AGENDA

Joint Committee of the Connecticut Energy Efficiency Fund and the
Clean Energy Finance and Investment Authority
865 Brook Street, Rocky Hill, CT 06067

Wednesday, December 5, 2012 – Regular Meeting
12:30-2:00 p.m.

1. Call to Order

2. Public Comments – 5 minutes

3. Approval of meeting minutes for September 5, 2012* – 5 minutes

4. Program Updates – 60 minutes
   - Comments from Board Members of CEEF and CEFIA
   - Residential Sector Programs
   - Commercial and Industrial Sector Programs
   - Other Programs

5. Marketing Program Update – 15 minutes
   - Energize CT Update
   - Solarize Connecticut Update

6. Next Step Action Items – 5 minutes

*Denotes item requiring Committee action

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Dial +1 (619) 550-0003
Access Code: 763-559-055 Meeting ID: 763-559-055
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Next Regular Meeting: TBD
Public Utility Regulatory Authority in New Britain, CT

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Clean Energy Finance and Investment Authority

Board Member Comments

Joint CEEF-CEFIA Meeting

December 5, 2012

Energy Smart Solutions
Megacommunities Stakeholder Report

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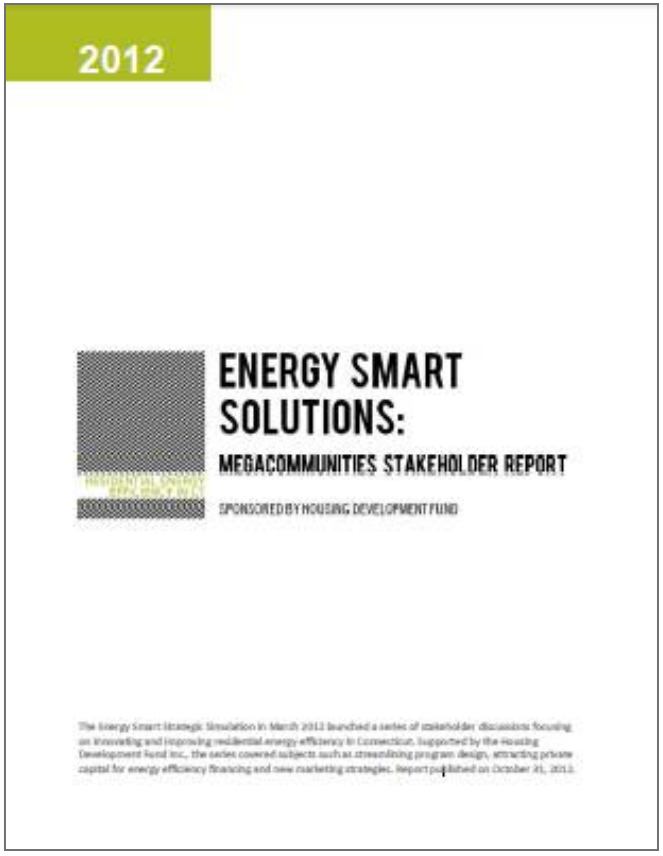
Stakeholder Process – between August through October of 2012, over 60 participants were involved to "bring input to the state's planning process around residential energy efficiency programs"

Committees – program design, marketing and finance. Bryan Garcia was chair of the finance committee which included 22 participants from 16 organizations.

Report – focus on three key constituents – contractors, customers and capital providers.

Recommendations – Provides recommendations for the EEB's C&LM plan and the CES.



REFERENCES
Energy Smart Solutions: Megacommunities Stakeholder Report (October 2012) by the Housing Development Fund

Energy Smart Solutions
Financing Committee Process

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Public Policy Review – what are existing policies for residential (i.e. replace inefficient heating equipment §51 and 116 of PA 11-80)

Estimate of Capital Requirements – estimate capital needed to achieve policy target (i.e. $2.2 billion needed to finance the equipment replacement per the draft comprehensive energy strategy)

Current Product Review – assessed CHIF performance

Best Practice Overview – invited 4 of the "Top 5" ACEEE states to present their financing programs to identify best practices (i.e. program characteristics, process, and performance) – see Appendix D for CA, ME, MA, MI, NY, OR.

Customer Acquisition – worked with the marketing committee to determine how financing programs can be positioned to maximize customer acquisition

Recommendations – identified findings and made recommendations through the report

Energy Smart Solutions
Key Recommendations

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Build Capacity – build contractor capacity for sales, marketing, administration, expansion, etc. by working with DECD's Small Business Express Program (Program Design Committee)

Open Market – provide financing to support an expanded set of qualified contractors (Finance Committee)

Credit Union Pilot – provide limited credit enhancements to support a credit union financing pilot program (Finance Committee)

Data Collection – collect and analyze energy savings and loan performance data (Finance Committee)

Interest Rates – pursue a sustainable interest rate that is competitive with the market and that minimizes the use of ratepayer or public sector capital; reserve lower interest rates for underserved markets (i.e. low income) or as special offers to catalyze a market (Finance Committee)

Pilot Programs to Finance Energy Upgrades

Commissioner Esty Letter

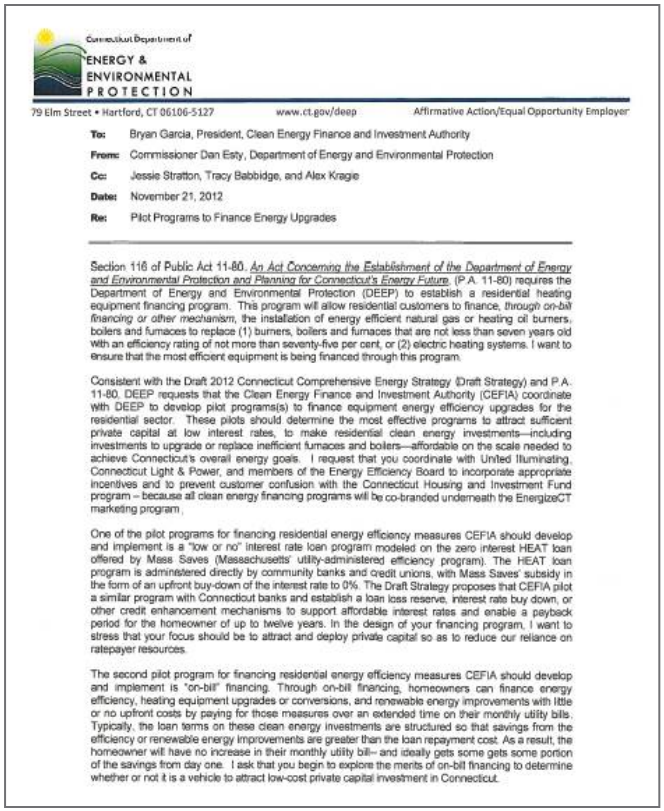
CLEAN ENERGY FINANCE AND INVESTMENT AUTHORITY

Section 116 of PA 11-80 – tasks DEEP to establish residential heating equipment financing program through on-bill or other mechanism.

Request – develop two pilot residential financing programs:

- **Credit Unions** – attract private capital and to reduce reliance on ratepayer resources
- **On-Bill Financing** – explore the merits of OBF to attract low-cost private capital
- **ARRA-SEP Funds** – DEEP-CEFIA agreement on credit enhancements should be used to support these programs

Coordinate – with EDCs and members of EEB to incorporate appropriate incentives, prevent customer confusion with CHIF loan, and co-brand with EnergizeCT.



Connecticut Department of ENERGY & ENVIRONMENTAL PROTECTION

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To: Bryan Garcia, President, Clean Energy Finance and Investment Authority

From: Commissioner Dan Esty, Department of Energy and Environmental Protection

Cc: Jessie Stratton, Tracy Babbidge, and Alex Kragie

Date: November 21, 2012

Re: Pilot Programs to Finance Energy Upgrades

Section 116 of Public Act 11-80, *An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut's Energy Future*, (P.A. 11-80) requires the Department of Energy and Environmental Protection (DEEP) to establish a residential heating equipment financing program. This program will allow residential customers to finance, *through on-bill financing or other mechanism*, the installation of energy efficient natural gas or heating oil burners, boilers and furnaces to replace (1) burners, boilers and furnaces that are not less than seven years old with an efficiency rating of not more than seventy-five per cent, or (2) electric heating systems. I want to ensure that the most efficient equipment is being financed through this program.

Consistent with the Draft 2012 Connecticut Comprehensive Energy Strategy (Draft Strategy) and P.A. 11-80, DEEP requests that the Clean Energy Finance and Investment Authority (CEFIA) coordinate with DEEP to develop pilot programs(s) to finance equipment energy efficiency upgrades for the residential sector. These pilots should determine the most effective programs to attract sufficient private capital at low interest rates, to make residential clean energy investments—including investments to upgrade or replace inefficient furnaces and boilers—affordable on the scale needed to achieve Connecticut's overall energy goals. I request that you coordinate with United Illuminating, Connecticut Light & Power, and members of the Energy Efficiency Board to incorporate appropriate incentives and to prevent customer confusion with the Connecticut Housing and Investment Fund program – because all clean energy financing programs will be co-branded underneath the EnergizeCT marketing program.

One of the pilot programs for financing residential energy efficiency measures CEFIA should develop and implement is a "low or no" interest rate loan program modeled on the zero interest HEAT loan offered by Mass Saves (Massachusetts' utility-administered efficiency program). The HEAT loan program is administered directly by community banks and credit unions, with Mass Saves' subsidy in the form of an upfront buy-down of the interest rate to 0%. The Draft Strategy proposes that CEFIA pilot a similar program with Connecticut banks and establish a loan loss reserve, interest rate buy down, or other credit enhancement mechanisms to support affordable interest rates and enable a payback period for the homeowner of up to twelve years. In the design of your financing program, I want to stress that your focus should be to attract and deploy private capital so as to reduce our reliance on ratepayer resources.

The second pilot program for financing residential energy efficiency measures CEFIA should develop and implement is "on-bill" financing. Through on-bill financing, homeowners can finance energy efficiency, heating equipment upgrades or conversions, and renewable energy improvements with little or no upfront costs by paying for those measures over an extended time on their monthly utility bills. Typically, the loan terms on these clean energy investments are structured so that savings from the efficiency or renewable energy improvements are greater than the loan repayment cost. As a result, the homeowner will have no increase in their monthly utility bill– and ideally gets some gets some portion of the savings from day one. I ask that you begin to explore the merits of on-bill financing to determine whether or not it is a vehicle to attract low-cost private capital investment in Connecticut.

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Residential and Commercial Program Updates

Joint CEEF-CEFIA Meeting

December 5, 2012

Residential Solar Investment Program
Rebate Update

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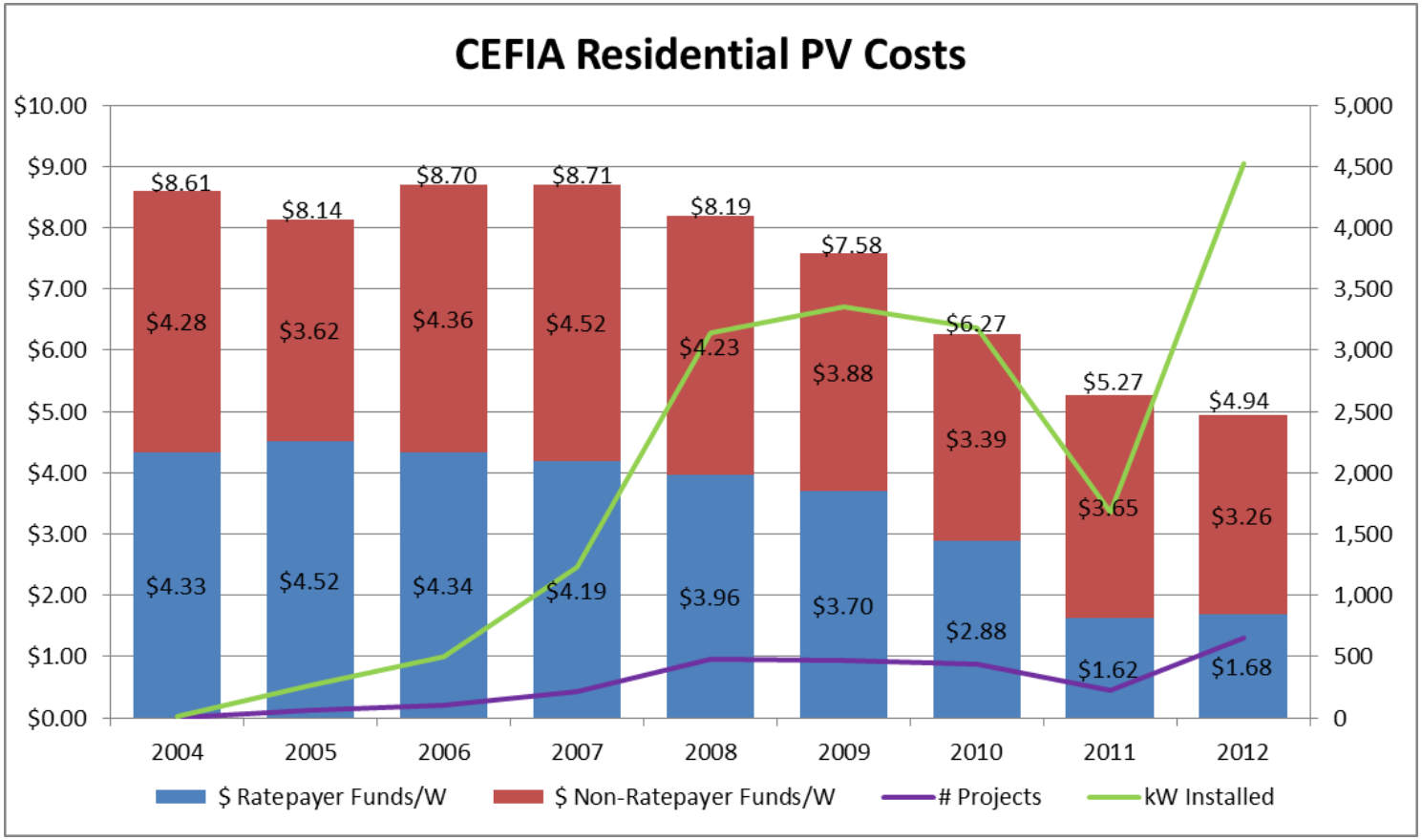

Increasing the amount of rooftop solar PV deployed per dollar of ratepayer funds at risk

Residential Financing Programs
Program Update

CLEAN ENERGY
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Program	Partners	Launch Date	ARRA-SEP LLR/IRB*	CEFIA Senior or Sub-Debt Loan	Private Capital	Interest Rate	FICO Score	Leverage of CEFIA and ARRA-SEP **	Estimated Energy Produced and Saved
Solar PV and Solar Hot Water Systems Lease/PPA	Tax equity, commercial debt, servicer, DEEP, DOE, PV and SHWS installers, CEEF	March 2013	$3.50 MM LLR	$9.50 MM	$50.00 MM	Energy Price (15 & 20-year term)	640+	3.8-14.3	11.0 MW (solar PV) 5,000 MMBtu (SHWS)
Solar Loan (Pilot)	Institutional investor, Sungage, DEEP, DOE, PV installers, CEEF	January 2013	$0.30 MM LLR	$0.50-$3.00 MM	$4.50 MM	6.99-10.99% (10, 15 & 20 year term)	680+	1.4-15.0	1.7 MW
Competitive Solar PV Loan (Pilot) – Capital Competition	Solar PV Installer(s) and/or Financier(s)	January 2013	$0.00 MM	$1.00 MM**	Unknown	2.00% (20 year term)	TBD	MAX	Unknown
Multifamily Energy Loan Fund (Pilot)	Winn, LISC, HUD, CHFA, CEEF	January 2013	$0.00 MM	Up to $2.00 MM	Up to $6.00 MM	5.00-7.00% (10-year term)	TBD	3.0-MAX	50,000 MMBtu
Cozy Loans – a Low Income Energy Loan Fund (Pilot)	HDF, CHIF, DEEP, DOE, OFN, community bank(s), CEEF	January 2013	$360,000 LLR and $50,000 IRB	$0.00 MM	$2.50 MM	4.50% (10-year term)	TBD	6.1	25,000 MMBtu
Equipment Replacement and Clean Energy Loan (Pilot)	Financial institutions, DEEP, DOE, UI, CL&P, CMEEC, Next Step Living, CEEF, and other EERE installers	January 2013	$2.50 MM	$0.00 MM	$27.80 MM	4.49%-6.99% (5, 7, 10, & 12 year term)	640+	11.1	210,000 MMBtu
Total			**$6.71 MM**	**$13.00-$15.00**	**$90.80 MM**			**4.2-13.6**	**12.7 MW 290,000**

* ARRA SEP funds are not ratepayer capital. LLR – Loan Loss Reserve; IRB – interest rate buy down.
** Minimum based on private capital divided by CEFIA and ARRA-SEP funds combined. Maximum based on private capital divided by ARRA-SEP funds – CEFIA funds are expected to be returned as they are loan funds.

Credit Union Pilot Financing Program
Equipment Replacement

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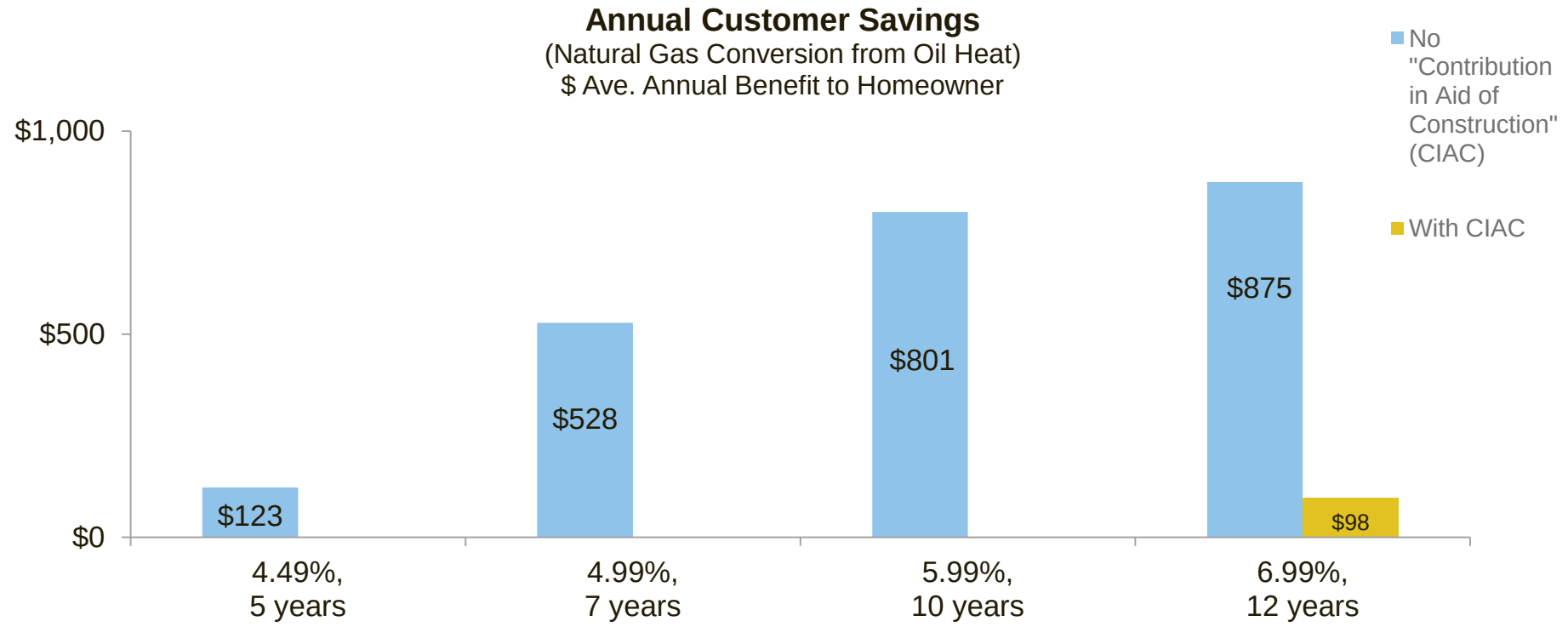
In line with Chapter 4 of CT's Draft Comprehensive Energy Strategy, CEFIA has come up with a set of financing options to **enable fuel switching** for Connecticut homeowners that uses private capital to deliver on the promise of "gas choice" and **immediate savings** called for in the CES



Commercial and Industrial Financing Programs
Program Update

CLEAN ENERGY FINANCE AND INVESTMENT AUTHORITY

Communities – Bridgeport, Durham, Hartford, Middletown and Norwalk have signed C-PACE agreement with CEFIA. We are actively working in 25 other cities and towns – expect at 10 onboard by January.

Capital Providers – completed RFQ for capital providers for the program resulting in the approval of eight financiers (i.e. People's Bank, Citigroup, Wells Fargo, Ameresco, and others)

Third-Party Administrator– completed RFP to provide project management, technical and financial oversight, and coordination with CEFIA with Buonicore Partners – including Celtic Energy and Sustainable Real Estate Solutions (all from Connecticut)

Program Guidelines – released program guidelines and are now actively evaluating (not soliciting) deals.

Launch – expect to launch with the Governor in January

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Marketing Program Updates

Joint CEEF-CEFIA Meeting

December 5, 2012

Solarize Connecticut
Update

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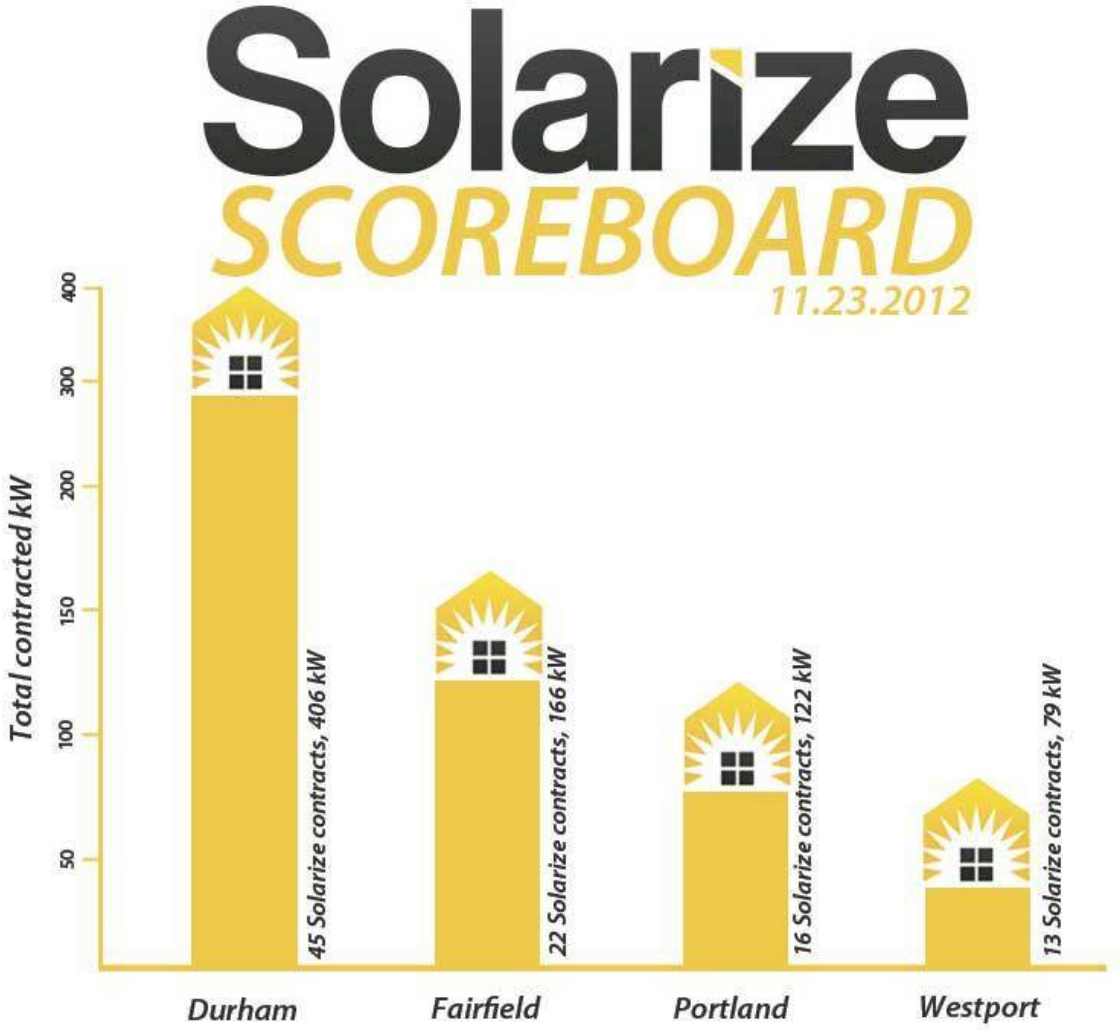

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Subject to changes and deletions

Clean Energy Finance and Investment Authority and
Connecticut Energy Efficiency Fund
Joint Advisory Committee Meeting
DRAFT Minutes – Special
Wednesday, December 5, 2012

A special meeting of the **Clean Energy Finance and Investment Authority ("CEFIA") and the Connecticut Energy Efficiency Fund ("CEEF")** (the "Joint Advisory Committee") was held on December 5, 2012, at the office of the CEFIA, 865 Brook Street, Rocky Hill, CT.

1. Call to Order: Bryan Garcia called the meeting to order at 12:40 p.m. Joint Advisory Committee members participating: Ron Araujo (CEEF Administrator – CL&P), Bryan Garcia (CEFIA Board), Norma Glover (CEFIA Board), Jaime Howland (CEEF Board), Dave Ljungquist (CEFIA Staff), Pat McDonnell (CEEF Administrator—UI), Rick Rodrigue (CEEF Board), and Bob Wall (CEFIA Staff) by phone.

Others: Mackey Dykes (CEFIA), David Goldberg (CEFIA), Bert Hunter (CEFIA), Alex Kragie (DEEP), and Jeff Schlegel (CEEF Consultant).

2. Public Comments:

Ms. Glover mentioned an article written on November 30, 2012 in *The Hartford* Courant called "Plainville Wood-Panel Maker Hailed as Model for Manufacturing Efficiency". The article referred to the company as a model for manufacturing efficiency and described the programs the company used through the Connecticut Energy Efficiency Fund to become more energy efficient.

3. Approval of Meeting Minutes:

Mr. Garcia asked the Joint Advisory Committee members to consider the minutes from the September 5, 2012 meeting.

> **Upon a motion made by Mr. Rodrigue, seconded by Ms. Glover, the Joint Advisory Committee members voted unanimously in favor of approving the minutes from the September 5, 2012 meeting as presented.**

4. Program Updates:

Mr. Howland spoke about the written letter provided by the Connecticut Energy Efficiency Fund to CEFIA as a follow-up on the Energy Efficiency Board letter dated November 29 that was provided to the CEFIA Deployment Committee on November 30, 2012 about the "Equipment Replacement and Clean Energy Loan Pilot." He summarized some of the things that are key to an effective financing program, including

the following four financing criteria: 1) the financing process must be convenient from a customer perspective and streamlined from a programmatic perspective; 2) the product must be attractive and economical from a customer perspective; 3) the product should be economical from a program perspective; and 4) the product must meet the needs of targeted market segments. Mr. Howland urged CEFIA to keep the cost of capital as low as possible and program as flexible as possible and have the ability to make adjustments if necessary. Mr. Hunter noted that CEFIA has received positive feedback about the proposed interest rates thus far from the credit unions. He mentioned that at the November 30 CEFIA Deployment Committee meeting, the Deployment Committee voted to expand the program to serve all the territories throughout the state. Mr. Howland indicated that the Energy Efficiency Board hopes the interest rates will be below the "not-to-exceed" rates identified in the program description. Some concerns were expressed that lower FICO scoring applicants may not qualify under the program. Mr. Garcia talked about the different scores and how those scores are considered by the credit unions. A discussion ensued on some of the challenges with trying to incent the lending institutions to reach the lower scoring households while also trying, to the extent possible, not to use ratepayer funds for the program. Mr. Garcia mentioned that CEFIA will have other programs specifically designed for low-income households. In response to a question, it was noted that one of CEFIA's goals is to have complementary programs with others and not to duplicate funding or efforts. Mr. Howland reiterated the need to negotiate the lowest rates possible and to develop a program that is better than programs currently available to consumers. In response to a question, Mr. Hunter stated that CEFIA looked at different programs and models and tried to take the best elements from each of the programs to develop CEFIA's program.

Mr. Garcia discussed the Residential Clean Energy Financing Program, noting that $2,500,000 in loan loss reserve funds is anticipated to attract about $28,000,000 of private capital from credit unions. He talked about the Residential Energy Efficiency and Equipment Replacement Loan Program. A discussion ensued on the vendor qualification process. In addition to the CEFIA- approved and public utility-approved vendors, Mr. Garcia noted that a process will have to be developed to determine how to allow other vendors to qualify and participate. Mr. Hunter described the structure of the loan loss reserve.

Mr. Garcia spoke about the Energy Smart Solutions mega-communities stakeholder process that was held between August and October 2012. The purpose of the process was to bring input to the state's planning process around residential energy efficiency programs. Three committees were formed—program design, marketing and finance. The finance committee was chaired by Mr. Garcia and included participants from 16 different organizations. The stakeholder process resulted in the issuance of a report that focuses on three key constituents—contractors, customers and capital providers. Mr. Garcia stated that report provides recommendations for the Energy Efficiency Board's Conservation Load Management Plan and the Draft Comprehensive Energy Strategy ("CES"). He reviewed the financing committee process and key recommendations. The finance committee looked at seven (7) states that were implementing residential energy efficiency financing programs, four of which are in the

"Top 5" best ranked ACEEE report card states. These states included California, Connecticut, Maine, Massachusetts, Michigan, New York, and Oregon. The report provides a thorough review of each financing program characteristics, process, and performance.
Mr. Garcia passed out a letter from Commissioner Esty to him, which requested that CEFIA be charged by DEEP to develop two pilot residential financing programs that attract private capital investment – a credit union program and an on-bill repayment program. CEFIA will use the repurposed AARA-SEP funds from DOE and DEEP for credit enhancements to support the programs. CEFIA will coordinate with the electric distribution companies and members of the Energy Efficiency Board to incorporate the appropriate incentives and prevent customer confusion with CHIF loans and co-brand with EnergizeCT.

Mr. Garcia mentioned that CEFIA will be submitting formal comments to DEEP on the CES.

Mr. Araujo talked about the Home Energy Solutions Program and stated that the vendor selection process is being completed, and 30 vendors will be selected for 2013. The vendors selected will have a one-year contract with the option to renew in 2014. Anyone not selected may have the ability to perform the services but will not be paid up front under the program. Mr. Araujo explained that expanding the vendor pool for 2013 is expected to drive the costs down.

Mr. Araujo provided the third quarter report on programs for CL&P, noting that the total budget for spending through the third quarter of 2012 was $102,000,000 and actual spending was approximately $74,000,000. He indicated that actual revenues are slightly ahead of planned revenues for 2012. Mr. Araujo mentioned that PURA issued a final decision allowing an $18,000,000 carryover from 2011, and the 2012 budget has been revised based on that decision. He mentioned that DEEP has asked that funds in the amount of $5,500,000 be utilized for self-funding of residential loans. Mr. Araujo provided a comparison and update on the status of the residential programs. He also provided an update on the residential/commercial, large retrofit and other programs.

Mr. McDonnell summarized the third quarter report for United Illuminating. He indicated that revenues are better than projected. Mr. McDonnell mentioned that RGGI proceeds are greater than anticipated. He summarized that the residential programs have been stronger than the retail products. Mr. McDonnell spoke about the partnership with DEEP and CEFIA to encourage more participation by UI towns in the Clean Energy Communities Program. There was consensus that the quarterly updates are very helpful for the Joint Advisory Committee to review on a quarterly basis.

Mr. Garcia and Mr. Hunter provided an update on CEFIA's residential financing programs, including 1) the solar PV and Solar Hot Water Systems Lease and PPA; 2) the Solar Loan Pilot; 3) the Competitive Solar PV Loan Pilot—Capital Competition; 4) the Cozy Loans—Low-Income Energy Loan Fund Pilot; and 5) the Equipment Replacement and Clean Energy Loan Pilot. In response to a question about the

equipment conversion, a suggestion was made to increase incentives or lower the interest rate for higher efficiency equipment. It was noted that not all conversions will require complete boiler or furnace replacement. Mr. Garcia stated that CEFIA will ensure that the program developed meets the requirements of the statute (i.e. Section 116 of Public Act 11-80) in the very least and the policy of CEEF in practice. After a discussion on whether CEFIA's program will offer financing for the conversion of oil heating to gas heating equipment, CEFIA staff indicated that CEFIA would like to provide a suite of options to enable fuel switching and choices for consumers to make upgrades and will work with DEEP to determine what is appropriate.

An update was provided on C-PACE. Mr. Hunter mentioned that six towns have signed agreements and CEFIA is working with a number of other towns. A Request for Qualifications for capital providers resulted in the approval of eight financiers. A Request for Proposals process was completed for a third-party administrator for project management, technical assistance, financial oversight and coordination with CEFIA. The program guidelines have been completed, and the program will be formally launched in January by Governor Malloy.

5. Marketing Program Update:

Mr. Schlegel provided an update on EnergizeCT, a joint marketing effort between CEFIA, CEEF and DEEP. Content uploading and compilation of information is near completion for the Website. Final editing will be completed by the end of December, and the Website will be launched on or about January 2, 2013. Various links will be identified on the Website, and the EnergizeCT brand will be incorporated. Mr. Schlegel mentioned that it is anticipated that Governor Malloy and/or Commissioner Esty will make several appearances in early January to recognize the EnergizeCT brand.

A discussion ensued on reimbursement to CL&P for marketing costs. A Personal Service Agreement between CL&P and CEFIA may be necessary to expedite the reimbursement process.

Mr. Wall reported on CEFIA's Solarize Program. He noted that the first phase was due to end December 14. However, because of the impacts on many of the towns from storm Sandy, an extension will be granted until January 14, 2013. Mr. Wall indicated that in response to an issue that has arisen regarding Home Energy Solution vendors, CEFIA is working on an amendment to the process. Mr. Garcia reported that installed costs are coming down because of the competition, and CEFIA is learning a lot from the marketing program that may be applicable to energy efficiency.

6. Next Steps:

Ms. Glover reiterated the need to work as closely as possible with the various agencies to avoid duplication of efforts and funding. From the Energy Efficiency Board's view, Mr. Howland stated that the respective staffs and consultants should be involved in processes and before decisions are made.

There was general consensus that rather than having updates at the quarterly meetings, the meetings should be more action related.

7**.** **Adjournment**: The meeting was adjourned at 2:34 p.m.

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To: Bryan Garcia, President, Clean Energy Finance and Investment Authority

From: Commissioner Dan Esty, Department of Energy and Environmental Protection

Cc: Jessie Stratton, Tracy Babbidge, and Alex Kragie

Date: November 21, 2012

Re: Pilot Programs to Finance Energy Upgrades

Section 116 of Public Act 11-80, *An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut's Energy Future*, (P.A. 11-80) requires the Department of Energy and Environmental Protection (DEEP) to establish a residential heating equipment financing program. This program will allow residential customers to finance, *through on-bill financing or other mechanism*, the installation of energy efficient natural gas or heating oil burners, boilers and furnaces to replace (1) burners, boilers and furnaces that are not less than seven years old with an efficiency rating of not more than seventy-five per cent, or (2) electric heating systems. I want to ensure that the most efficient equipment is being financed through this program.

Consistent with the Draft 2012 Connecticut Comprehensive Energy Strategy (Draft Strategy) and P.A. 11-80, DEEP requests that the Clean Energy Finance and Investment Authority (CEFIA) coordinate with DEEP to develop pilot programs(s) to finance equipment energy efficiency upgrades for the residential sector. These pilots should determine the most effective programs to attract sufficient private capital at low interest rates, to make residential clean energy investments—including investments to upgrade or replace inefficient furnaces and boilers—affordable on the scale needed to achieve Connecticut's overall energy goals. I request that you coordinate with United Illuminating, Connecticut Light & Power, and members of the Energy Efficiency Board to incorporate appropriate incentives and to prevent customer confusion with the Connecticut Housing and Investment Fund program – because all clean energy financing programs will be co-branded underneath the EnergizeCT marketing program.

One of the pilot programs for financing residential energy efficiency measures CEFIA should develop and implement is a "low or no" interest rate loan program modeled on the zero interest HEAT loan offered by Mass Saves (Massachusetts' utility-administered efficiency program). The HEAT loan program is administered directly by community banks and credit unions, with Mass Saves' subsidy in the form of an upfront buy-down of the interest rate to 0%. The Draft Strategy proposes that CEFIA pilot a similar program with Connecticut banks and establish a loan loss reserve, interest rate buy down, or other credit enhancement mechanisms to support affordable interest rates and enable a payback period for the homeowner of up to twelve years. In the design of your financing program, I want to stress that your focus should be to attract and deploy private capital so as to reduce our reliance on ratepayer resources.

The second pilot program for financing residential energy efficiency measures CEFIA should develop and implement is "on-bill" financing. Through on-bill financing, homeowners can finance energy efficiency, heating equipment upgrades or conversions, and renewable energy improvements with little or no upfront costs by paying for those measures over an extended time on their monthly utility bills. Typically, the loan terms on these clean energy investments are structured so that savings from the efficiency or renewable energy improvements are greater than the loan repayment cost. As a result, the homeowner will have no increase in their monthly utility bill-- and ideally gets some gets some portion of the savings from day one. I ask that you begin to explore the merits of on-bill financing to determine whether or not it is a vehicle to attract low-cost private capital investment in Connecticut.

Lastly, I note that on April 4, 2012, DEEP and CEFIA engaged in a Memorandum of Agreement for the purpose of undertaking projects of mutual interest, which were specific to the use of federal funds for a "Clean Energy Financing Program" through the American Recovery and Reinvestment Act State Energy Program (ARRA-SEP). Those funds are to be used for credit enhancements to leverage additional public and private sectors sources of capital in support of residential energy efficiency and renewable energy financing programs. I would request that you use these federal resources to attract private capital from credit unions, community banks, or other sources to invest in the residential financing programs.

Please respond to Jessie Stratton, Director of Policy, at Jessie.stratton@ct.gov to confirm CEFIA's acceptance of this role. DEEP's goal is to complete programmatic design for both pilot programs this year, and also launch at least one of the pilot programs this year.

Sincerely,

Daniel C. Esty
Commissioner
Connecticut Department of Energy
and Environmental Protection

December 2, 2012

To: Bryan Garcia, President
Clean Energy Finance and Investment Authority (CEFIA)

From: Chris Kramer and Jeff Schlegel, EE Board Consultants

Re: Financing Objectives and Criteria, Follow up on Energy Efficiency Board (EEB) Letter

This memo follows up on Energy Efficiency Board Vice Chairman Jamie Howland's earlier letter regarding the EEB's desire to work with CEFIA in securing and developing attractive and effective financing to support energy improvement projects. In particular, this memo provides further details regarding the EEB consultants' reactions to the "Equipment Replacement and Clean Energy Loan Pilot" ("CEFIA Pilot") that CEFIA is currently exploring with credit unions in the United Illuminating territory. The discussion below focuses specifically on how the product measures up to the key EE program objectives and financing criteria laid out in the November 29th letter, with an emphasis on residential financing.

As noted in the earlier letter, any energy efficiency financing products offered under the Energize CT umbrella must be consistent with and explicitly supportive of the State of Connecticut's and the EEB's strategic *program objectives* for achieving deeper and more sustainable energy efficiency improvements. In addition, effective financing programs must at a minimum meet the following four *financing criteria*:

1. The financing process must be convenient from a customer perspective and streamlined from a programmatic perspective. Loan approvals must be quick and simple for customers. Back-end processes must not be too costly or complex. Delivery and promotion should be fully integrated with existing energy efficiency programs.

2. The product must be attractive and economical from a customer perspective. The all-in costs to customers, when considering interest rates, terms, and fees must be lower than or at least competitive with available alternatives.

3. The product should be economical from a program perspective. Costs to ratepayers and energy efficiency programs should be kept low by attracting low-cost capital, reducing perceived risks to repayment of capital through loan loss reserves or other mechanisms, optimizing credit enhancements, and reducing or eliminating any unnecessary fees to the program.

4. The product (or mix of products) must meet the needs of targeted market segments. These include those segments in which financing is most likely to work, meaning that financing can be implemented and rebates and other incentives can be reduced commensurately while still achieving the energy savings goals. These may include higher income homeowners, small businesses, and some segments of the large commercial and industrial sector. Financing must also be available to those customer segments that could not otherwise afford energy efficiency investments or could not afford to go as deep as they otherwise might. This includes rental markets and customers with moderate credit scores. Financing products should not be limited to higher-income customers.

The above are the same criteria for financing products that the EEB has emphasized in its work on financing products for both existing and future energy efficiency programs.

The EEB acknowledges that it may take more than one financing product to serve all residential market segments. However, the financing products should be marketed as one overarching residential financing offering under the Energize CT umbrella, and the specific variations in the products should mostly be addressed and managed by CEFIA and the EE program administrators "behind the curtain." As such, it is critical that the EEB and CEFIA coordinate in the development of any products being offered under Energize CT.

The EEB emphasizes that acquiring private capital is not by itself a measure of success. In order to be successful and effective, any new financing products must meet the program objectives and financing criteria above. In the residential sector, the EEB appreciates that CEFIA has moved in the direction of exploring a loan product for Connecticut residents that brings in credit unions as flexible and convenient capital providers and that it has moved away from pursuing a an on-bill product with utility shut-offs. Still, it is important that the CEFIA Pilot product meet the criteria outlined above. The EEB believes that the CEFIA product meets some of these criteria but could be further improved to better achieve these objectives. The following discussion outlines some of the EEB's questions and concerns.

Comparison to Existing Product and MA HEAT Loan:

Comparing the CEFIA Pilot product to the existing CHIF loans and to the Massachusetts HEAT Loan may help to clarify how the CEFIA Pilot product measures up to the criteria outlined above. The table below provides a summary comparison of these different products.

	Existing CHIF Loan	CEFIA Pilot	MA HEAT Loan
Process convenient for customers, streamlined from program perspective	Loan approvals may be drawn out, although they are simplified for the insulation loan. EEB consultants will follow up with CHIF to determine reasons for length of time of loan approvals and whether any improvements can be made.	15-step process modeled after HEAT Loan but may be somewhat complex. Unclear how timing of loan approvals compares to CHIF. EEB consultants will follow up. CEFIA role should be clarified. Loan should be packaged as part of EE programs.	EEB consultants have been told that process may be more simplified, but details unclear. Consultants will follow up. Loans are packaged as integral part of Mass Save. Emphasis is on selling energy efficiency investments, not loans. Loans are one tool to help customers make these investments.
Economical from a customer perspective	2.99% for some measures, 4.99% for others, with max term of 10 years. 2.99% available for entire package if measures eligible for reduced rate included.	Schedule of rates, not to exceed: 4.49% for 5 years 4.99% for 7 years 5.99 for 10 years 6.99 for 12 years Rates higher than typical home equity loans.	0% loan
Economical from a program perspective	Relies on ratepayer capital, so high opportunity cost. Savings per dollar optimized by setting lower rates for measures that are more cost-effective. This modification was made to fix problem during pilot phase of investments in less cost-effective technologies.	Low ratio of pubic to private capital, but unclear whether low cost per unit of net savings achieved. Potentially low uptake may also require achievement of savings goals with higher-cost alternatives. EE measure eligibility unclear, and 25% may be used for non-EE investments. May encourage investments with a lower ratio of net savings/dollar while producing fewer savings for customers.	Higher cost of public capital per dollar invested, but also high uptake ($30MM in 2011 and $50MM in 2012), which may reduce need to achieve savings goals with higher-cost alternatives.
Meets the needs of targeted market segments	640 minimum FICO score for all loans, 50% debt-to-income ratio. Homeowners only.	80% of capital restricted to customers with FICO scores of 680 or above. 20% of capital available to customers with minimum 640 credit score between 640 and 679. 45% debt-to-income ratio. Unclear whether product is available renters.	Minimum 650 credit score for all loans, 50% debt-to-income ratio Available to renters.

The discussion below provides further details regarding the EEB's questions and concerns about the CEFIA Pilot product.

Financing Process Convenient and Streamlined:

The EEB has no specific objections to the process laid out for the CEFIA pilot. However, the EEB believes that CEFIA should examine whether the 15-step process outlined in CEFIA's presentation of the product[1] is as convenient and streamlined as possible. Although it appears the process flow is intended to be modeled after that Massachusetts HEAT Loan, EEB consultants have been told that the HEAT Loan model may be more streamlined, though the details are unclear at this point. The consultants will follow up with HEAT Loan representatives and provide CEFIA with any relevant recommendations.

In addition, the EEB would like to further understand how the timing of the CEFIA Pilot product would compare to that of the existing CHIF loan products, particularly with regard to verification of measure eligibility. CEFIA has stated that loan approvals would be quicker than approvals for the CHIF product. However, in discussions with the EEB consultants, CHIF has indicated that any delays in loan approvals are generally related to measure eligibility verification, which involves gathering information required by the energy efficiency program from contractors and customers. Information from CHIF also indicates that the financial side of the loan approval process is expedient. It is unclear what processes CEFIA intends to use for measure eligibility verification, as required by the energy efficiency programs, and how long these processes would likely take. Verifying measure eligibility is an important part of the energy efficiency programs, as it ensures that the measures installed are cost-effective and will contribute to savings goals as intended. Assuming that the CEFIA Pilot product relies on measure verification processes similar to those of the existing CHIF product, it is unclear whether the CEFIA Pilot product will have a competitive advantage over the current product in terms of the timing of loan approvals.

The process flow diagram and previous CEFIA statements also suggest that CEFIA's role in the program will be limited to reviewing summary data on a monthly basis. The EEB would like to understand the details of CEFIA's role more fully, including measure eligibility verification, general oversight and management, quality control, data collection and reporting, administration of the program and loss reserve fund, marketing, and any other activities and associated costs. A full accounting of CEFIA's role and costs may also impact whether the program is economical from a program perspective.

Finally, the EEB would also like to emphasize that any loan product for energy efficiency should be packaged and fully integrated into existing energy efficiency programs. Streamlined marketing and delivery should take place primarily through these programs. The emphasis of these programs should be on selling energy efficiency investments, not on selling loans. The loan product should be offered as

[1] "Residential Clean Energy Financing: An Energize CT Financing Partnership with Credit Unions, Community Banks, and Contractors," CEFIA, November 8, 2012.

one tool to encourage more people to take on energy efficiency investments or to go deeper with such investments.

Attractive and Economical from a Customer Perspective:

The EEB believes that the CEFIA Pilot product may not be economical as currently structured from a customer perspective for a large portion of the target market. CEFIA has acknowledged that customers who are eligible for a home equity loan "may or may not be candidates" for the product. For customers who currently have a home equity line of credit, CEFIA has stated, "To the extent they have adequate capacity and no other anticipated uses for the HE-LOC, the consumer should in most cases be able to borrow at lower rates for longer terms with the HE-LOC."[2]

As of the second quarter of 2012, approximately 2/3 of Connecticut mortgage borrowers had more than 20% equity in their homes[3] and could presumably obtain a home equity loan or line of credit, as could many of the 30% of Connecticut homeowners without a mortgage.[4] In other words, roughly 75% of Connecticut homes may be eligible for a home equity loan or line of credit, yet only about 15% of Connecticut homeowners currently have home equity loans.[5] It is likely that some fraction of the outstanding home equity loans and lines of credit are held by residents other than those who would currently be eligible for such financing. In addition, even among those residents who currently have a home equity line of credit, some may have additional capacity to take on energy efficiency investments.

Given the large percentage of Connecticut residents who may already be able to obtain more competitive financing, the EEB believes that CEFIA should further explore whether the rates and terms associated with the pilot product are sufficiently competitive. An alternative option may be to explore the possibility of marketing home equity loans as solutions for energy efficiency improvements.

The EEB acknowledges that some residents may be unable to obtain a home equity loan, yet they may still need financing support for home energy upgrades. However, many of these residents may also be in a position in which taking on additional debt is not advisable. As a result, the pilot product as currently structured may be suitable for only a relatively small sub-segment of the residential population.

The EEB is also open to discussing the possibility of using resources from the Connecticut Energy Efficiency Fund (CEEF) to support interest-rate buy-downs for the product and make it more competitive from a customer perspective. However, if this approach is taken, the product must also remain economical from a program perspective. For illustrative purposes, the following table estimates the costs of interest-rate buy-downs on a $10,000 loan to 2.99% and 0%, given the rate-and-term schedule of the CEFIA Pilot product.

[2] Email from Bert Hunter to Tilak Subrahmanian, November 13, 2012.
[3] "CoreLogic® Reports Number of Residential Properties in Negative Equity Decreases Again in Second Quarter of 2012," September 12, 2012, http://www.corelogic.com/about-us/news/asset_upload_file516_16435.pdf
[4] 2011 American Community Survey 1-Year Estimates.
[5] 2011 American Community Survey 1-Year Estimates.

Cost of Buy-Downs on CEFIA Pilot Product

	5 Years	7 Years	10 Years	12 Years
Credit Union Rate	4.49%	4.99%	5.99%	6.99%
Cost of Buy-Down to 2.99%	$362	$651	$1,303	$1,951
Cost of Buy-Down to 0%	$1,058	$1,574	$2,490	$3,244

As this chart demonstrates, the cost of buy-downs can be significant, particularly to buy down to lower rates for customers and for longer terms. In order for the buy-downs to make sense , they must make the loan more attractive to customers, but also allow savings goals to be met at a lower cost to ratepayers, as discussed further in the next section.

Economical from a Program Perspective:

CEFIA has stated that it chose to use a loan loss reserve structure for the pilot product instead of interest rate buy-downs, as used in the Massachusetts HEAT Loan model, because a loan loss reserve is "less expensive." This raises the question of how the term "expensive" is defined. It appears that the CEFIA pilot product is likely to have a low ratio of public capital to private capital invested, but it is unclear whether the product is likely to have a low ratio of public capital invested per unit of net savings achieved. This latter test is more appropriate in judging whether a program is economical from a program perspective, since the goal of energy efficiency programs should be to achieve savings, not simply to make leveraged investments.

Net savings are those savings generated from the additional energy efficiency investments that would not have been achieved if a program did not exist. Generally these additional investments are incentivized by reduced prices or rates that put the investments within reach of some additional customers, while other participants who would have made the investment even in the absence of the program are considered free riders.

For anyone who can obtain a lower-rate home equity loan, the CEFIA Pilot product does not actually reduce rates below available market rates, meaning it is not putting energy efficiency investments within economic reach of any new additional customers within this segment. If such customers end up participating in the program, it is questionable whether the savings generated from their participation should be counted as net savings. This would be somewhat analogous to counting net savings from offering more expensive CFL bulbs through an energy efficiency program than those that a customer could simply buy at market rate in a store. Even if some customers participate because the program provides them access to information about financing that they might not otherwise have, it would likely be more economical simply to provide them with better information about cheaper private-market alternatives.

A separate but related issue in examining whether a program is economical from a program perspective is projected uptake. In some cases, a loan may be less economical for a program overall if it leads to lower uptake, even if the amount of public capital invested per loan or unit of net savings is lower. This

is because energy efficiency programs have defined goals that they are required to meet and may make up for any savings not achieved by the loan product using a more expensive "next best alternative."

The following simplified example of a program with a 100,000 MMBtu savings goal illustrates this point. (The numbers used are intended to be illustrative only.) Note that Loan A has a lower cost of public capital invested per MMBtu of savings, but the total cost to the program of achieving the savings goal is higher because the uptake on this loan is lower. As this example shows, even with a product that achieves a lower ratio of public to private capital and a low cost per unit of net savings, the product may leave the program economically worse off if its uptake is lower than that of a loan product with higher ratios.

Savings Goal (MMBtu)	100,000	100,000
	Loan A	Loan B
Typical Loan Size	$10,000	$10,000
Public Capital Invested per Loan	$500	$1,000
Average Savings per Loan (MMBtu)	10	10
Public Cost/MMBtu	$50	$100
Uptake (homes)	1,000	3,000
Total Public Cost of Loan Program	$500,000	$3,000,000
Total Savings (MMBtu)	10,000	30,000
Savings Goal Remaining (MMBtu)	90,000	70,000
Cost per Additional MMBtu (Next Best Alternative)	$150	$150
Total Cost of Additional MMBtus	$13,500,000	$10,500,000
Total Bottom-Line Cost to Achieve Savings Goal	$14,000,000	$13,500,000

Many programs are of course budget constrained, meaning that it may not be possible to spend the additional funds necessary to reach savings targets. In such cases, savings goals may simply not be achieved.

While this example is intended to be illustrative only, there are reasons to consider whether such a scenario may play out with the CEFIA Pilot product. As discussed above, given the wide availability of cheaper home equity loans, it is unclear what the uptake of the CEFIA loan product is likely to be and how much of that uptake should be considered net savings. By contrast, the Massachusetts HEAT Loan product, which buys down the customer interest rate to 0%, may be more expensive in terms of public capital invested per loan, but the product has also achieved significant uptake. Total volume for the HEAT Loan product was $30,000,000 in 2011 and is on track to reach $50,000,000 in 2012.

The EEB believes that CEFIA should examine whether investing some additional amount of public capital per loan to make the product more competitive would likely drive sufficient additional uptake to reduce the bottom-line costs of achieving overall energy savings goals. As noted above, the EEB is open to the possibility of using CEEF funds for this purpose. However, such buy-downs should only be used if they ultimately allow savings goals to be achieved at a lower cost.

Finally, the EEB believes that CEFIA should provide further clarification regarding measure eligibility. Under the current CHIF loan program, measures that are provide greater savings are incentivized at lower rates, which is intended to generate a higher level of savings per dollar invested. The measure eligibility requirements for the CEFIA Pilot product are less clear,[6] and the EEB notes that 25% of capital may also be used for non-energy investments.[7] If public dollars in the form of loan loss reserves used to incentivize investment in technologies that are not sufficiently cost-effective, then the program will be less economical than it could otherwise be while potentially encouraging customers to take on investments that will produce lower savings for them. It should be noted that the existing CHIF loan product was specifically modified from its pilot phase to address ensure that public capital was not devoted to encouraging investments in expensive technologies that did not produce sufficient savings relative to investment costs. Even if public investment costs are lower with a loan loss reserve structure, as noted above, the appreciable net savings generated given other available financing may be lower, as well. CEFIA should work with EEB consultants to clarify what measures will be eligible under the pilot program.

Meets the Needs of Targeted Market Segments:

Financing products should be available to those customers who most need them in order to take on or go deeper with energy efficiency investments. These include rental customers, as well as customers with moderate credit scores.

The EEB would appreciate clarification as to whether the CEFIA Pilot product would be open to any renters. As noted in the comparison chart above, the Massachusetts HEAT Loan product is available to renters. With regard to the CEFIA Pilot product, Exhibit A of the "Financing Program Services Agreement" states that only single-family, 1-4 unit homes used as a primary residence (or not used as

[6] The CEFIA PowerPoint presentation refers to a SIR > 1 requirement, but this requirement does not seem to appear in the financial services agreement with the credit unions. In any case, while the SIR test ensures cash flow neutrality over the loan term from a customer perspective, it does not ensure that investments are economical from a program perspective. Further, the three measure eligibility requirements that do show up in the Financial Services Agreement are not entirely clear. For example, it is unclear whether all requirements must be met or only one (the language uses the word "and," but meeting all requirements simultaneously appears to be mutually exclusive in some cases, such as improvements that meet requirement #1 or #3, but not both). If meeting only one requirement is required, then the EEB requirement #2, which would appear to allow a wide range of investments as permitted under the ARRA SEP program, some of which may not produce a high level of net savings per dollar invested. In addition, requirement #3, which states that measures must be "Recommended by a Program Contractor," should further clarify "*as an eligible improvement under HES, HPwES, or other utility programs.*" The EEB would also appreciate further clarification regarding the term "Program Contractor," particularly with regard to the origin and purpose of definition #3, "Building Performance Institute contractors that are registered home improvement contractors with the Connecticut Department of Consumer Protection."

[7] Typical energy efficiency portfolio budgets would not permit 25% to be devoted to non-energy investments. The EEB understands that loans may be unique in that customers may wish to finance a package of improvements that include some energy and non-energy investments. It would not be desirable to force an inconvenience on a customer, such as requiring them to fill out two different loan applications for the different aspects of the project, particularly given that a home equity line of credit could support the entire project, However, the EEB believes that CEFIA should explore the possibility of using the loan loss reserve itself to cover only those investments that qualify as eligible.

income property) would be eligible. This language does not explicitly exclude renters of such properties, but other CEFIA presentations of the product do refer to homeowners. In addition, in discussions with CHIF, EEB consultants have been told that a significant number of Connecticut residents live in six-unit homes that may be in need of energy efficiency upgrades. The EEB believes that CEFIA should explore whether it may be appropriate to make this product available to this segment of residents. The EEB understands that CEFIA is working on a separate multifamily energy loan product and a low-income product for landlords and would appreciate further clarification regarding how renters will be covered by the combination of these products.

The EEB also believes that CEFIA should examine the limitation currently built into the product that restricts 80% of the available capital to residents with credit scores of 680 or higher. The current CHIF model sets the minimum credit score at 640 for all loans, while the HEAT Loan model sets the minimum at 650 for all loans. The EEB understands that credit unions have a need to protect their own portfolios and also that extending credit may not always be advisable to customers who are not in a good position to take on additional debt. Nonetheless, the EEB is concerned that the practical effect of restricting 80% of the funds to borrowers with credit scores of 680 or higher may be to make the vast majority of the product capital available only to those who could likely find other alternatives. This may be particularly true given the previous discussion regarding the number of Connecticut residents who could likely obtain a more competitive home equity loan. The EEB would like to see the pilot loan product extended to a larger share of residents for whom access to capital is truly a barrier to investing in energy-saving upgrades.

The EEB recognizes that CEFIA is working on two pilot products for the low-income residential sector that will extend capital to some residents who might otherwise have difficulty accessing it. However, given that credit scores are not calculated using income as a factor, the EEB is still concerned that the credit union product may leave a capital availability gap for some residents.

Conclusion:

The EEB consultants, on behalf of the EEB, reiterate that the EEB would like to continue working with CEFIA to secure attractive and effective financing for residential customers. The EEB appreciates that CEFIA has moved in the direction of exploring a residential energy efficiency financing product that brings in credit unions as capital providers, drawing on some of the best practices from the successful Massachusetts HEAT Loan product. However, the EEB continues to have some questions and concerns regarding the structure of the CEFIA Pilot product being explored in UI territory, particularly with regard to how the product meets the four key criteria laid out at the beginning of this memo. The EEB looks forward to CEFIA's clarifications regarding these issues and expects to continue coordinating with CEFIA to structure a product that can work effectively for residents throughout the state.

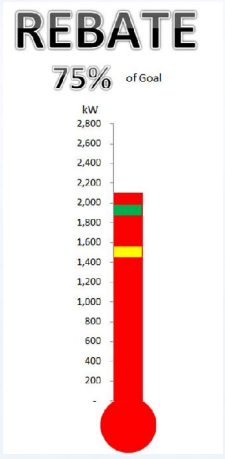
CLEAN ENERGY
FINANCE AND INVESTMENT AUTHORITY

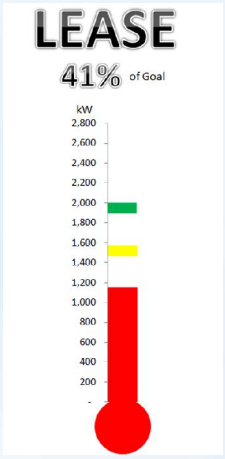
Market Watch Report

Residential Solar Investment Program

Program Data as of November 16, 2012

Race to the Rooftop





The YELLOW BAR at 1,600 kW represents a point in time when CEFIA staff will make a recommendation on the Step 3 funding and incentive level to the Deployment Committee for consideration. The GREEN BAR at 2,000 kW represents a point in time when the Deployment Committee and CEFIA staff will propose Step 3 funding and incentive level to the Board of Directors for consideration and approval.

Executive Summary

- Environmental Benefits – installations under the RSIP have led to a reduction of nearly 100 million lbs of CO2 emissions over the lifetime of those systems.
- Installation Pace Accelerating / Costs Decreasing – with only twice the dedicated resources, Step 2 installations are on pace to more than triple the number of installations approved under Step 1.
- Investment Increasing – more than $14 million in private capital has been expended on residential solar PV under the RSIP thus far.

Step 2 - Effective 5/18/2012	Rebate	PBI	Total	Average
Applications Received	264	152	416	
Applications Approved	258	152	410	
Applications In Progress	91	54	145	
Applications Completed	68	17	85	
Total Cost	$8,550,309	$5,407,020	$13,957,330	
Total kW STC	1,751.2	1,107.6	2,858.8	
Average System Size kW STC	6.8	7.3		7.0
Cost / kW STC	$4,883	$4,882		$4,882
Average Total Cost	$33,141	$35,573		$34,042
Total Incentive Amount	$2,769,723	$2,028,807	$4,798,530	
Incentive / kW STC	$1,582	$1,832		$1,679
ZREC Equivalent Incentive Price	$0.104	$0.112		
Rooftop Solar Capacity Remaining	1,048.8 kW	1,692.4 kW	2,741.2 kW	

Applications Received – the total number of applications submitted by installers and received by CEFIA through PowerClerk.

Applications Approved – the total number of applications received and approved by CEFIA staff for project incentives.

Applications In Progress – the total number of projects that have received 60% in upfront incentives for delivery of materials to the site.

Applications Completed – the total number of projects that have received 100% in incentives after inspection and completion of the project.

ZREC Equivalent Incentive Price - Given the total system cost, total incentive and total capacity (stc) of all Approved applications, the ZREC Equivalent Price is determined by calculating the net present ZREC Equivalent Price from a 15 years stream of payments that equals net present value of CEFIA's incentive.

Note: Solarize kWs are included in 'The Race to the Rooftop' but excluded from pricing data until the program closes.

About the Clean Energy Finance and Investment Authority

CEFIA was established by Connecticut's General Assembly on July 1, 2011 as a part of Public Act 11-80. This new quasi-public agency supersedes the former Connecticut Clean Energy Fund. CEFIA's mission is to help ensure Connecticut's energy security and community prosperity by realizing its environmental and economic opportunities through clean energy finance and investments. As the nation's first full-scale clean energy finance authority, CEFIA will leverage public and private funds to drive investment and scale-up clean energy deployment in Connecticut.

Historical Program Data (Previous Steps)

Step 1 - Fully Subscribed	Rebate	PBI	Total	Average
Applications Received	151	16	167	
Applications Approved	151	16	167	
Applications In Progress	62	7	69	
Applications Completed	85	7	92	
Total Cost	$5,350,694	$594,599	$5,945,293	
Total kW STC	991.3	125.5	1,116.9	
Average System Size kW STC	6.6	7.8		6.7
Cost / kW STC	$5,398	$4,737		$5,323
Average Total Cost	$35,435	$37,162		$35,601
Total Incentive Amount	$1,753,340	$229,999	$1,983,339	
Incentive / kW STC	$1,769	$1,832		$1,776
ZREC Equivalent Incentive Price	$0.115	$0.112		

Based on estimated lifetime system production under Step 1, current residential deployment represents an average levelized cost of solar energy within the range of $0.223 - $0.240 / kWh. Of that total, CEFIA's support accounts for $0.074 - $0.085 / kWh.

Estimated Environmental Benefits based upon all Approved Applications

Lifetime $C0_2$ Reduction	Lifetime NO_X Reduction	Lifetime SO_2 Reduction	Annual Cars off the Road	Equivalent Acres of Trees Planted
97,962,455 lbs.	44,400 lbs.	40,621 lbs.	326	653

Estimated Economic Development and Jobs Benefits based upon all Approved Applications[1]

Direct Jobs Created	Indirect and Induced Jobs	Total Jobs Created
117	189	307

1
- Direct jobs are jobs created in CT that are directly related to manufacturing and system assembly in CT, as well as installation of the PV systems.
- Indirect jobs are jobs created at CT suppliers in order to meet demand resulting from the new systems coming on line. An example would be increased employment associated with metal bending or wiring supplied to integrate and install the units.
- Induced jobs are jobs generated by spending from households that benefit from the additional wages and business income they earn through all of the direct and indirect activity. An example would be increased employment at a local restaurant, because installers are working overtime, have extra income and don't have time to eat at home.

CLEAN ENERGY
FINANCE AND INVESTMENT AUTHORITY

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The Connecticut Light & Power Company

Conservation & Load Management
Program Year 2012
3rd Quarter Report

November 15, 2012

energize CONNECTICUT

Connecticut Light & Power
A Northeast Utilities Company

Highlights

Actual spending of $73.9 million ($28.4 under Budget of $102.3 million).

Revenue of $86.2 million ($16.1 under Plan of $102.3 million).

Received ISO-NE's Forward Capacity Market Revenues from Other Demand Resources (ODRs) from energy efficiency resources in the amount of $7.5 million dollars.

PURA issued the Final Decision on the Revised Base Budget with 2011 Carry Over of $18.1M on August 8th, 2012.

Department of Energy and Environmental Protection(DEEP) Final Determination recommends a Conservation Adjustment Mechanism(CAM) be implemented by Public Utilities Regulatory Authority(PURA) and Multi-Year Planning.

Provided $5.5 million for Self-Funding of Residential Loans to the Connecticut Energy Efficiency Finance Company (CEEFCO).

Participated in or Hosted a Total of 33 Seminars and Events during the 3rd Quarter.

Program Comparison – "Completed" 3rd Qtr 2012 vs. 3rd Qtr 2011

	3rd Qtr 2012		3rd Qtr 2011		3rd Qtr 2012 vs 2011		3rd Qtr 2012 vs 2011	
	# of Projects/ # of Products	$'s Expended ($000's)	# of Projects/ # of Products	$'s Expended ($000's)	# of Projects/ # of Products Over/(Under)	$'s Expended Over/(Under) ($000's)	% Chg in # of Projects or Products Over/(Under)	% Chg in Expenditures Over/(Under)
Residential Retail Products	1,594,195	$4,583	2,539,031	$5,495	(944,836)	($912)	(37%)	(17%)
HES - In-Home Services	13,433	$9,983	13,037	$10,119	396	($136)	3%	(1%)
HES - HVAC Rebate	2,264	$762	3,263	$1,603	(999)	($841)	(31%)	(52%)
Residential New Construction	610	$1,198	443	$997	167	$201	38%	20%
HES - Income Eligible	5,248	$10,425	8,883	$9,226	(3,635)	$1,199	(41%)	13%
Total Residential	**1,615,750**	**$26,950**	**2,564,657**	**$27,440**	**(948,907)**	**($489)**	**(37%)**	**(2%)**
Energy Conscious Blueprint	223	$7,621	247	$6,815	(24)	$806	(10%)	12%
Energy Opportunities	416	$14,901	549	$19,850	(133)	($4,949)	(24%)	(25%)
Operations & Maintenance	7	$1,333	9	$1,234	(2)	$99	(22%)	8%
PRIME	72	$375	46	$386	26	($12)	57%	(3%)
Small Business Energy Advantage	866	$6,990	1,056	$9,272	(190)	($2,282)	(18%)	(25%)
Total Commercial & Industrial	**1,584**	**$31,220**	**1,907**	**$37,558**	**(323)**	**($6,338)**	**(17%)**	**(17%)**
Total of Programs	**1,617,334**	**$58,170**	**2,566,564**	**$64,997**	**(949,230)**	**($6,827)**	**(37%)**	**(11%)**

3rd Quarter 2012

Fund Revenues ($000's)

	Actual	Goal/Budget	% Goal Achieved
Collections (Mil Rate)	**$50,023**	**$67,359**	**74%**
Interest Expense (Carrying Charges)	**$1,517**	**$800**	**190%**
ISO-NE ODRs	**$7,492**	**$6,500**	**115%**
Class III RECs	**$940**	**$3,600**	**26%**
Stimulus Package	**$65**	**$0**	**0%**
RGGI Revenues	**$4,679**	**$2,433**	**192%**
ISO-NE FCM Demand Response	**$3,448**	**$3,500**	**99%**
Sub-total Revenues	**$68,164**	**$84,191**	**81%**
Carry Over from 2011	**$18,082**	**$18,115**	**0%**
Total	**$86,246**	**$102,306**	**84%**

- CL&P Budget is the Base Budget with 2011 Carry Over of $18.1M (PURA Final Decision on August 8, 2012)

Energy Savings & Expenditures

	Actual	Goal/Budget	% Goal Achieved
Budget ($000's)	**$ 73,959**	**$ 102,307**	**72%**
Lifetime Usage Savings (kWh)	**1,153,706,484**	**1,969,552,301**	**59%**
Demand Savings (kW)	**100,596**	**126,644**	**79%**

$73.9 M in spending
- $31.2 M on C&I
- $26.9 M on Residential
- $15.8 M on Other (Educ., Plan/Eval, Admin., IT, etc.)

100.6 MW in peak demand savings
- 8.8 MW in C&I
- 6.8 MW in Residential
- 85.0 MW in Other (Load Response)

Residential Retail Products

Budget ($000's)		Demand Savings (kW)		Lifetime Usage Savings (kWh)	
Annual Goal	**$ 7,350**	Annual Goal	**4,573**	Annual Goal	**294,002,839**
YTD Actual	**$ 4,583**	YTD Actual	**4,357**	YTD Actual	**247,478,750**
% Expended	**62%**	% Goal Achieved	**95%**	% Goal Achieved	**84%**

1,594,195 lighting products sold through the 3rd quarter.

365,176 specialty products sold through the 3rd quarter.

32 Negotiated Cooperative Promotions(NCPs) signed agreements and over 200 participating retail store fronts through the 3rd quarter.

Thirty-seven lighting fairs held through the 3rd quarter.

Rebate forms are now available on the Top Ten Website and in Stores.

Increasing demand for LED lighting. Cree Lighting Manufacturer has reduced $5 off per LED Bulb.

Home Energy Solutions

Budget ($000's)		Demand Savings (kW)		Lifetime Usage Savings (kWh)	
Annual Goal	**$ 12,857**	Annual Goal	**1,995**	Annual Goal	**118,841,580**
YTD Actual	**$ 10,745**	YTD Actual	**1,777**	YTD Actual	**99,304,697**
% Expended	**84%**	% Goal Achieved	**89%**	% Goal Achieved	**84%**

13,433 homes were served through the 3rd quarter.

2,264 HVAC rebates were paid through the 3rd quarter.

28 Multi-family projects with 2,816 units completed through the 3rd quarter.

Received approval to increase the light bulb limit to 40 light bulbs per home.

Implemented new variable pricing for air sealing measure to increase MMBtu savings per home.

Vendors provided goals of 15 MMBtu savings per home.

Twenty-Five contractors designated as HPwES contractors for CL&P's service area.

Request for Proposal issued for 2013 Home Energy Solutions program on September 18th.

Residential New Construction

Budget ($000's)		Demand Savings (kW)		Lifetime Usage Savings (kWh)	
Annual Goal	**$ 1,261**	Annual Goal	**356**	Annual Goal	**29,900,570**
YTD Actual	**$ 1,198**	YTD Actual	**300**	YTD Actual	**23,448,051**
% Expended	**95%**	% Goal Achieved	**84%**	% Goal Achieved	**78%**

610 units were completed through the end of the 3rd quarter.

ENERGY STAR Version 3.0 is in effect for all projected completed after June 30th, 2012.

Increase in trend for multi-family new construction projects throughout 2012.

Ground Breaking of The Heights at Darien on July 16th; Redevelopment of the 40-unit outdated affordable housing community into a revitalized ENERGY STAR certified affordable housing community.

Zero Energy Challenge print ad ran in CT Builder Magazine.

Footnote: Percent expended is higher than percent savings due to reserves included in spending.

Home Energy Solutions – Income Eligible

Budget ($000's)		Demand Savings (kW)		Lifetime Usage Savings (kWh)	
Annual Goal	**$ 12,400**	Annual Goal	**740**	Annual Goal	**132,720,861**
YTD Actual	**$ 10,425**	YTD Actual	**375**	YTD Actual	**91,410,661**
% Expended	**84%**	% Goal Achieved	**51%**	% Goal Achieved	**69%**

5,248 households served through the 3rd quarter.

20 Multi-Family sites Committed, along with four sites under development.

Continue to partner with UI on Connecticut Efficient Healthy Homes Grant Initiative.

Footnote: Percent expended is higher than percent savings due to reserves included in spending.

Energy Conscious Blueprint

Budget ($000's)		Demand Savings (kW)		Lifetime Usage Savings (kWh)	
Annual Goal	**$ 9,353**	Annual Goal	**4,860**	Annual Goal	**341,829,689**
YTD Actual	**$ 7,621**	YTD Actual	**2,352**	YTD Actual	**175,319,491**
% Expended	**81%**	% Goal Achieved	**48%**	% Goal Achieved	**51%**

223 customer projects have been completed through the 3rd quarter.

Fifty-three percent of projects classified as Whole Building Performance projects or achieved thirty percent better than code for lighting against goal of 30 percent.

Telephone outreach to 21 Business Associations to promote C&I Programs.

Heating & Cooling Distribution Equipment Seminar held on August 21st in Berlin and August 22nd in Shelton.

Continue to advertise in the American Institute of Architects (AIA) directory and attend AIA events.

Footnote: Percent expended is higher than percent savings due to reserves included in spending.

Energy Opportunities

Budget ($000's)		Demand Savings (kW)		Lifetime Usage Savings (kWh)	
Annual Goal	**$ 15,242**	Annual Goal	**5,871**	Annual Goal	**477,763,039**
YTD Actual	**$ 14,901**	YTD Actual	**4,442**	YTD Actual	**324,524,331**
% Expended	**98%**	% Goal Achieved	**76%**	% Goal Achieved	**68%**

416 customer projects were completed through the 3rd quarter.

29 percent of signed projects are Comprehensive.

Ten percent of signed projects incorporate performance contracting.

Telephone outreach to 21 Business Associations to promote C&I Programs.

Commercial and Industrial Articles published with twelve trade organizations reaching a circulation of 120,000 members.

Heating & Cooling Distribution Equipment Seminar held on August 21st in Berlin and August 22nd in Shelton.

Footnote: Percent expended is higher than percent savings due to reserves included in spending.

Operation & Maintenance (includes RetroCx)

Budget ($000's)		Demand Savings (kW)		Lifetime Usage Savings (kWh)	
Annual Goal	**$ 4,171**	Annual Goal	**2,349**	Annual Goal	**144,420,641**
YTD Actual	**$ 1,333**	YTD Actual	**51**	YTD Actual	**7,010,681**
% Expended	**32%**	% Goal Achieved	**2%**	% Goal Achieved	**5%**

Seven customer projects have been completed through the 3rd quarter.

Qualification training was provided on September 27th to twenty-eight commissioning providers to conduct RCx projects by Program Administrators.

Working to support states interest in performance contracting. Engineering Request for Proposal under review and pending release.

Energy Efficiency Fund Table staffed at the UTC Aerospace Sustainability Fair on September 14th.

Footnote: Percent expended is higher than percent savings due to reserves included in spending.

PRIME

Budget ($000's)			Demand Savings (kW)		Lifetime Usage Savings (kWh)	
Annual Goal	$	535	Annual Goal	-	Annual Goal	10,682,077
YTD Actual	$	375	YTD Actual	-	YTD Actual	8,660,749
% Expended		70%	% Goal Achieved	-	% Goal Achieved	81%

72 PRIME projects were completed through the 3rd quarter.

Small Business Energy Advantage

Budget ($000's)		Demand Savings (kW)		Lifetime Usage Savings (kWh)	
Annual Goal	**$ 14,640**	Annual Goal	**5,900**	Annual Goal	**419,391,005**
YTD Actual	**$ 6,990**	YTD Actual	**1,963**	YTD Actual	**176,549,073**
% Expended	**48%**	% Goal Achieved	**33%**	% Goal Achieved	**42%**

866 projects completed through the end of the 3rd quarter.

Currently fourteen percent of signed projects are comprehensive.

SBEA Direct Mail Campaign from July 16th to July 23rd to approximately 32,000 business customers.

Energy Efficiency Programs for Small Businesses held on September 25th, hosted by the Town of Stafford, Tolland County Chamber of Commerce and the Stafford Energy Advisory Committee.

SBEA Quarterly Contractor Meeting held in September.

Smart Living® - Museum Partnerships & Science Center

Budget ($000's)			Demand Savings (kW)		Lifetime Usage Savings (kWh)	
Annual Goal	$	566	Annual Goal	na	Annual Goal	na
YTD Actual	$	152	YTD Actual	na	YTD Actual	na
% Expended		27%	% Goal Achieved	na	% Goal Achieved	na

The *Energy-Recycling* Connection exhibit was installed/finalized in Quarter Three with a Grand Opening scheduled for Quarter Four.

Museum Partnership program worked with CT Technical High Schools to finalize agreement to fund the construction and energy-efficient technologies installed in E-Houses at 12 additional CT Technical High School sites.

Museum Partnership program worked with Stepping Stones Museum for Children to establish a new energy education project to provide energy efficiency exhibits, media and programming at the museums site in Norwalk. The new partnership, starting in 2013, will also continue the tour of the Mini Conservation Quest exhibit. The traveling exhibit will continue to travel to 25 libraries, schools, nature centers and public spaces annually to bring the message of energy efficiency and renewable energy to the entire state.

Planning for a New SmartLiving® Center Location, Exhibits and Programming was initiated in Quarter Three.

3rd Quarter 2012

Clean Energy Communities

Budget ($000's)		Demand Savings (kW)		Lifetime Usage Savings (kWh)	
Annual Goal	**$ 1,300**	Annual Goal	**na**	Annual Goal	**na**
YTD Actual	**$ 388**	YTD Actual	**na**	YTD Actual	**na**
% Expended	**30%**	% Goal Achieved	**na**	% Goal Achieved	**na**

Clean Energy Communities

Through Quarter Three, Thirteen Communities signed the new Clean Energy Communities pledge: Bridgeport, Bristol, Easton, Fairfield , Hamden, Milford, North Haven, Plainville, Somers, Stafford, Trumbull and Woodbridge.

Program administrators had also presented the pledge to 31 other town councils/committees for review/approvals/votes.

CEC program administrators helped Interreligious Eco-Justice Network launch its Cool Congregations Challenge and started preparatory work for Quarter Four Home Energy Solutions workshops, outreach and recruitment within ten faith communities across the state.

CEC program administrators launched HES mailings, Neighborhood Canvassing, Small Business Forums and outreach to communities across state, including: Bloomfield, Bridgeport, Newtown, Stafford and Trumbull.

Public Relations Outreach initiative to launch CEC program resulted in 77 media articles ranging from Hartford Courant, Hartford Business Journal, CT Environmental Headlines and Patches.

Behavior Pilot

Year Two of the Behavior Pilot was launched in July 2012. The purpose of Year Two is to determine the effectiveness of neighbor comparison reports on normal usage electric customers (5,000-12,000 kWh annual usage).

K-12 Education

Budget ($000's)			Demand Savings (kW)		Lifetime Usage Savings (kWh)	
Annual Goal	$	325	Annual Goal	na	Annual Goal	na
YTD Actual	$	185	YTD Actual	na	YTD Actual	na
% Expended		57%	% Goal Achieved	na	% Goal Achieved	na

Eleven *eesmarts* Professional Development workshops were held in the 3rd Quarter.

- EEsmarts Climate Change; Grades Six to Twelve; Wesleyan, Middletown.
- Workshop; Pre-K to Second; Wesleyan, Middletown.
- Wind and Solar Workshop; High School; Wesleyan, Middletown.
- Workshop; Grades Three to Five; SmartLiving Center, Orange.
- Climate Change Workshop; Grades Three to Five; SmartLiving Center, Orange.
- Workshop; Grades Six to Nine; Wesleyan, Middletown.

1,749 *eesmarts* lessons were distributed to Connecticut educators.

Two eeEvents were held in the 3rd Quarter.

- August 24th—Capitol Regional Education Council Fall Staff Event, Hartford.
- September 8th—CT Green Expo, New Haven.

ISO-NE Load Response

Budget ($000's)		Demand Savings (kW)		Lifetime Usage Savings (kWh)	
Annual Goal	**$ 3,500**	Annual Goal	**100,000**	Annual Goal	**na**
YTD Actual	**$ 2,783**	YTD Actual	**84,980**	YTD Actual	**na**
% Expended	**80%**	% Goal Achieved	**85%**	% Goal Achieved	**na**

Megawatt (MW) savings based on summer performance event July 2012.

Revenues from the Forward Capacity Market will support customer payments and C&LM program administration.

YTD actual spending reflects accruals for customer payments and 3rd Party Demand Designated Entity (DDE) charges for metering and ISO-NE data reporting.

Walgreens Distribution Center in Windsor Locks agreed to be the Demand Response group's Test Case for the Automated Demand Response System Interface.

Research, Development & Demonstration (RD&D)

Budget ($000's)			Demand Savings (kW)		Lifetime Usage Savings (kWh)	
Annual Goal	$	350	Annual Goal	na	Annual Goal	na
YTD Actual	$	139	YTD Actual	na	YTD Actual	na
% Expended		40%	% Goal Achieved	na	% Goal Achieved	na

- Energy Efficiency Fund's C&LM Joint Utility RD&D Program Policy Working Group (PWG):
  – Monthly meetings conducted to review and disposition proposed new technologies in support of the Energy Efficiency Fund's EEB Roadmap Process; (see next slide for 3rd quarter status). Provided due diligence review of on-going projects and final reports; and provided periodic status updates of key emerging prototype technologies such as: LED Street and Area Lighting; T12 to T5 Lighting Adapters; Retrofit Energy Saving Devices (RESD); Interior Storm Windows; Electrodeless HID Plasma Lighting, etc.

- Energy Efficiency Fund's C&LM Joint utility RD&D Program Staff:
  - On-going technical support to C&LM programs with review of proposed new technologies submitted directly to C&LM program administrators; and continue to provide technical liaison with both external and internal agencies such as: Electric Power Research Institute (EPRI; U.S. DOE's National Labs; U.S. EPA's Energy Star Program; Consortium for Energy Efficiency (CEE); Northwest Energy Efficiency Alliance (NEEA); Northeast Energy Efficiency Partnerships (NEEP); Rensselaer Polytechnic Institute's Lighting Research Center (LRC); CT Clean Energy Finance and Investment Authority (CEFIA); E-Source's "End Source Technology Leadership Council"; NU's Asset Management Department; NU's Enterprise Planning Department; etc.

3rd Quarter 2012

Research, Development & Demonstration (RD&D)

- SOLATUBE Daylighting System – Wilco Sales & Service, Inc. – Wes Roussel
  Approved – Referred to C/I Programs for consideration as a "Custom Measure." (Completed, 9/19/12)

- ULTRALIGHT Incandescent Lamp Economizer – Ultimate Interfaces Corp – Thomas Arciuolo
  Tabled – Pending receipt of responses to RD&D Staff & PWG Comments. (Inactive – 6-mo) (3/06/12)

- T8 LED Tube Light – ATG Electronics – Kevin Townley, Eric Choy
  Tabled – Pending receipt of responses to RD&D Staff & PWG Comments. (Inactive, 16-mo) (5/13/11)

- Fitch Fuel Catalyst – (RESD) - Advanced Power Systems Int. (APSI) – Alan M. "Mickey" Wiernasz
  Tabled – Pending receipt of responses to RD&D Staff & PWG Comments. (Inactive, 22-mo) (11/30/10)

Joint-Utility RD&D Program Co-Sponsorship – 2012:

Rensselaer Polytechnic Institute, Lighting Research Center's, National Lighting Product Information Program (NLPIP). NLPIP provides manufacturer-specific lighting product evaluation results to identify and facilitate use of efficient, quality lighting products. The program's testing lab is one of only three non-manufacturer National Voluntary Laboratory Accreditation Program (NVLAP) accredited labs in the U.S. NLPIP has gained a reputation as being the *"Consumer Reports"* of the lighting industry. To maintain objectivity, NLPIP does not accept funding from manufacturers. Other current NLPIP co-sponsors include: New York State Energy Research and Development Authority (NYSERDA); and Natural Resources Canada (NRCAN).

The United Illuminating Company

Conservation & Load Management

Program Year 2012

Quarter 3 Report

November 14, 2012

Overall Energy Savings & Expenditures

- **Savings (000's kWh)**
  - Q3 Actual 33,932
  - Annual Goal 44,288
  - % Goal 77%
- **Savings (kW)**
  - Q3 Actual 3,759
  - Annual Goal 5,675
  - % Goal 66%
- **Budget ($000's)**
  - Q3 Actual $16,998
  - Annual Budget** $21,370
  - % Budget Actual 80%
  - Commitments* $ 3,974

*included in actual expenditures

Highlights

- Partnered with CEFIA to develop the C-PACE technical guide
- Job Fair in partnership w/Gateway CC, Veterans Assoc. & CT Step Up program
  - 19 SB contractors represented yielding 8 full time positions.
- SBEA "Pay for Performance" Lead Generating Partnerships produce
  - 89 leads/81 audits/30 signed/installed = 37%
- Developed a seminar and webinar series facilitating training for the electrical and mechanical trades both Residential and Commercial codes
- Released HES and HES-IE RFP

Other Revenues

CT Class III Certificates revenue year to date: $ 257,237 (Budget: $900K)

Other Demand Resource revenue year to date: $ 1,591,321 (Budget: $1.6M)

RGGI Funds year to date: $ 1,169,709 (Budget: $1M)

Retail Products

- **Savings (000's kWh)**
  - Q3 Actual 16,400
  - Annual Goal 14,731
  - % Goal 111%
- **Savings (kW)**
  - Q3 Actual 1,460
  - Annual Goal 1,326
  - % Goal 110%
- **Budget ($000's)**
  - Q3 Actual $ 2,250
  - Annual Budget $ 1,756
  - % Budget 128%
  - Commitments* $ 512

*included in Actual Expenditures

Sales Performance

- 189,695 CFLs, 2,208 Fixtures, 21,196 LEDs

Lighting Products under MOU

- 27 MOUs
- 14 manufactures and 13 retailers
- 17 MOUs with LED products

Events

- Corporate lighting events – 4 (17 YTD)
- In-Store demonstrations – 18 (36 YTD)
- Industry training – 1 (2 YTD)

- Continued support for TopTen USA. Finalized appliance rebates to be launched in October 2012.
- Established scope of work for mystery shopper to assess retailer understanding of and compliance with NCP program guidelines

Residential New Construction

- **Savings (Numbers of Units)**
  - Completed Homes 7
  - Annual Goal 113
  - % Goal 6%
- **Savings (kW)**
  - Q3 Actual 5
  - Annual Goal 103
  - % Goal 5%
- **Budget ($000's)**
  - Q3 Actual $ 279
    Annual Budget $ 177
  - % Budget 158%
  - Commitments* $ 28

*included in actual expenditures

- Income eligible market segment continues to lead the way with ENERGY STAR® Homes version 3.0 compliance.
- Increased number of multi-family projects are under development for 2013.
- Workshops designed to assist the construction industry with the adoption of the new ENERGY STAR® Homes version 3.0 have been offered.
- 2009 IECC training seminars are being conducted, with the support of State of Connecticut Department of Construction Services, local building departments, for builders, architects, engineers, HVAC contractors, etc.

Home Energy Solutions Income Eligible

- **Savings (000's kWh)**
  - Q3 Actual 2,230
  - Annual Goal 3,070
  - % Goal 73%
- **Savings (kW)**
  - Q3 Actual 105
  - Annual Goal 210
  - % Goal 50%
- **Budget ($000's)**
  - Q3 Actual $ 2,000
  - Annual Budget $ 2,118
  - % Budget 94%
  - Commitments $ 273

*included in actual expenditures

Customers served – 1,298

Strong program participation in Q3 based on the following activities:

- Partnered with the Yale Carbon Fund with the express purpose of increasing insulation in IE homes throughout the City of New Haven.
- Completed weatherization of the "Bishop Curtis Homes - Bridgeport" – an income qualified, non-profit senior complex.
- Looking forward: Third straight year, partnering with the City of Bridgeport Conservation Corps. for door to door canvassing of HES-IE program through the Conservation Corps.

Home Energy Solutions Income Eligible

Marketing Results

HES-IE Low Income	Target	Qty/Impressions	Mktg Cost	Leads	Response Rate	Cost per Lead	Sales	Close Rate	Cost Per Sale (project)
PR Campaign	Projects	1,687,923	$ 6,500	75	0.00%	$ 86.67	33	44.00%	$ 196.97
MAPP Mailing	Projects	3,037	$ 1,312	72	2.37%	$ 18.22	30	41.67%	$ 43.73
C0021 - Door hanger	HES-IE Projects	500	$ 575	30	6.00%	$ 19.17	25	83.33%	$ 23.00
JABS1201 Source Insert	HES-IE Projects	325,000	$ 1	1	0.00%	$ 1.00	-	0.00%	$ -
TOTAL HES-IE Actuals	**Projects**	**2,016,460**	**$ 8,388**	**178**	**0.01%**	**$ 47.12**	**88**	**49.44%**	**$ 95.32**

Home Energy Solutions

- **Savings (000's kWh)**
  - Q3 Actual 2,145
  - Annual Goal 3,516
  - % Goal 61%

- **Savings (kW)**
  - Q3 Actual 450
  - Annual Goal 734
  - % Goal 61%

- **Budget ($000's)**
  - Q3 Actual $ 2,210
  - Annual Budget $ 2,282
  - % Goal 97%
  - Commitments* $ 389

*included in actual expenditures

Customers served - 4,340

- 10 vendors using the EnerNet Mobile Android application in customers homes
  - Streamlined data collection
  - Customized reports for customer
- Home Energy Score Pilot program
  - 11 vendors participating in a Home Energy Score pilot
  - DOE program used to label homes on a scale of 1-10 based on their energy use
- LEDs
  - Negotiated competitive pricing to offer LEDs at a small co-pay to HES participants
- HVAC program:
  - Continue moving the QIV program forward, a contract has been awarded for the training and technical support of participating HVAC contractors.
    - A core group of contractors will be trained and supported initially to maintain appropriate levels of quality control

Home Energy Solutions

Marketing Results

HES	Target	Qty/Impressions	Mktg Cost	Leads	Response Rate	Cost per Lead	Sales	Close Rate	Cost Per Sale (project)
HES PR & Media Campaign	Projects	1,687,923	$ 6,500	78	0.00%	$ 83.33	42	53.85%	$ 154.76
HES TV Ad Campaign - JACT1201	HES Projects	402,000	$ 1	18	0.00%	$ 0.06	8	44.44%	$ 0.13
	HES-IE Projects	402,000	$ 1	1	0.00%	$ 1.00	-	0	$ -
HES DM		3,528	$ 3,684	93	2.64%	$ 39.61	47	50.54%	$ 78.38
JABS1201 Source Insert	HES Projects	325,000	$ 1	11	0.00%	$ 0.09	6	54.55%	$ 0.17
TOTAL Actuals	**Projects**	**2,820,451**	**$ 10,187**	**201**	**0.01%**	**$ 50.68**	**103**	**51.24%**	**$ 98.90**

Q3 *eesmarts*

- 11 Workshops Held
- 2 eeEvents

Q3 Milestones

- **Workshops:**
  - July 2-3 eesmarts Climate Change 6-12 (Wesleyan)
  - July 10-12 Grades PK-2 Workshop (Wesleyan)
  - July 10-12 Wind & Solar Workshop (HS) (Wesleyan)
  - July 16-18 Grades 3-5 Workshop (SmartLiving Center)
  - July 19-20 Grades 3-5 Climate Change (SmartLiving Center)
  - July 24-26 Grades 6-9 Workshop (Wesleyan)
- **eeEvents:**
  - August 24 CREC Fall Staff Event (CT Convention Center)
  - September 8 CT Green Expo (New Haven)

Connecticut Energy Efficiency and Healthy Homes Initiative (CTEHHI)

Production – Q3

- 546 audits completed
- 386 work orders issued
- 273 add-on measure visits completed

Visibility – Q3

- Promoted Energy Efficiency Fund and CTEHHI at the state and regional levels:
- STATE: CT Department of Public Health Annual Conference (Exhibitor)
- REGIONAL: Panel Expert in September at New England Community Action Conference

Training – Q3

- 30 Trained Healthy Homes Certified Inspectors

& Museum Partnerships

Q3 SmartLiving Center:

- 1,835 Visitors
  - 52% Adults
  - 48% Children
- 8 Seminar
- 18 Meetings
- 33 School Tours

Q3 Milestones SmartLiving Center:

Seminars:

- Solar Saturdays at the SLC
- Home Energy Efficiency: Improves Your Comfort and Saves You Money
- LEED NC & CI in Action: A Contractor's Perspective
- Ductless Heat Pump Certification

Q3 Milestones Museum Partnerships:

CRRA Trash Museum opened their new exhibit *The Energy-Recycling Connection*. This exhibit was sponsored by CEEF.

Energy Conscious Blueprint*

- **Savings (000's kWh)**
  - Q3 Actual 2,982
  - Annual Goal 6,738
  - % Goal 44%

- **Savings (kW)**
  - Q3 Actual 484
  - Annual Goal 1,093
  - % Goal 44%

- **Budget ($000's)**
  - Q3 Actual $1,777
  - Annual Budget $2,386
  - % Budget Actual 74%
  - Commitments* $ 964

*included in actual expenditures

- Limited new construction opportunities
  - 145 projects closed out – mostly new equipment
    - 81 projects signed
    - 50% less savings per project compared to 2011
    - 25 projects are CCH rebates (17% of 145)
- 12 signed / installed projects exceed lighting code by 30%
- Conducted approximately 6 training sessions
  - Electrical and Mechanical Code Webinars;
  - Training with Code officials – IECC 2009;
  - Cooling Distribution Equipment and Lighting Technologies

* Includes Energy Blueprint, Motors and CT Cool Choice.

Energy Opportunities*

- **Savings (000's kWh)**
  - Q3 Actual 5,699
  - Annual Goal 10,916
  - % Goal 52%
- **Savings (kW)**
  - Q3 Actual 661
  - Annual Goal 1,348
  - % Goal 49%
- **Budget ($000's)**
  - Q3 Actual $ 2,744
  - Annual Budget $ 3,705
  - % Budget Actual 74%
  - Commitments* $ 1,808

*included in actual expenditures

- 100 projects were closed out ; 24% less savings per project (compared to 2011)
  - 77 projects signed / to be installed
  - 24 (177) or 14% comprehensive projects signed
  - 59 (177) or 33% projects using LED or Induction technologies
- Partnered with CEFIA to develop the C-PACE technical guide
- Continued involvement with DEEP's "Lead by Example" TAC committee
  - 3 projects approved for implementation = 1,214,661 kWh saved
- RetroCx – 1 project 95% completed, 2 projects being developed
- O&M Services - developed a low cost Re-Lamping incentive

* Includes Municipal Energy Opportunities, and O&M Services

Small Business Energy Advantage

- **Savings (000's kWh)**
  - Q3 Actual 4,450
  - Annual Goal 5,075
  - % Goal 88%
- **Savings (kW)**
  - Q3 Actual 594
  - Annual Goal 861
  - % Goal 69%
- **Budget ($000's)**
  - Q3 Actual $ 1,672
  - Annual Budget $ 2,228
  - % Budget Actual 75%
  - Commitments* $ 0

*included in actual expenditures

- 188 projects closed out, average kWh savings/project is 64% greater (compared to 2011)
- 99 projects signed / installed
  - 58 comprehensive projects signed (20% of 287)
  - 151 projects using LED or Induction technology (52% of 287)
- Shiloh Baptist/Bridgeport Regional Sustainability Summit inner-city initiative
  - 48 leads/37 audits/13 signed or installed (13/37 = 35%)
- Operation Fuel's Project Best. - Small Business conservation workshops
  - 41 leads/41 audits/17 signed or installed (17/41 = 41.5%)
- Job fair in partnership w/Gateway CC, Veterans Assoc. & CT Step Up program
  - 19 SB contractors represented yielding 8 full time positions.

Clean Energy Communities

Communities Signed

Bridgeport
Easton
Fairfield
Hamden
Milford
North Branford
North Haven
Orange
Trumbull
West Haven
Woodbridge

Before the Board for Signing
*East Haven
*New Haven

Community Events

Bridgeport
Hamden
North Branford
Trumbull
West Haven
Woodbridge

Clean Energy Communities is Teaming Up with the Municipality to Promote HES/IE, via direct mail to at risk residents, engaging through community events, such as local franchisees and other community events to promote HES and HES/IE.

UI is using targeted print inserts and online advertising to promote HES in these communities and other communities as well.

Clean Energy Communities

Performance Based Contracts

Shiloh Baptist Church
First Calvary Baptist Church
Cool Congregations

Performance Based Contracts (2013)

Center for Latino Progress

Outreach to targeted areas for HES/IE and Small Business. We have strengthened our partnerships in the Latino and Faith Based populations in order to reach more customers. By partnering with these nonprofit organizations we have successfully been able to conduct more educational classes, informational sessions in neighborhoods and communities that we are sometimes challenged with. These alliances have increased program participation and energy conservation awareness.