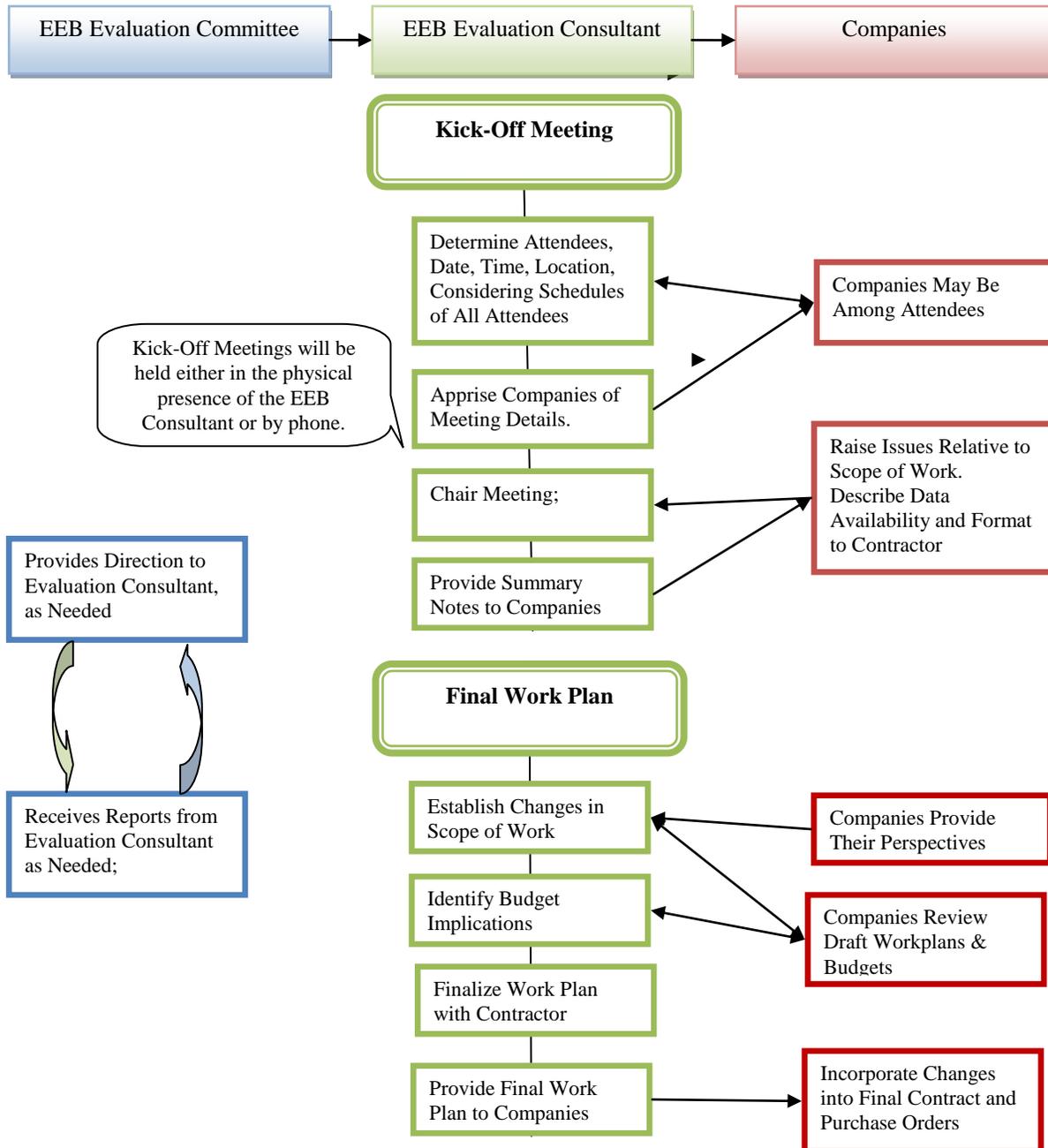
## **Project Management and Completion**

The EEB Evaluation Consultant leads the project management process (Figure 3) and is responsible for determining what information needs to be developed with the Companies. In particular the Consultant will:

- Work with the Contractor to resolve issues and expedite solutions.
- Review and approve all deliverables and milestones.
- Review all interim work products and any issues of importance that may impact the results or cost of the evaluation. Provide initial draft report to the Companies for comment.
- Collect all communications from the Contractor and Company representatives and route between them, as needed.
- Review and Approve invoices for payment by the Companies from the CEEF.

- Provide the full EEB evaluation schedules and internal project deadlines through monthly reports to the Board.

Figure 2: Project Initiation Process



The Companies act as CEEF contract administrators and conduits for program information. Specifically, the Companies:

- Institute administrative actions necessary to support contract maintenance and payment.
- Issue payments to the independent evaluation contractors on approval of the EEB Evaluation Consultant.
- Provide required program, billing, customer data and any other information needed for the completion of the study.
- Provide materials, including stationary, envelopes, incentive checks and more as needed.

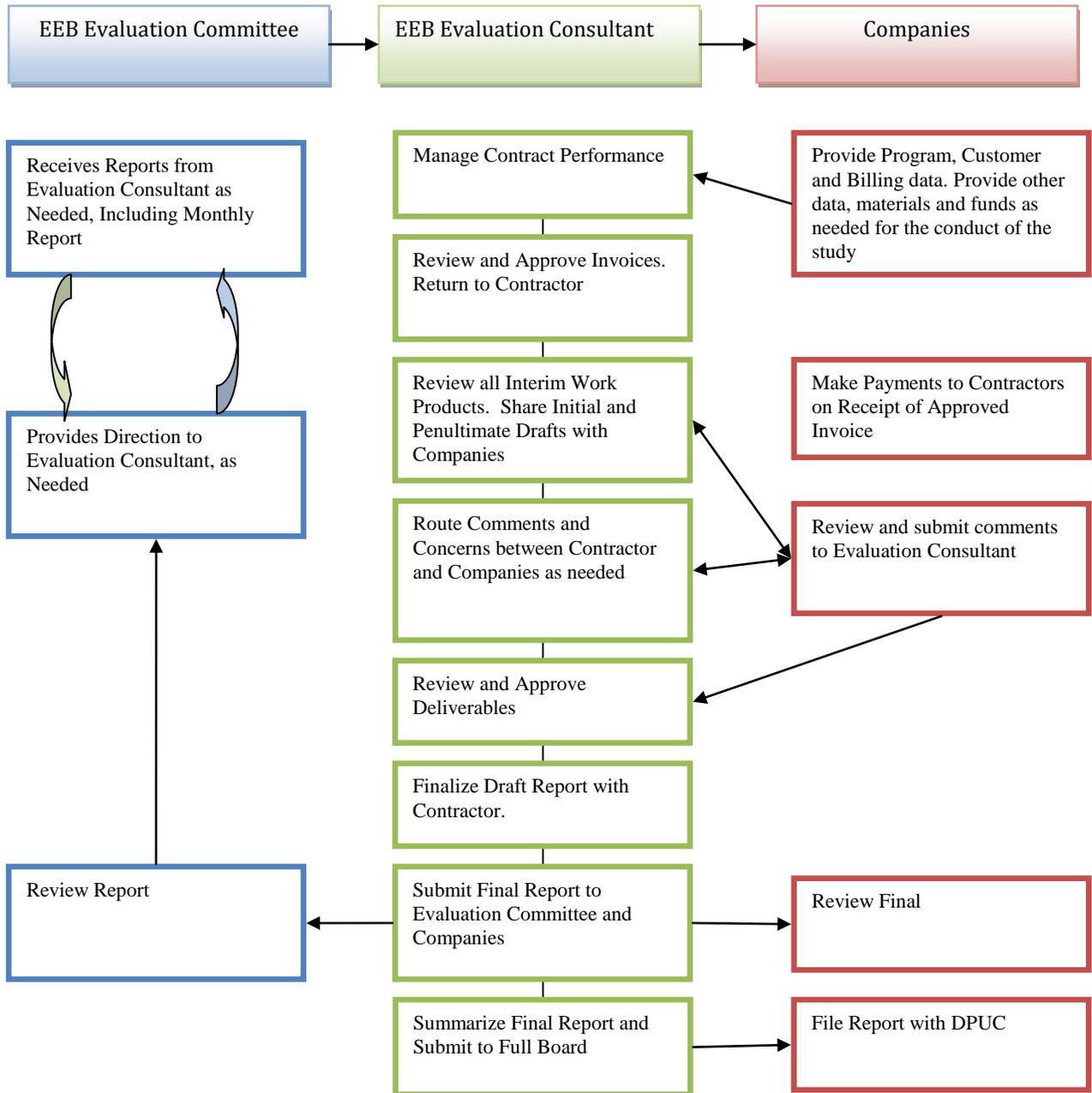
As the project reaches its conclusion, The Companies review and provide written comment on the initial and penultimate drafts. They may also review other interim drafts as needed. The Evaluation Consultant will consider the Company comments and work with the Contractor to finalize the evaluation report. The Evaluation consultant will then summarize the final report and submit that summary with the final report to the EEB Evaluation Committee.

The Committee will then issue the reports to the Companies, EEB members and the Program Technical Consultants for written comment that shall become part of EEB's public record. The EEB Evaluation Committee is responsible for all evaluation products, both interim and final. Neither the third party contractor nor the Companies may release preliminary or final data without prior approval from the EEB Evaluation Committee or its designee.

## **Regional Studies**

The EEB evaluation consultant shall represent the EEB in all regional evaluation studies, either with the EM&V Forum or with individual states and groups of states. To the extent applicable, the EEB evaluation consultant and the Companies shall exercise responsibilities in an equivalent fashion as those identified in this document in all regional studies. For evaluations where Connecticut is the minority participant in the study, the EEB evaluation consultant will represent the EEB's interests and contribute to all processes (including scoring and selection) as appropriate based on the level of participation and any processes governing the study outlined by the participating parties. The EEB Evaluation consultant will assume the leadership role for the EEB in all discussions and negotiations involving the regional parties and bring any substantial issues before the Evaluation Committee.

Figure 3: Project Management and Completion Process



## Evaluation Studies 2010

In planning which and how many evaluations to conduct each year, the EEB Evaluation Committee considers many factors, including but not limited to: the magnitude of cost and energy savings associated with the program, how recently comparable studies were done, needs expressed by program administrators, requirements of outside organizations, market conditions, recent or planned program changes, and any gaps identified. The EEB also works in a broad regional manner when planning evaluation activities for the up-coming program years. Through collaboration with regional agencies and utilities with similar interests, the EEB takes full advantage of opportunities to gather information in the most cost-effective manner.

Occasionally, opportunities to participate in evaluation studies are unforeseen and, therefore, are not included in the planning process. If an unplanned opportunity proves to be in the best interest of Connecticut customers, the EEB Evaluation Committee will commit resources to those efforts as well. There are also occasions when a planned evaluation study no longer offers the value expected. The EEB Evaluation Committee assesses those conditions with the assistance of the Evaluation Consultant and determines whether changes should be made to the Program Evaluation plan throughout the year. Table 1 indicates evaluation studies either completed or underway in 2010.

Table 1: Evaluation Studies During 2010

<b>Residential</b>	<b>Commercial &amp; Industrial</b>
CFL Saturation and NTG	Business Sustainability Challenge Impact
Residential Central A/C Replacement Impact	Energy Opportunities Impact
Home Energy Solutions	Energy Conscious Blueprint Impact and Process
Limited Income (WRAP / Helps) Impact	Survey of Studies on C&I Load Shapes *
Incremental Cost Study*	C&I Load Shape Unitary HVAC*
Residential Behavior Pilot	C&I Loadshape Lighting*
<b>Non Sector-Specific Studies</b>	
Market Awareness of the Connecticut Energy Efficiency Fund	Common Methods for Assumptions & Algorithms*
M&V Protocol Modification for ISOs*	M&V Terms & Definitions*

\* EM&V Forum

A New England Regional Avoided Cost study was conducted in 2009 to update the avoided costs used for program planning, cost-effectiveness analysis, and reporting. The regional avoided cost study is conducted jointly every two years. While the avoided cost study is not an evaluation project, the Connecticut share of the cost for this important regional study is typically included in the evaluation budget. Because estimates are not yet available, funds for this study will need to be allocated to this study from other sources.

## Evaluation Studies 2011

Table 2 indicates evaluation studies being considered for 2011. For 2011, the EEB Evaluation plans increase evaluation activities and budgets. Many of the proposed studies are needed to provide statistically accurate demand and energy savings to support the Companies' bids in ISO-NE's Forward Capacity Market. Some will support development of programs that extend the depth and breadth of savings. As is true every year, the 2011 evaluation budget is targeted to the highest-priority studies, in order to maximize value per evaluation dollar spent. This evaluation listing is tentative; the final studies undertaken will depend – among other factors - on opportunities to participate in evaluation studies through regional cooperation, time and budget issues, new studies required and changes in program design.

Prices provided are estimates and may differ substantially from actual bids. The overall budget will not be increased without a vote from the Board.

Table 2: Tentative Study Selection for 2011

Residential		Commercial & Industrial		TOTAL \$
<b>REQUIRED</b>				
Res Behavior Pilot	\$ 150,000	Business Sustainability Challenge	\$ 150,000	
Res Lighting Saturation - price includes repeat at year end	\$ 275,000			
				\$ 575,000

<b>HIGHER PRIORITY</b>			
Ground Source Heat Pumps	\$ 300,000	PSD Review	\$ 150,000
Res Measure Life and Persistence	\$ 250,000	Behavior w/ Small Bus	\$ 100,000
Res New Construction	\$ 200,000	Multifamily Opportunities	\$ 225,000
Gas Water Heater Early Replacement/ On-demand units	\$ 225,000	C&I Lighting Assessment	\$ 220,000
		Retrocommissioning	\$ 150,000
		Small B Impact Cooling and Refrigeration	\$ 225,000
		Chiller Market Assessment	\$ 200,000
			\$ 2,245,000
<b>LOWER PRIORITY</b>			
Specialty Lighting Net to Gross	\$ 300,000	C&I Measure Life	\$ 250,000
AC Early Replacement	\$ 250,000		
			\$ 800,000
<b>TOTALS</b>			
<b>Required</b>			\$ 575,000
<b>Higher Priority</b>			\$ 2,245,000
<b>Lower Priority</b>			\$ 800,000
<b>EM&amp;V Forum</b>			\$ 163,000
<b>GRAND TOTAL</b>			\$3,783,000

Table 3: Approximate Cost Share Breakdown for Evaluation Studies

Studies and/or Tasks	CL&P	UI	CMEEC	Yankee	SCG	CNG
Electric Only	73%	21%	6%			
Gas Only				38%	33%	29%
Electric and Gas	55.5	16%	4.5%	9%	8%	7%

## EM&V Forum Evaluation 2011

Projects initiated within the Regional EM&V Forum also affect evaluation activities in 2011 and beyond. The Forum allocates costs and determines what projects to conduct in consultation with its membership. Nine states and the District of Columbia participate in the Forum, but not all subscribe to every study commissioned by the Forum. Likewise, Connecticut participates in most of the Forum studies but may not participate in studies that do not provide relevant or useful information for Connecticut purposes. The EM&V Forum project list for 2011 has not yet been developed.

## Conclusion

The EEB Evaluation Committee takes its responsibility for program evaluation very seriously. It is critical that the programs be evaluated, measured, and verified in a way that provides confidence to the public at large that the savings are real and in a way that enables the Companies to use those savings estimates and other results with full confidence. There is a need to ensure both the reality and the perception of the independence and objectivity of EM&V activities. We are convinced that the plan outlined in this document will provide these critical studies with objectivity, with excellence, and with the best interests of Connecticut rate payers in the forefront.