
Quarterly Report of the Program Administrators

Fourth Quarter, 2013

February 11, 2014

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**QUARTERLY REPORT TO THE EEAC
QUARTER 4, 2013**

February 11, 2014

I. Introduction

Pursuant to the requirements of the Green Communities Act (“GCA”), codified at G.L. c. 25, § 22(d), “The electric and natural gas distribution companies and municipal aggregators shall provide quarterly reports to the council on the implementation of their respective plans. The reports shall include a description of the program administrator’s progress in implementing the plan, a summary of the savings secured to date and such other information as the council shall determine.”

Building upon this legislative mandate, as well as the Order of the Department of Public Utilities (“Department”) in D.P.U. 12-100 – D.P.U. 12-111 (the “Order”), dated January 31, 2013, approving Three-Year Energy Efficiency Plans (the “Plans”) for each Program Administrator (“PA”),¹ this document serves to report on PA activities throughout the Commonwealth during the fourth quarter of 2013. This document presents narrative status updates regarding program implementation and specific areas of interest as requested by the Energy Efficiency Advisory Council (“EEAC” or “Council”), followed by quantitative data set forth at Attachment A and additional EM&V information set forth at Attachment B.

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¹ The Department of Public Utilities requires that these Quarterly Reports be provided to it as well for informational purposes. Orders in D.P.U. 09-116 – D.P.U. 09-120 and D.P.U. 09-121 – D.P.U. 09-128 (January 28, 2010).

II. 2013 Council Priorities Update

1. *Achieve at least 100% of the savings and benefits goals set for the 2013 program year, and emphasize key actions to be implemented in 2013 for sustained program success going forward.*

ACTION: Based on the preliminary Q4 data, the lifetime savings achieved for 2013 as a percentage of planned savings for electric PAs is 89% and for gas PAs is 101%. Looking at these lifetime savings by sector, electric PAs achieved 135% of residential goals, 122% of low-income goals and 80% of commercial and industrial (“C&I”) goals; gas PAs achieved 125% of residential goals, 160% of low-income goals and 74% of C&I goals. To date, the total benefits achieved for 2013 as a percentage of total planned benefits for electric PAs is 96% and for gas PAs is 100%. As anticipated, achievement of C&I goals was a challenge for both gas and electric PAs. In Q4, all PAs were engaged in efforts to increase C&I savings, including particular focus on CHP, segmentation, seeking deeper savings, new technology, hiring staff and adding vendors, and improving productivity. For additional detailed information on the efforts made by the PAs in Q4 toward achieving their savings and benefits goals, please see Sections III through VIII.

2. *Continue to Improve the Cost Efficiency of Program Delivery.* Identify and quantify cost efficiencies realized in the 2010-2012 programs, pursue and implement additional efficiencies, and continue to improve the cost efficiency of program delivery. In addition, pursue outside funding and non-low-income financing options to leverage program funds and maximize benefits.

ACTION: For 2013, the PAs achieved historic savings and benefits goals while driving costs lower than planned. To date, the total spend for 2013 as a percentage of planned budgets for electric PAs is 89% and for gas PAs is 90%. Looking at the total spend by sector, electric PAs spent 113% of residential budget, 93% of low-income budget and 74% of C&I budget; and gas PAs spent 103% of residential budget, 101% of low-income budget and 61% of C&I budget. In Q4, PAs continued to review the findings of their 2010-2012 data analysis on costs to achieve and to work together to achieve the greatest savings in the most cost-efficient manner, including minimizing administrative costs through their statewide collaborative process.

3. *Support Key Program Development and Implementation Needs, with a Focus on Achieving Deeper Savings and Reaching All Customer Segments. Continuously Improve the Programs and Initiatives.*

ACTIONS:

- In the fourth quarter, the PAs presented to the EEAC on their C&I, residential and low income efforts.
- The Residential Barriers Working Group (“RBWG”) continued meeting and making progress in Q4. The RBWG met on October 30, 2013 for a discussion of landlord tenant issues with Renew Boston. The RBWG will meet during the first quarter of 2014 to

discuss the evaluation of the Efficient Neighborhoods+ Initiative upon its completion.

- During Q4, the new leadership for the statewide Massachusetts Technology Assessment Committee (“MTAC”) updated MTAC’s internal charter to clarify the committee mission, structure, roles and responsibilities. The committee also improved MTAC’s visibility on the Mass Save website to encourage new technology applications for MTAC review. MTAC has been active in reaching out to similar New England utility based new technology working groups to leverage regional knowledge and experience. During Q4, the Committee received and evaluated three inquiries, including one Residential and two C&I. For additional information, please see Section IV below.
- The Mass Save Statewide Awareness campaign ran September 1 to November 10, 2013. In Q4, digital banners with the Residential, Commercial & Industrial and multi-cultural messaging continued to run on 16 ad networks, regional and local websites. The ads were optimized with the best performing ads from Q3 running on all sites. The mobile (smartphones & tablets) continued into 4th quarter to reach the Residential and Commercial & Industrial targets; this ended on October 26. Paid search and Facebook ads also ran until November 10. For additional information, please see Section V below.
- For additional detailed information on the efforts made by the PAs in Q4 toward achieving this priority, please see Sections III through VIII.

4. *Develop and Implement a Statewide Energy Efficiency Database.* In order to enhance data availability and transparency, reduce administrative costs, and enable better and more efficient data analysis, the Council and its Consultants should work with the PAs to design, develop, and implement a statewide database that is readily accessible, reliable, efficient, and able to evolve to meet growing and changing energy efficiency data needs.

ACTION: In Q4, the PAs actively participated in EEAC database working group, subcommittee and other meetings convened by Energy Platforms, the EEAC’s database facilitator. The PAs provided comments on Energy Platforms’ conceptual proposal on December 23, 2013. The PAs are committed to working with DOER, the EEAC, and the Department to achieve the development of a statewide database that achieves the goals of this priority. The PAs have budgeted \$500,000 in each year of the 2013-2015 Plan for the design and development of a statewide database and associated costs. In Q4, the PAs began working on an interim reporting solution to assist in reporting while the statewide database is being scoped and developed. The PAs are currently developing an online statewide data reporting repository that is user-friendly, effective and timely. The PAs expect this tool will improve access by stakeholders to currently reported PA data by providing a single source of information for the most up-to-date reported initiative-level PA data. This tool will provide PA data in different formats and views and will automate the statewide view from 12 individual PAs. The PAs will continue their commitment to a statewide database in 2014.

5. *Identify and Implement Best Practices.*

Continue to identify and integrate best practices, including the customer experience, into the

energy efficiency planning and implementation efforts consistently across service territories.

ACTION: As discussed in more detail in Sections III through VIII, the PAs continued to build on the experience of the initial three-year plan by leveraging their good working relationships to better coordinate their efforts and share ideas and best practices to refine their approach to the successful delivery of energy efficiency. The PAs continued to have regular meetings of their management committees to facilitate the process of enhanced integration and coordination between gas and electric programs. The PAs also were actively engaged in the low-income best practices group convened by LEAN. Further, the PAs continued their ongoing and consistent meeting and engagement with the Council’s consultants, in order to benefit from ideas/suggestions based on the consultants’ expertise and experience. Lastly, the PAs continue their active search and review of new technologies through the MTAC.

6. *Evaluation Efforts*

Ensure the accurate analysis and quantification of the savings, benefits, and costs of the energy efficiency programs through objective and unbiased planning, tracking, evaluation measurement and verification (“EM&V”), and reporting. Participate in the development of avoided cost values as part of the regional avoided costs study (Avoided Energy Supply Component or AESC).

ACTION: In the fourth quarter, work on the Evaluation Strategic Plan (“ESP”) for 2013-2014 was completed, as the result of a productive collaboration by the PAs, the Council’s consultants and the evaluation contractors. This was a significant undertaking as historically evaluation planning in Massachusetts was largely completed in one-year cycles with study efforts being a function of past evaluation activities and changes in savings levels or implementation of programs, with the purpose of describing the evaluation planning process and describing studies, both planned and in progress. The PAs presented at the October EEAC meeting on the development, purpose and scope of the 2013-2014 ESP. The PAs have completed 117 studies since 2010 and have over 50 studies planned or in progress. The 2013 Avoided Energy Supply Cost (“AESC”) Study was finalized on July 12, 2013 after extensive review by the AESC Study Group, which is comprised of regional stakeholders, including the PAs, with leadership by the Massachusetts PAs. The PAs presented on this topic at the October EEAC meeting. For additional details on the PAs’ evaluation activities in Q4, please see Section VI below and the EM&V Gantt chart and a related evaluation table included as Attachment B.

III. Gas and Electric Program Highlights

Since the Department of Public Utilities approved the Gas and Electric Three-Year Energy Efficiency Plans on January 31, 2013, the Program Administrators have been proceeding with the implementation of their EEAC-endorsed 2013–2015 Plans.

In Attachment A, the PAs present quantitative cost and savings data, along with other data. The PAs will keep the EEAC apprised of significant cost and savings variances from Plan goals that become apparent as the PAs continue to implement programs over the three years of the Plan.

RESIDENTIAL SECTOR

Residential New Construction & Major Renovation

Through the end of the fourth quarter, the Program completed over 3,741 units statewide. PAs reached the statewide goal, but not all PAs reached individual 2013 goals. In those territories that fell short, recruitment plans have been implemented focusing on non-participating builders.

As of October 2013, 134 communities have adopted the “Stretch Energy Code.” Several additional towns across the Commonwealth are looking to adopt the new “Stretch Energy Code”. As in prior years, builders will continue to look to the PAs to provide training, technical assistance and incentives to meet the new energy code. Currently, 50 Home Energy Rating companies receive this type of support through the program.

New in 2013, the prescriptive path offering had two projects enrolled and working with HERS raters to complete the program.

During the fourth quarter of 2013, the Major Renovation Pilot officially closed out all remaining active projects. One project remained unfinished and it was then transferred into Residential New Construction. In three years, 62 units completed through the Pilot.

RESIDENTIAL SECTOR HIGH-RISE

At the end of 2013, 18 projects with 1,650 residential units completed the multi-family high-rise program path. Seven projects were rolled over to the 2014 program year due to construction delays. Recruitment efforts among the most active multi-family developers continued throughout the last quarter with weekly lunch and learn events, project reviews and site meetings. Several new web-based search tools were brought online during the past quarter to assist in building a project recruitment pipeline.

C&I COORDINATION

During the last quarter of 2014, the C&I sectors of NSTAR and NGRID funded a contract to help deliver additional savings and perform additional outreach within the Multi-family High Rise building sector on their behalf. NSTAR and NGRID have dedicated staff to begin the review/expansion with monthly program and project meetings scheduled to aid in the

coordination.

Home Energy Services and HEAT Loan

2013 was a strong year for Home Energy Services, with most PAs meeting or exceeding savings goals. Over the course of the year, the PAs were able to incorporate many new program enhancements as well as implemented various new initiatives including the following:

- Electric PAs' introduction of LEDs and Advanced Power Strips during the Home Energy Assessment
- Pre-Weatherization Barrier Offer
- Early Boiler Replacement Rebate
- Efficient Neighborhoods+SM Initiative
- Cross Program Promotions
- 2-4 Unit Incentive (Efficient Neighborhoods+SM and Renew Boston)
- Enhanced Customer Bonus Initiatives (for applicable PAs)
- Contractor Incentives (for applicable PAs)
- Participating Contractor Marketing Workshops

The Contractors Best Practices Working Group (“BPWG”) had many accomplishments in 2013. A new committee of BPWG Home Performance Contractor (“HPC”) and Independent Installation Contractor (“IIC”) representatives were elected in Q3. Three new contractors were elected, and the group continues to make positive strides towards increasing quality and customer satisfaction as well as addressing other best practices across the program.

PAs were committed to workforce development in 2013, offering subsidies for various trainings, including weatherization boot camps, combustion safety testing, and one-on-one mentoring sessions. PAs also expanded training opportunities to offer IICs and HPCs a Marketing Workshop, to review marketing best practices in the Home Performance industry, as well as teach the basics of branding, marketing, and strategy. PAs continue to explore opportunities for additional training to enhance the skills of participating contractors.

The HEAT Loan was in high demand throughout the 4th quarter, and the PAs saw an extremely high number of authorizations, including multiple measures financed. The PAs have exceeded the 2012 HEAT Loan authorizations and total amount financed.

Multi-Family Retrofit

Through the completion of the fourth quarter of 2013, some PAs exceeded annual spending and savings goals, while others struggled, mainly due to recommendations from assessments not being implemented by the facility in various Multi-Family housing facilities from region to region.

The Multi-Family Market Integrator (“MMI”) continues to report a trend of successfully enrolling facilities into the program as a result of increased marketing awareness as well as previously established relationships with facility owners/ property managers.

The MMI received a total of 1570 incoming calls in the fourth quarter of 2012, and enrolled 229 facilities into the program. With the conclusion of 2013, the MMI reported a year over year increase of 19% in incoming calls for Multi-Family services.

In the fourth quarter, both Residential and C&I representatives of the Multi-Family working group continued to meet regularly to develop and refine program enhancements as outlined in the Three-Year Plan and launched the Statewide Multi-Family Energy Action Plan for implementation by Multi-Family Program Vendors.

Electric Residential Cooling and Heating

In whole, the statewide Cool Smart initiative exceeded its annual production goals, reaching 202% of its equipment rebate goals, 157% of its duct sealing goals, and 151% of its early equipment replacement goals. In addition, over 3,500 Heat Pump Water Heaters were rebated through the program in 2013, far exceeding anticipated production.

The QIV (Quality Installation Verification) initiative had another strong year. Cool Smart trainers held 54 classes, trained 452 technicians who represented 138 new companies and 153 companies already participating in Cool Smart. These technicians quickly became engaged in the QIV testing and helped contribute to the overwhelming success of QIV, which reached production in excess of 350% of state-wide goals.

PAs created an electronic (online) rebate submission process, which launched January 1st, for the 2014 program year. This will now give customers the option of the mail-in rebate or the electronic approach, which will improve the customer experience and reduce fulfillment time.

Contractors have been very active in working with their customers to utilize the 0% HEAT loan this year, where approximately 25% HEAT loans generated incorporate AC or Heat Pump equipment.

Cool Smart held its annual fall Cool Talk on November 6, 2013 at the Holiday Inn in Marlboro, MA. Over 50 HVAC contractors and equipment distributors attended to learn about the 2014 program offerings and to provide feedback to program sponsors.

Gas Residential Heating and Water Heating

PAs continued to experience a steady demand for rebates. As a result, a majority of PAs were able to meet savings goals.

PAs finalized the new rebate forms for the 2014 calendar year. A major enhancement developed for 2014 will allow customers to complete the rebate application via online submission and also receive prepaid cards for certain measures. The PAs continued steady and consistent direct outreach to various manufacturers and supply houses in sales training and rebate distribution over the course of the quarter.

For other highlights and Q4 trade ally training, the PAs conducted and participated in the following events:

- On October 29th, PAs joined Bill VanNorman from Ed-OS and Lee Ensminger, National Sales Manager for Crown Boilers, for a counter day at George O'Brien Supply Company in Dennis, MA. Approximately 25 contractors attended the event to learn about the Crown High Efficiency Bimini Boiler and their Mega-Stor Indirect Water Heater. The event provided the PAs the opportunity to gather feedback on the recently completed Early Boiler Replacement Program and to assure attendees that the rebate program would be continuing in 2014.
- On November 6th, PAs attended the Grand Opening counter day at F.W. Webb Company in Falmouth MA. Approximately 25 contractors stopped by the new branch. PAs fielded several questions concerning 2014 rebate programs.

PAs engaged with ICF to perform additional outreach to distributors and manufacturers in order to get the distributors and manufacturers to link directly to the incentives on the GasNetworks website. PAs continue direct outreach to trade allies through the distribution of the GasNetworks quarterly e-newsletter. In the month of December, the GasNetworks e-Newsletter received an open rate of 40.1%, which is well above industry standard.

Residential Lighting

The ENERGY STAR® Lighting initiative ended the year strong, with all PAs surpassing lighting goals. While CFLs continue to be the backbone of the lighting initiative, LEDs saw dramatic adoption this year. The PAs also launched a Market Lift promotion with Costco/FEIT in the fourth quarter, which is showing promising results. The Market Lift promotion will run for six months and final results will be realized in early Q2 of 2014.

PAs executed a special lighting promotion in partnership with General Electric during the month of October. The purpose of this promotion was to educate consumers on how to select the right bulb for specific rooms in their home. Special signage was developed and placed in Wal-Mart, Sam's Club, Aubuchon, Price Chopper, True Value, and ACE Hardware. The promotion was successful with Wal-Mart reporting a 34% increase in CFL sales in comparison to the same period in 2012.

The promotion also had a sweepstakes component as well where consumers could enter via the Facebook.com/MassSave page to win one of five room lighting packs that included different types of CFLs and LEDs to retrofit a bedroom, bathroom, living room, kitchen, or home office. Similar sweepstakes were executed in partnership with Cordelia through the @MassSave twitter page and with Philips through Facebook.

Residential Consumer Products

The Consumer Products program saw varying results from individual PAs. The ENERGY STAR refrigerator category struggled, which may have been a result of a lower incentive level

in 2013. The introduction of TopTen™ tiered rebates for refrigerators and freezers in 2013 showed slow adoption, which can be expected with any new product category. The PAs saw success with both ENERGY STAR and TopTen televisions and even saw a jump in pool pump rebates this year.

As a result of the Mass Save Consumer Product and Lighting Summit, the PAs began development of new point-of-purchase (“POP”) materials to address some of the issues raised by retailers and manufacturers during the all-day meeting. New POP materials were developed to explain the benefits of TopTen and ENERGY STAR Most Efficient appliances in preparation of their inclusion in the 2014 program. Enhancements to product rebates and clings were made as well to increase their effectiveness at point of sale.

LOW-INCOME SECTOR

Low-Income New Construction

The Low-Income New Construction initiative has seen 412 completions through the fourth quarter of 2013. The Low Income sector is not seeing the building activity that the other sectors are experiencing. The PAs continue to aggressively seek out low-income projects throughout the Commonwealth. Account Managers have developed business plans with significant attention to Low-Income outreach. Additional marketing efforts to statewide Low-Income funding sources and statewide Low-Income advocates were increased in 2013. Account Managers have provided workshops on the programs and on other related topics to conferences and other meetings focused to the low-income arena. Developers of low-income projects have been targeted with direct marketing and trainings that support the program.

Under the Multi-Family High-Rise (“MFHR”) program path, 2013 completions yielded 134 low-income units. Recruitment efforts for both high-rise and low-rise are coordinated through all of the program account managers with a specific focus on energy consultants and design firms who specialize in low-income projects. Due to the prolonged construction schedule of most MFHR projects, present day recruitment efforts typically yield projects that will be completing in 2015.

Low Income Single Family

Preliminary budgets and savings for the Low-Income Single Family Program at the end of quarter four 2013 vary by PA. Some PAs have exceeded savings goals while others were under, as some PAs reallocated funding toward Low-Income Multi-Family based upon customer demand.

Due to less Federal Weatherization Assistance Program (“WAP”) funding availability, the community agencies relied heavily on PA funding in 2013, which resulted in much higher production levels and per unit costs for weatherization than planned.

The PAs continued to participate in the Best Practices Working Group and have finalized and implemented standardized, statewide client education materials provided at the time of the audit

by the various local community agencies.

In the fourth quarter, the PAs completed implementation of their strategic marketing plans targeting hard to reach/challenged communities across the state as part of the 2013 Low-Income Metric #1. Most PAs were able to achieve the Exemplary level by increasing program participation by at least 5% within these targeted areas.

Low Income Multi-Family

The Low-Income Multi-Family budgets and savings vary by PA; however, as of quarter four 2013, preliminary results indicate that the majority of PAs have exceeded savings goals while reaching or exceeding budgets. The demand in some PA territories for Multi-Family was higher in comparison to the funding that was available; therefore, some PAs reallocated Low-Income Single Family funding to Low-Income Multi-Family funding in order to serve more customers.

2013 was the last year for the Multi-Family Building Inventory Metric, and the PAs successfully inventoried a total of 20,315 accounts over the three year period. By utilizing this platform, the PAs have been able to identify the least-efficient buildings among all those eligible for funding, which aided in prioritizing energy efficiency projects to make the most of the budgets that were available.

COMMERCIAL AND INDUSTRIAL SECTOR

Throughout Q4, the Program Administrators continued to work diligently toward implementing the plan and achieving the 2013 savings goals while actively exploring strategies to expand offerings and enhance strategies in several areas anticipated to have the potential to yield savings. Activities in Q4 included the following:

Events and Outreach

During Q4, the PAs participated in a number of events throughout the state including the Worcester Business Journal Energy Summit, Massachusetts Association of School Committees Annual Conference, Architecture Boston Exposition, and the Massachusetts Green Career Conference.

On December 3, 2013, representatives from National Grid, NU, Columbia Gas of Massachusetts, Berkshire Gas and the Center for EcoTechnology met to discuss coordinating efforts among the gas PAs' small commercial program and Direct Install vendors.

On November 4, 2013, representatives from DEP, DOER, USDA, and the PAs met at the Amherst Wastewater Treatment Plant ("WWTP") office. Discussion topics included efficiency opportunities for Plants, funding and loan options, and oil to gas conversions.

DCAMM MOU

The DCAMM Accelerated Energy Program (“AEP”) began ramping up in Q4. For the first wave of primarily “simple fix” projects, 10 sites are substantially complete, and 33 sites have projects currently in progress. Fifteen vendors were pre-qualified and have been approved to work on DCAMM AEP projects. With regard to large retrofit, the first project at Northern Essex Community College was recently completed and received \$820,000 in PA incentives. Also, at Springfield Technical Community College (STCC), an \$11 million HVAC upgrade is almost complete – the project included installation of steam traps, new low pressure steam boilers in the central steam plant, fourteen new boilers in various buildings throughout the campus and new chilling equipment. Ten additional large projects are also underway in various stages ranging from procurement to construction.

Main Streets Delivery

NU has evaluated the impact of the Main Street Program. Based on the information that was gathered from the pilot, NU is looking at incorporating the Main Street Program in the Direct Install Program.

In Q4, National Grid planned the testing of the Main Streets Delivery Model. Internal structures and processes were developed and outreach methods prepared for a Q1 2014 mailing and implementation in the City of Medford. Lessons learned during planning are informing subsequent iterations of the Main Street Delivery Model that National Grid is planning for Q1 2014.

Initial results are in for the two Main Streets tests implemented in Q4. In CLC’s Provincetown test, 23% of the just over 200 small businesses marketed to went ahead with audits, and of those, 70% went on to accept proposals for energy efficiency equipment installation. Some businesses have lagged behind due to seasonal closings for the winter months. Overall project savings are expected to exceed 275 MWh. CLC is planning additional Main Streets testing in 2014.

Utility Owned LED Streetlights

NU is currently conducting field evaluations of the LED street lights fixtures utilized in this pilot, which consisted of two separate locations in the Town of Wayland that were retrofitted in 2013 with these new fixtures. The field test evaluation is a critical step in the process and allows for NSTAR to evaluate how these fixtures perform over a period of time to make sure that the technology performs to standard and provides the customer with the light quality expected for the test site.

Grocery Initiative

This marketing initiative was launched to target small to medium sized grocers and convenience stores. It focuses on bundling of common measures for this segment, including refrigeration, lighting and domestic hot water applications with prescriptive incentives and

bonuses for going deeper. In Q4, a list of eligible measures and an end-customer focused marketing brochure was completed in preparation for the roll-out.

Pro Forma

In Q4, the PAs made final adjustments to the Pro Forma and scheduled webinar training for PA staff in January 2014.

Combined Heat and Power (“CHP”)

National Grid and Northeast Utilities have been jointly discussing with the DOER strategies for addressing the small scale CHP market. The focus is to enhance uptake, and improve efficiency of small scale CHP projects statewide. Some ideas under consideration include load profiling for potential small CHP users to enable better customer targeting and creating a streamlined delivery process for deploying modular CHP units. In addition, the DOER has offered some available funds to support the PAs’ efforts with the details of the level and types of support are under discussion.

Upstream

In Q4 2013, the PAs continued to drive success in Upstream lighting. The PAs implemented strategic tactics to grow the results of the program, including targeted initiatives for LED parking lot lights for auto dealers as well as LED replacement lamps for state agencies and municipalities as well as colleges and universities. Additionally, the PAs continued to develop relationships with the manufacturers in the program and launched marketing campaigns to increase program awareness with distributors and end users. By year-end, the upstream lighting program had produced sales of 1.8 million lamps, including nearly 700,000 LEDs, through the 89 participating distributors.

Stakeholder Engagement

WMECO and Columbia Gas met with representatives from the DOER Green Communities Division, DEP, and the Westmass Area Development Corporation to develop plans for a collaborative energy assessment of a brownfields project with significant historical significance. Key to development of this project is a comprehensive plan to reduce both electric and natural gas use. WMECO and Columbia solicited assessment proposals by facilitating a site tour for engineering consultants, advised the team on selection of a consultant, and have offered funding for the analysis. A unique aspect of this project is the intention to develop a now vacant historic New England Mill into an incubator for the start-up of small manufacturing rather than the far more common transition of mills to residential use. DOER and DEP are also contributing resources to create jobs and economic growth.

IV. Massachusetts Technology Assessment Committee

The Statewide Massachusetts Technology Assessment Committee (“MTAC”) evaluates new

technologies for inclusion in the energy efficiency programs. MTAC provides a consistent statewide venue for evaluation of efficiency technologies. During the fourth quarter of 2013, the recently merged residential and C&I MTAC committee continued to improve the operating structure of MTAC and also evaluated new technologies for energy savings.

During Q4, the new MTAC leadership updated its internal charter to clarify the committee mission, structure, roles and responsibilities. Additionally, the committee made improvements to its internal knowledge sharing tools to streamline the documentation process of new technology evaluations. The committee also took efforts to expand the public facing side of MTAC by improving its visibility on the Mass Save website to encourage new technology applications for MTAC review. MTAC has also been active in reaching out to similar New England utility based new technology working groups to leverage regional knowledge and experience.

During Q4, the Committee received and evaluated three inquiries, including one Residential and two C&I. The residential technologies included a Z-wave Thermostat that was deemed appropriate for consideration by the PAs for inclusion in the Residential Products program. The C&I technologies included a Demand Limiting Controller that was found acceptable for future consideration and had a new Ductless Fume Hoods technology presentation that was in consideration for a custom application

V. Marketing, Education, Outreach Highlights

Statewide Marketing

The Mass Save Statewide Awareness campaign ran September 1- November 10, 2013. In Q4, digital banners with the Residential, Commercial & Industrial and multi-cultural messaging continued to run on 16 ad networks, regional and local websites. The ads were optimized with the best performing ads from Q3 running on all sites. The mobile (smartphones & tablets) continued into 4th quarter to reach the Residential and Commercial & Industrial targets; this ended on October 26. Paid search and Facebook ads also ran until November 10.

Seven weeks of radio ran from September 2 through November 3. Spots were aired on 26 top-rated stations across the state in English, Spanish and Portuguese languages. The messaging targeted the Residential and Commercial & Industrial audiences. Ad length for radio spots includes 60-second and 30-second spots to maximize audience exposure.

Print advertising in 11 business journals and chamber publications that cover the state reached the Commercial & Industrial target audience. Ads were placed in issues September 1 through mid-November.

Commuter rail/MBTA platform posters started again after a summer hiatus and were placed August 26 through October 20. Billboards continued to run around the state until October 6. Bus side ads were posted on August 26 and ran on 90 buses around the state, along with 36 interior cards.

KSV reported great success with the campaign, including:

- Campaign delivered over 197 million impressions from March 29 - November 10 at a \$2.53 blended CPM
- Close to 200,000 site visits were driven by clicks
- Flash banners delivered over 50,000 clicks
- Mobile banners delivered over 110,000 clicks
- Facebook accounted for 44% of the impressions at 3% of the spend, the CPM was very efficient at \$0.16 per thousand impressions

The Mass Save website also showed great year-over-year results. 2013 statistics from PixelMedia include:

- Over 800,000 visits to MassSave.com
- Over 500,000 events completed (video view, contacts, downloads)
- Events increased 45% from the previous year
- Downloads increased by 35%
- Over 3 million page views
- Over 500,000 unique visitors
- Organic search increased by 26%
- Visits from social media increased by 58%

Opinion Dynamics conducted the Post Campaign survey for both residential and small commercial customers December 2- 17. Preliminary results are expected in January.

Statewide Education

The Statewide Residential Education Working Group sponsored three teacher trainings in Springfield, Falmouth, and Plymouth in Q4. The trainings were very well attended. The group also attended and staffed an informational booth at the MA State STEM Summit on November 13, 2014 at Gillette Stadium. The Working Group is in full swing planning the 2014 Energy Education Teacher Trainings, participation at the national NSTA Conference hosted in Boston in April and the State Energy Education Youth Awards Program in June at the State House.

VI. Evaluation, Measurement, and Verification Highlights

During the fourth quarter of 2013, the evaluation team continued to work with ongoing studies in all three research areas - Residential, Commercial & Industrial, and Special and Cross Sector. To help share best practices and streamline the evaluation process, the Program Administrators and the EEAC Consultants continued monthly meetings of the Evaluation Management Committee (“EMC”) and coordination with the Residential and Commercial & Industrial Management Committees.

The following includes only studies that have reached at least the detailed scoping phase. There are other studies in the early scoping phase that aren't included.

Residential Research Area

Work on the following studies continued, results will be included with a future regulatory filing.

The **Massachusetts Residential New Construction Net Savings Study** is focused on assessing the impacts the RNC program has had on the marketplace over the past seven years, and includes builder survey, Delphi panel and energy modeling components. The evaluation contractor submitted a draft of the final report in the fourth quarter of 2013 and was tasked with additional work related to assessing bias and extrapolation of the modeling results. The final report will be completed in the first quarter of 2014.

Residential Lighting - Regional Operating Hours Study. Completed in collaboration with Connecticut, Rhode Island, and NYSERDA, this study has provided a robust look into hours of use of both efficient and non-efficient light bulbs by room and socket type. The study will provide the data necessary to update hours of use assumptions, as well as demand load shapes. The final report will be completed in the first quarter of 2014.

Low Income Programmable Thermostat and Lighting Operating Hours Study. This study is a Massachusetts and LI-specific version of the Regional Operating Hours Study. The evaluation contractor has removed all metering equipment and submitted a memo with preliminary results in mid-2013. However, the PAs and evaluation team decided to delay releasing the report in order to methodologically align the study with the concurrent Regional Lighting Logger study (above). The final report will be completed in the first quarter of 2014.

Lighting Market Assessment. The objective of this effort is to provide ongoing monitoring of the evolving Massachusetts lighting market. This study will use a multi-task approach that includes consumer surveys, on-site saturation visits in Massachusetts, on-site saturation visits in two comparison areas, shelf-stocking surveys, supplier interviews and a Market adoption model update. Draft results are expected in the third quarter of 2014.

Lighting Saturation Stagnation Assessment. The objective of this study is to explore reasons for the recent slow growth in CFL saturation, as well as to determine ways to accelerate LED adoption. Research is underway and draft results are expected in the third quarter of 2014.

Lighting Market Lift Assessment. The objective of this study is to assess the planning and implementation of the Market Lift effort and develop a specific net-to-gross (NTG) estimate for that effort. Research began in the fourth quarter of 2013 and draft results are expected in the third quarter of 2014.

HEHE Impact Evaluation. The objective of this study is to determine gross savings for the HEHE programs and provide refined estimates of hours of use and coincidence factor for a variety of space heating measures. Metering equipment has been installed in more than 100

homes. The meters will remain in place throughout the 2014 heating season. Draft results are expected in the third quarter of 2014.

Ductless Mini-Split Heat Pump Assessment. The objective of this study is to determine why participants install ductless mini-split heat pumps (DMSHPs) through the COOL SMART program. Research is underway and draft results are expected in the second quarter of 2014.

HES Program Delivery Assessment. The objective of this study is to determine accurate conversion rates (installed measures: recommended measures) and other key performance metrics for HES overall, as well as for Lead Vendors (LVs) and Home Performance Contractors (HPCs) specifically. The study will also explore the effectiveness of linkages between HES and other PA programs (most notably HEHE and CoolSmart) and attempt to identify opportunities for greater and deeper savings for each program, as well as the overall residential portfolio. Research is underway and draft results are expected in the first quarter of 2015.

HEAT Loan Assessment. The objective of this study is to understand the extent to which the Mass Save HEAT Loan influences customer decision-making relative to the other factors that influence participation (PA incentives, tax credits, pre-program intentions, etc.), and to explore whether the availability of the HEAT Loan has an impact on contractor pricing. Research is underway and draft results are expected in the second quarter of 2015.

Multifamily Process Evaluation. The objective of this study is to assess and monitor the current state of the evolution of the Multifamily Program as a stand-alone or integrated offering with the commercial side and provide an ongoing examination of barriers, program operations, and customer experience. Focus groups will be completed in the first quarter of 2014. Draft results are expected in the third quarter of 2014.

Residential Customer Profile Study. The objective of this study is to compile PA customer and participation data on residential customers to provide insights into levels of participation, energy consumption, and energy savings relative to consumption. The study will inform several of the other ongoing evaluation efforts. A half-day meeting has been scheduled in the first quarter of 2014 to discuss possible study outputs in greater detail. Draft results are expected in the third quarter of 2014.

Lighting Multi-Stage Net-to-Gross. The objective of this study is to estimate net-to-gross (NTG) ratios for key product types for which incentives were offered in the ENERGY STAR® Lighting initiative and to assess the associated strategic implications. Scoping focused on supplier interviews, point-of-sale data analysis, and self-reported purchase analysis is nearly final. That work is expected to begin in the first quarter of 2014.

Multifamily High-Rise New Construction Baseline Assessment. The objective of this study is to develop a baseline for construction building practices in four-story and higher multifamily buildings. The PAs, EEAC and evaluation contractor are participating in meetings to discuss the study's scope and the best methodologies for moving forward.

Low-Income Multifamily Impact Assessment. The objective of this study is to provide an inventory of the methods currently used to estimate LIMF savings, explore opportunities for standardization where appropriate, assess whether all data required for evaluation are available, and develop PA-specific realization rates for appropriate measures. Scoping of the research is underway and work is expected to begin in the first quarter of 2014.

Trade Ally Panels. The objective of this effort is to explore whether data quality, response rates, and data collection costs can be improved by a more systematic data-collection approach across programs, markets, and evaluations. This study is in the scoping phase.

Residential Market Effects Study. The overall objective of this study is to capture the net effects over time of Massachusetts' programs to promote a technology to be determined by the PAs. The development of this market effects study and selection of the targeted technology will be coordinated with the Cross-Cutting Research Area's Market Effects Planning work. Market Effects meetings have been scheduled for the first quarter of 2014.

Appliance Program Evaluation. The goal of this study is to explore changes to the way the Appliance initiative is currently delivered, including new marketing strategies or retail partnerships, updated incentives, and other cost-effective options. This study is in the scoping phase.

Incremental Cost Study. The goal of this study is to provide updated incremental cost data for use in cost-effectiveness screening and setting of customer incentive levels. This study is in the scoping phase.

Advanced Power Strips Impact Evaluation. The goal of this study is to identify alternative program designs that will generate higher participation and savings per participant. This study is in the scoping phase.

Commercial & Industrial Research Area

Work on the following studies continued, results will be included with a future regulatory filing.

Impact Evaluation of Upstream Lighting Program. This study will provide several updated savings inputs based on two waves of on-site metering of a robust sample of projects installed in 2011 and 2012. Metering is complete and a draft report was received in the fourth quarter of 2013. The report will be finalized in the first quarter of 2014.

Mid-Sized Customer Needs Assessment. This study will provide an assessment of whether or not the needs of mid-sized customers are being accurately and efficiently met by current program implementation processes. Analysis includes in-depth interviews with program administrators, customer telephone surveys and data mining of PA customer databases. The report will be finalized in the first quarter of 2014. In addition, the PAs included an update on draft results with the 2012 Energy Efficiency Annual Reports.

Impact Evaluation of CHP Installations. This study will provide updated realization rates based on in-field metering of projects completed in 2011 and 2012. A draft report was received in the third quarter of 2013, and the final report was received in the fourth quarter of 2013.

Existing Building Market Characterization. This study will provide information on equipment market share and saturation, baseline information, market conditions, program penetration, savings potential and market barriers by conducting telephone surveys with customers and on-site visits. The general population survey continued to be fielded through the fourth quarter of 2013. Analysis and draft results of the survey effort are expected in the first quarter of 2014.

Lighting Controls Scoping Study. The purpose of the Lighting Control study is to inform the PAs of the current state of the Lighting Control market and make recommendations as to whether an impact study should be conducted and if so, what type. The study consists of secondary research and interviews with PA staff, Project Expeditors, and lighting distributors. All secondary research is complete, interviews are being wrapped up, and a draft report is expected in the first quarter of 2014.

Whole System Approach Assessment. This study will provide information on best practices and lessons learned from three programs in other regions which focus on taking a whole system approach. Research began in the first quarter of 2013 and interim results were received in the third quarter of 2013. The PAs and EEAC consultants will determine whether additional research is warranted in the first quarter of 2014.

New Construction Data Mining – Codes & Standards Research. This study will leverage onsite data collected in support of the 2011 Code Compliance Baseline Study to learn about the baseline for potential code compliance program measures. Scoping is nearly final and work is expected to begin in the first quarter of 2014.

LED Market Effects Study (Residential & Commercial). The first round of this study will examine baseline conditions of the market for LEDs in MA. Research began in the third quarter of 2013 and draft results are expected in the third quarter of 2014.

Impact Evaluation of Custom HVAC Measures. This study will provide updated realization rates based on in-field metering of a robust sample of projects completed in 2012. Research began in the second quarter of 2013.

Impact Evaluation of Prescriptive Non-Lighting Measures. This study will provide updated savings estimates for a pre-selected group of non-lighting measures. The measures will be determined during the scoping process which will include an assessment of the percent of program savings achieved by each measure as well as the precision and confidence associated with the current measure savings estimates. Scoping is underway and work is expected to begin in the first quarter of 2014.

C&I Customer Profile. This is the second study in an annual series and will use existing program tracking and customer billing data to create a profile of C&I customers in the state based on market and participant characteristics such as size, business type and program

participation rates. Data analysis is currently underway and draft results are expected in the first quarter of 2014.

Learning From Successful Projects. The intent of this study is to assess the characteristics of successful projects and recommend best practices that could reasonably be duplicated elsewhere. Detailed work planning is currently underway and work is expected to begin in the first quarter of 2014.

PA Differences Assessment. This intent of this study is to analyze and document the different factors that affect PA performance. These factors may include the percent of customers participating, the depth at which customers participate, the cost to deliver savings and the demographics and key characteristics of each PA's territory. Detailed work planning is underway and work is expected to begin in the first quarter of 2014.

Commercial Real Estate Market Assessment. The intent of this study is to provide a comprehensive understanding of the complex relationship between building owners, property managers and tenants and identify specific program offerings and points in the leasing process that offer opportunities to capture energy savings. Scoping of the study is currently on hold and the PAs and EEAC consultants anticipate coordinating any future work with the Commercial Real Estate Working Group's efforts.

Roof-Top Unit Controllers Market Effects Study. The first round of this study will examine baseline conditions of the market for Roof-Top Unit controllers in MA. Scoping of the research is underway.

Supply Side Population Assessment. The intent of this study is to characterize the population of market actors that serve the MA PAs' C&I customers and potentially recruit market actors for participation in future EM&V efforts. Scoping of the research is underway and work is expected to begin in the first quarter of 2014.

Process Evaluation of the Direct Install Program. This study will focus on research objectives identified by PA implementation staff and other key stakeholders including EEAC consultants and could include options for deeper savings, targeting of micro-businesses, establishing savings estimates for behavioral measures, etc. Scoping of the research is underway and work is expected to begin in the first quarter of 2014.

Boiler Market Assessment. This study will provide an in-depth understanding of the current baseline in the C&I boiler market, including historical trends regarding equipment efficiencies and size. Research is underway and draft results are expected in the first quarter of 2014.

Impact Evaluation of Prescriptive Gas Measures. This study will provide updated savings estimates for a pre-selected group of gas measures. The measures will be determined during the scoping process which will include an assessment of the percent of program savings achieved by each measure as well as the precision and confidence associated with the current measure savings estimates. Scoping is underway and work began in the fourth quarter of 2013.

Special and Cross-Sector Research Area

The following studies are underway with completion date beyond the 2012 Energy Efficiency Annual Report:

Efficient Neighborhoods+: The implementation of the Efficient Neighborhoods+ initiative is complete, with one exception (for CLC, the implementation of the initiative is scheduled to run until March, 2014). PAs worked closely with the evaluation team to develop and finalize the evaluation plan and scope for the initiative. At this time, the evaluation is underway, PAs are working on assembling the data requested by the evaluation team, and are reviewing the survey instruments designed by the evaluation team to support the evaluation. Next steps include the evaluation team fielding participant and non-participant surveys, conducting impact and process evaluation (as specified in the evaluation scope), and preparing a draft evaluation report.

Behavioral Persistence Study: This evaluation will examine the persistence of behavioral savings associated with customers who began receiving reduced treatment (i.e., fewer home energy reports (HERs)). In particular, beginning in January 2013, some customers continued to receive monthly reports while others, randomly selected, began receiving reports only twice per year. The “reduced-treatment” customers in the electric cohort received reports in April in September of 2013, and, and will receive reports in the same months of 2014. The “reduced-treatment” customers in the gas cohort received reports in September and November of 2013, and will receive reports in the same months of 2014. The scope of work for this evaluation was finalized in February 2014 and the study will commence immediately. The focus of this analysis is the difference in consumption between reduced-treatment customers compared with both the control group and the monthly-report group during the 2012-2013 time period. The analysis will be conducted separately for the electric and gas cohorts. The study is expected to run through May 2014.

2013 Massachusetts Statewide Marketing Campaign Post-Campaign Results: This study provides information on the results of the 2013 Massachusetts statewide marketing campaign. The goal of this effort is to address the language contained in the Gas and Electric Term Sheets, and assess awareness of Mass Save immediately after the new 2013 marketing campaign concludes. To support the December 2013 post-campaign assessment of Mass Save, the evaluation team reviewed all of the statewide marketing materials used in 2013, as well as each of the PA websites. The team also fielded telephone surveys with a sample of residential and commercial and industrial (C&I) customers. These surveys were fielded immediately after the close of the 2013 campaign in December 2013. In total, the Team spoke with 500 residential customers and 300 C&I customers from around the state. A draft report was issued in January 2014 and the evaluation team expects to provide a final report in February 2014.

COOL SMART / GasNetworks Brand Assessment: This study will assess the effectiveness of the COOL SMART and GasNetworks brands among contractors. The focus is on addressing the language outlined in the Gas and Electric Term Sheets regarding the effectiveness of all joint statewide branding efforts. In particular, the research objectives for this study include: provide documentation of the brand strategy and branding efforts undertaken to date for the COOL SMART and GasNetworks brands; explore brand awareness, knowledge and associations; assess

branding effectiveness for each brand; and examine the relationship between awareness and attitudes towards Mass Save, and GasNetworks and COOL SMART. Key research activities include in-depth interviews with marketing staff, a literature review, and a contractor telephone survey. At this time, the evaluation team has completed the in-depth interviews, a draft of the contractor survey, and a preliminary assessment of available literature.

The following specific high priority studies are being scoped out and will be included with a future regulatory filing.

Codes & Standards Coordination/Planning: The goal of this effort is to provide overall coordination with implementation to ensure that as implementation plans develop in this area, they are designed in such a way that the necessary data is being collected in order to evaluate the impact of such efforts along with appropriate attribution to the PAs.

Codes & Standards Initiative Evaluation: This evaluation will determine the code compliance rates for single-family homes built at the end of the 2006 International Energy Conservation Code (IECC) cycle and at the beginning of the 2009 IECC code cycle. The evaluation will also include process and impact evaluation activities to determine how well the program is operating, identify opportunities for improvements, and determine the impact the program is having on code compliance in the residential and nonresidential areas

Market Effects: The goal of this study is to develop a framework for the evaluation of market effects for programs targeting reductions in residential and commercial energy use and demand. The study will help the PAs, the EEAC, and residential and commercial EM&V contractor teams to 1) understand and agree to working definitions of what market effects are, their relation to other concepts like spillover and market transformation, and what conditions could lead to them, 2) identify and prioritize specific markets that stand to be sufficiently influenced by existing or planned programs that the resulting effects could affect program value and planning, 3) develop suggested methodologically consistent approaches for assessing market effects within these markets; and 4) Identify how program administrators can improve the evaluability of market effects for the programs or parts of programs targeting these markets.

Net-to-Gross – Top-Down NTG Methods: This is a two phased study to provide guidance to determine the role of top-down modeling of net energy impacts. Phase I will take place during the 2014 evaluation period. Phase II will follow the Phase I research. The Phase I study will review existing Top-Down modeling techniques and recommend specific methods to be used in MA, obtain the necessary data for employing one or more agreed approaches, implement multiple agreed-upon approaches in parallel to provide an initial demonstration of the contribution that Top-Down modeling may make to on-going evaluation efforts, and make recommendations for data that should be tracked to facilitate better Top-Down modeling in the future.

Net-to-Gross – Electric C&I NTG: The goal of this study is to update the incremental short-term program effects of the C&I sector electric programs. The study will also examine how updated NTG factors vary in the participant population for Green Communities, and how NTG factors have changed over time in Massachusetts.

Non-Energy Impacts – Low Income Health NEIs: The proposed research is aimed at identifying and quantifying NEIs of energy efficiency measures on the health and well-being of low-income energy efficiency program participants, estimating their costs, and projecting those costs to the year 2050.

Non-Energy Impacts – Using C&I NEIs for Project Recruitment: The overall goal of this research is to provide sales and marketing personnel with specific talking points for prospects by industry. This study will present analysis of the 2012 NEI data drilling down into the specific cost reductions and revenue increases resulting from energy efficiency measures reported by firms in different industries. This analysis will first identify industries with statistically significant NEI estimates. It will then explore the qualitative and quantitative survey results for commonly reported sources of cost and revenue changes resulting from energy efficient measures.

Non-Energy Impacts – Quantifying C&I New Construction NEIs: The goal of this study is to quantify participant non-energy impacts (NEIs) associated with commercial and industrial new construction projects.

Retro Electric DRIPE: The PAs will research whether estimates of electric DRIPE developed as a part of recent Avoided Cost studies were accurate.

Please also see the EM&V Gantt chart and a related evaluation table at Attachment B.

VII. Regulatory Updates

The PAs worked on discovery in their 2011 and 2012 Energy Efficiency Annual Reports dockets in quarter four. This process is ongoing, with hearings scheduled for March 2014, if necessary.

On November 21, 2013, the gas Program Administrators received Department orders approving their 2010 Annual reports, including recovery of costs, nearly all of the claimed performance incentive (with the exception for some low income metrics where the Department determined that not enough clear and district supporting information was provided), and lost based revenues (“LBR”) for those PAs collecting LBR in 2010.

In the fourth quarter, the Department continued the streamlining working group in D.P.U. 11-120. On October 30, 2013, the Department convened a Technical Session to discuss a method to calculate carbon compliance costs. The Department announced that any carbon compliance value will have to go through an adjudicatory process that will provide the Department with record evidence from which it can make a decision. The Department indicated that proponents of the value will have to make a case, including expert testimony, and must address the jurisdiction of the Department to make a ruling. On November 14, 2013, Conservation Law Foundation hosted a stakeholder meeting, which the PAs attended, to explore whether any consensus positions might be possible. The Department issued a hearing officer memorandum on December 19, 2013 related to Environmental Compliance Costs, requiring stakeholders to notify the Department on or before January 17, 2014, of their intent to file a petition that meets

statutory and regulatory requirements. The Department noted that, in order to ensure that the case can proceed in a timely manner, any petition, including prefiled testimony and exhibits, should be filed no later than February 24, 2014.

The Department convened a subcommittee to discuss Three-Year Term and Plan-Year Reports, which met on November 8, 2013 and December 19, 2013 at the Department. The Department requested that the PAs submit a revised Plan-Year Report Straw by December 11, 2013. The PAs' Plan-Year Straw is meant to be a simplified, data-focused, and statewide document that also includes individual PA data to allow the Department to evaluate an individual PA's performance during the three-year term. The PAs sought to keep the spirit of a three-year filing when proposing this straw.

VIII. Special Focus Topics

A. MBA Financing

The Program Administrators continued to offer financial products in conjunction with the Massachusetts Bankers Association and Credit Unions.

In 2013 Massachusetts customers and participating lenders closed on nearly \$825,000 in third-party lending to businesses. Also, the Massachusetts PAs have improved the marketing collateral and the Mass Save Financing for Business web page in order to enhance customers' understanding of financing options for their energy efficiency projects. The financing program for business was expanded in 2013 to increase the maximum loan amount to \$500,000, to provide financing for gas heating and kitchen equipment, and to create a mechanism to enable small business customers to more easily participate in this program.

The Program Administrators continue their efforts to understand the nature of barriers related to accessing capital for certain customer segments, and to explore financing solutions to address them, particularly for C&I customers. PAs have continued quarterly telephone conferences with lenders to address any issues with lending and explore ways to improve the program.

B. Residential Barriers Working Group Update

The PAs presented on the work of the Residential Barriers Working Group at the October EEAC meeting. The Residential Barriers Working Group later met on October 30, 2013. Representatives from Renew Boston and LEAN discussed their experiences with tenant/landlord programs. The meeting included a presentation on landlord/tenant barriers by Brad Swing and Amy Vavak based upon their experience with Renew Boston. The group identified next steps, including reviewing the evaluation of the Efficient Neighborhoods+ initiative upon its completion. The Residential Barriers Working Group expects to reconvene in the first quarter of 2014.

IX. Performance Metrics Update

Please see the section below for preliminary best available information on achievement of performance metrics for 2013. Final performance metrics achievement will be detailed in each Program Administrator's Plan-Year Report filed with the Department.

A. Residential

2013 Residential Metrics progress is as follows:

1. Whole House/Home Energy Services: Deeper Savings {Electric & Gas} – Statewide

Threshold: *Achieve an increase in the overall close rate of Full Assessments* in Home Energy Services (HES) a minimum of 6%**or greater, as compared with 2012. Each PA to submit documentation showing performance relative to targets.*

Design: *Achieve an increase in the overall close rate of Full Assessments * in Home Energy Services (HES) a minimum of 10%** or greater, as compared with 2012. Each PA to submit documentation showing performance relative to targets.*

Exemplary: *Achieve an increase in the overall close rate of Full Assessments * in Home Energy Services (HES) a minimum of 12.5%** or greater, as compared with 2012. Each PA to submit documentation showing performance relative to targets.*

* **Full Assessment** is defined as comprehensive HES audit, as distinct from a 'Special Home Visit (SHV)' which is a home visit targeted to a specific purpose (e.g. direct-install measures; verification of information prior to HVAC installation).

* **Major Measure** is defined as air sealing, envelope insulation, or both. Measures must meet applicable program eligibility requirements.

**Close Rate calculation will be based on comparing the full assessment-to-major measure (as defined above) close rate in 2013 to 2012 baseline.

Increase in close rate (%) = (2013 close rate / 2012 close rate) – 1

UPDATE:

The table below describes the utility PAs' expected achievement for the Mass Save/Weatherization: Deeper Savings metric in 2013. The PAs are still processing final year-end numbers and will provide final close rates in the Plan-Year Reports.

	Full HEAs YTD June	Conversion Rate YTD June	Expected Achievement Dec. 2013	Threshold Goal 6%	Design Goal 10%	Exemplary Goal 12.5%
NSTAR Electric	7,326	32.49%	Threshold	36.81%	38.20%	39.07%
NSTAR Gas	4,679	27.42%	Exemplary	28.00%	29.06%	29.72%
National Grid Electric	12,709	31.71%	Design	31.72%	32.91%	33.66%
National Grid Gas	12,718	27.15%	Below Threshold	33.11%	34.36%	35.15%
WMECO	1,180	34.32%	Below Threshold	42.27%	43.87%	44.87%
Berkshire Gas	441	34.69%	Below Threshold	44.44%	46.12%	47.16%
Columbia Gas of MA	2,434	29.09%	Below Threshold	35.53%	36.87%	37.71%
Liberty Utilities (New England Gas)	222	18.92%	Below Threshold	28.20%	29.26%	29.93%
Unitil Electric	191	44.50%	Threshold	60.42%	62.70%	64.12%
Unitil Gas	44	36.36%	Threshold	60.42%	62.70%	64.12%

2. Whole House/Home Energy Services: Early Boiler Replacement* {Electric & Gas} – Statewide

Threshold: PAs to promote deeper savings for single family homes and encourage landlords to invest in major energy efficiency upgrades in multi-unit dwellings (e.g. 3 deckers) by increasing early boiler replacements by 6% over the 2013 planned goal. Each PA to submit documentation showing performance relative to targets.

Design: PAs to promote deeper savings for single family homes and encourage landlords to invest in major energy efficiency upgrades in multi-unit dwellings (e.g. deckers) by increasing early boiler replacements by 8% over the 2013 planned goal. Each PA to submit documentation of performance relative to targets.

Exemplary: PAs to promote deeper savings for single family homes and encourage landlords to invest in major energy efficiency upgrades in multi-unit dwellings (e.g. 3 deckers) by increasing early boiler replacements by 10% over the 2013 planned goal. Each PA to submit documentation showing performance relative to targets.

*An Early Boiler Replacement is defined as replacement of an existing, functional forced hot water or steam boiler that is a minimum of 30 years old and is fueled by natural gas, oil or propane. Eligibility is based on:

- New equipment meeting specific high efficiency AFUE (Annual Fuel Usage Efficiency) rating
- Customer receiving a Home Energy Assessment as a method to identify additional energy savings opportunities and to verify existing boiler is in fact functional.

UPDATE:

The table below describes the utility PAs’ preliminary results for the 2013 Early Boiler Replacement metric. The column “EBRs Offered” represents the number of customers identified as eligible for this initiative. The column “EBRs Completed” represents the number of rebates billed through June 30, 2013; actual EBR net results did not increase significantly after that time since customers had to submit their applications and complete the installation by October 1, 2013. Final year-end results will be available for the Plan-Year Report.

	EBRs Offered	EBRs Completed June 2013	Threshold Goal 6%	Design Goal 8%	Exemplary Goal 10%
NSTAR Electric	409	16	887	904	921
NSTAR Gas	286	5	606	618	629
National Grid Electric	530	33	636	648	660
National Grid Gas	620	25	424	432	440
WMECO	72	4	53	54	55
Berkshire Gas	50	1	31	32	33
Columbia Gas of MA	212	6	60	62	63
Liberty Utilities (New England Gas)	36	3	42	43	44
Unitil Electric	13	3	7	8	9
Unitil Gas	3	0	7	8	9

Expected achievement levels for Metric #2 (Early Boiler Replacement) at the end of 2013 are as follows:

	Achievement Level
NSTAR Electric	Below Threshold
NSTAR Gas	Exemplary
National Grid Electric	Exemplary
National Grid Gas	Exemplary
WMECO	Exemplary
Berkshire Gas	Exemplary
Columbia Gas of MA	Exemplary
Liberty Utilities (New England Gas)	Exemplary
Unitil Electric	Threshold
Unitil Gas	Threshold

B. Low-Income

The 2013 Low Income metrics results to date are as follows:

1. Strategic Targeting {Electric & Gas} – Statewide

Threshold: *In coordination with LEAN, Program Administrators to develop a marketing strategy/plan to increase program participation through targeting Gateway cities and/or identified challenged communities and/or hard-to-reach communities across the State with the intent to educate consumers within these communities about available low-income program offerings they can benefit from. The marketing strategy plan will include key elements that describe the overall strategies and provide an implementation overview. Key elements include, at minimum: 1) detailed sections on communication/outreach strategies, 2) implementation action items 3) deployment outline and 4) monitoring outline. Targeting may include both single and multi-family housing types but is not meant to reduce funding to communities now served. Each PA will target at least one (1) city or hard-to-reach community within their service territory. Gas and Electric PAs will cooperate as appropriate, on efforts in shared towns. A shared PA effort will be counted as one (1) community for both PAs. Program Administrators to submit marketing plan to EEAC Consultants and DOER by May 1, 2013.*

Design: *In coordination with LEAN, each Program Administrator to implement its marketing strategy plan within its respective territory no later than August 1, 2013. Program Administrators will submit notification to the EEAC Consultants that the plans are underway along with a list of the communities in which they are being deployed. The PAs agree to track participation uptake, including kWh and/or therm savings, at the on-set of deployment.*

Exemplary: *Each PA to increase program participation in designated community(s) by 5%* in Q3/Q4 compared to equivalent 2012 baseline**. By February 1, 2014 PAs to present a report to the EEAC Consultants and DOER that includes individual Program Administrator's participation rates, a summary document of Program Administrator's production, lessons learned, and recommendations for future marketing strategies. Each PA to submit a memo to EEAC consultants and DOER by February 15, 2014 detailing their Clear and Distinct Role in accomplishing this activity.*

UPDATE:

Target Markets

The chart below details each PA's target community in which it implemented marketing strategies in order to increase program participation by at least 5%. Nine PAs have met the exemplary status, and one has met design.

Program Administrator	Target Community(s)	<u>BASELINE</u> Q3-Q4 2012 Participation	<u>GOAL</u> 5% Increase in 2012 Participation	<u>ACTUAL</u> Q3-Q4 2013 Participation
Berkshire Gas	Turners Falls	1	2	7
Columbia Gas	Forest Park neighborhood in Springfield, MA	2	3	20
Liberty Utilities	Fall River	38	40	23
National Grid Electric	Haverhill	15	16	103
National Grid Gas	Haverhill	6	7	85
NSTAR Electric	Somerville	44	47	76
NSTAR Gas	Somerville	8	9	9
Unitil Electric	Fitchburg	14	15	24
Unitil Gas	Fitchburg	6	7	9
WMECo	Forest Park neighborhood in Springfield, MA	1	2	22

* The participation indicated above represents the total number of customers who participated in the Low Income Energy Efficiency Program.

In satisfaction of the exemplary level, the PAs presented a report to the EEAC Consultants and DOER by February 1, 2014 that included the individual Program Administrator's participation rates and a summary of each Program Administrator's production, lessons learned, and recommendations for future marketing strategies. The PAs detailed their Clear and Distinct Role in accomplishing this activity.

Implementation of Marketing Strategy/Plans (Design)

In coordination with LEAN, each PA has implemented a marketing strategy/plan in 2013 to increase program participation by targeting the communities listed in the above chart. Each Program Administrator implemented its marketing strategy plan within its respective territory by August 1, 2013, and Program Administrators submitted notification to the EEAC Consultants that the plans were underway, along with the list of the communities in which they are being deployed. Information on each PA's marketing strategy and plans as available for the August 1 submission is as follows:

Berkshire Gas Marketing Plan

Berkshire Gas along with Community Action of the Franklin, Hampshire, and North Quabbin Regions, Inc. ("CA") has developed a marketing and outreach plan to increase program participation in the town of Turners falls by 5%. CA has generated a list of 165 LIHEAP eligible households in Turners falls and has prepared a mailing to reach out to these households. Natural Gas heated multi-family buildings have also been targeted for service in 2013.

- Berkshire Gas and CA met in May to determine appropriate steps to increase client participation. A direct mail campaign to all 165 households was designed.

- CA met with the Franklin County Regional Housing and Redevelopment Program in Turners Falls in June and identified 4 low-income multi-family buildings totaling 105 units and is securing final permission to perform the energy assessment for these properties.
- Community Action designed a flyer to go to the 165 LIHEAP eligible households in June. This mailing went out on August 1 with an expected return rate of approximately 15%.
- CA was part of a Community Energy Savings for Seniors presentation on September 11, 2013 at the Greenfield Savings Bank in Turners Falls to present options for low-income energy efficiency.

Berkshire Gas and CA have monitored the process of outreach and tally the results of the targeted mailing. The energy assessment for the 4 low-income multi-family buildings was planned for August 2013, with all measure identification and contractor coordination in place by October.

Columbia Gas & Western Massachusetts Electric Company Marketing Plan

Western Massachusetts Electric Company (WMECo) and Columbia Gas of Massachusetts (CMA) along with their partners, Springfield Partners for Community Action (Springfield Partners) and the Vietnamese American Civic Association (“VACA”) have developed a marketing plan to increase program participation by at least 5% within the hard-to-reach neighborhood of Forest Park in Springfield, MA. WMECo and CMA began implementation of the marketing plan in April 2013. WMECo, CMA and Springfield Partners have implemented the following marketing activities.

- WMECo and CMA met on March 7th, 2013 and April 4th, 2013 with Springfield Partners and VACA to become familiar with the community’s needs, discuss potential barriers, develop outreach strategies and identify opportunities for this initiative.
- VACA held its 10th Annual Health Fair on Friday, April 26, 2013 which was attended by Springfield Partners, WMECo and CMA as a means to become more familiar to the community and increase visibility.
- Springfield Partners attended the Fall of Saigon Memorial Service on Saturday, April 27th, 2013 to market the initiative.
- Two bi-lingual and bi-cultural translators are working to help with the potential language barrier and trust issues. The translators work from the offices of Springfield Partners and the VACA community center. The translators have been trained to discuss the benefits of the weatherization programs, answer customer questions and schedule weatherization appointments. They call members of VACA to personally invite them to the “Sunny Wednesday” events. The translators are also present at the initial home audit and during the weatherization work. The presence of a translator increases the comfort of the customer as well as reduces the language and trust barriers.
- Springfield Partners has also implemented “Sunny Wednesdays” beginning May 29th, 2013. Over 60 people attended this event. On “Sunny Wednesdays”, Springfield

Partners sets up an information table at the VACA community center to promote the initiative and answer questions about energy efficiency and utility discount rates. Utility weatherization literature and a Vietnamese/English brochure are distributed. “Sunny Wednesdays” will be held throughout the summer to provide a continual presence in the community.

- Springfield Partners continues to reach out to all community resources. To date, they have attended 5 community events including a Saturday morning men’s meeting and breakfast at VACA. At the breakfast, they met with the lay person in charge of the local Buddhist temple on Berkshire Ave, VACA board members and other influential community leaders.
- Springfield Partners additional outreach efforts include Springfield Partners auditors handing out CMA and WMECo weatherization and educational packets to neighbors of weatherized homes. VACA hands out a “Sunny Wednesdays” flyer to their after school and senior center participants and has weatherization applications available at their center.
- Springfield Partners has weatherized 2 gas heated demonstration homes that were used to familiarize the community with weatherization. These homes are being used as an opportunity for the landlord to discuss the process of weatherizing a home in addition to the benefits of the weatherization program to the Vietnamese community.
- A total of two gas heated homes (2-two family homes) have been weatherized. The estimated energy savings are 3,081 kWh and 1,052 therms per year.
- One single family oil heated home has been weatherized. The estimated energy savings is 377 kWh per year and 204 gallons of oil per year. Three additional oil heated homes are scheduled for weatherization.

National Grid Electric & Gas Marketing Plan

National Grid developed a marketing plan to increase program participation by at least 5% of the income eligible population in the City of Haverhill. National Grid began implementation of this marketing plan in May 2013. To date, the Company has completed the following action items:

- Finalized mailing list of Haverhill single family customers on the discount rate to receive correspondence. The total number of customers targeted is 3,290. Customers who were previously served were excluded from the campaign.
- Created and finalized direct mail collateral and email blast text, in collaboration with CAP agencies.
- Printed the direct mail piece and mailed to the defined target audience on June 28, 2013. The call to action was to contact the local community action program agency, Community Action Inc. (CAI) via phone, business reply card or email.
- Also an email blast was sent to the targeted list on July 1, 2013.

As of July 2013, the CAP agencies had received 150 inquiries regarding the direct mail/email blast, a 4% response rate. In addition, there had been 29 energy assessments completed as a

result of this campaign. Eleven assessments were scheduled, and 7 heating system projects were out to bid for replacement.

National Grid will continue to implement the remainder of the marketing plan, and monitor and track participation uptake, including kWh and/or therm savings, as outlined in the initial documentation submitted on May 1, 2013.

Liberty Utilities' (formerly New England Gas Company) Marketing Plan

Liberty Utilities' marketing plan focused on the hard-to-reach community in Fall River. The plan was implemented starting in the first quarter of 2013 and progressed in the second quarter as scheduled. The following was completed through the end of the second quarter:

- A Kick-Off Event was held on Saturday, March 2nd, after a postponement due to weather. The event included participation by the Mayor's Office, local media, local contractors for energy efficiency, and a number of the target neighborhood associations taking part in the contest. The promotion of the kick-off was attained by advertising in local papers and on local radio stations. These spots were run in both English and Portuguese in a further attempt to reach the hard-to-reach population of the unique Fall River territory. The event was also promoted through distribution of a flier to students at all Fall River public schools. The mid-Spring promotion of the initiative was completed using several channels. A multi-lingual flier (English, Portuguese, and Spanish) was distributed to all Fall River public school students, to the local CAP agency (Citizens for Citizens), and Fall River City Hall in April, reminding people that the initiative was in full swing. The same multi-lingual information was also run in the local paper on three separate occasions throughout the second quarter.
- The results of the contest were originally anticipated to be announced at the end of the second quarter. However, the interest was such that the deadline to apply for the contest was extended and, therefore, the results of the contest were available in the third quarter of 2013.

Liberty Utilities will review the results of the contest and continue to implement the marketing plan as outlined in the documentation submitted on May 1, 2013. The Company will use lessons learned to further enhance its marketing strategies to hard-to-reach customers in its entire service territory.

NSTAR Electric & Gas Marketing Plan

NSTAR has developed a marketing plan to increase program participation by at least 5% within the hard-to-reach community of Somerville. NSTAR began implementation of our marketing plan in May 2013. To date, NSTAR has completed the following implementation action items:

- NSTAR finalized the mailing list of Somerville single family customers on the discount rate to be included within the marketing campaign and receive all direct mail collateral. The total amount of NSTAR Electric and Gas customers that are on the discount rate targeted within this campaign is 1,296 customers. Customers that were previously served via the Energy Efficiency program were excluded from this campaign in addition to addresses located within multi-family facilities.

- NSTAR worked in conjunction with Conservation Services Group (“CSG”), a vendor contracted for marketing services, to develop and finalize two different direct mail collateral pieces for two separate mailings to the targeted list. Both pieces described the various measures available at no cost through the program and instructed the customers to call the local Community Action Program Agency, Tri-City Community Action Program, Inc., directly to schedule an assessment.
- The first direct mail piece was printed and mailed to the targeted list on May 10, 2013. As of July 2013, Tri-City Community Action Program, Inc. had received 42 calls regarding the mailing, a 3.24% response rate, and has completed 21 energy assessments to date.
- The second direct mail piece was printed and mailed to the targeted list on July 22, 2013. The response rate in addition to the number of completed assessments will continue to be tracked and reported within the final metric document.
- Research on property management companies and landlords of affordable housing as well as Public Housing Authorities within Somerville has occurred via NSTAR’s lead vendor, ABCD, and outreach is ongoing via phone calls and meetings. To date, NSTAR has completed an assessment of a 50 unit multi-family property in Somerville and is in the process of installing Energy Efficient lighting.

NSTAR will continue to analyze participation uptake, including kWh and therm savings of the Low Income Program in Q3 through Q4 2013 from the baseline of participation in Q3 through Q4 2012 within Somerville and will continue to implement the remainder of the marketing plan as outlined in the initial documentation submitted on May 1, 2013.

Unitil Electric & Gas Marketing Plan

Unitil has developed a marketing plan to increase participation by 5% in the hard to reach community of Fitchburg. Unitil began implementation of this marketing plan in June 2013: To date, Unitil has completed the following:

- Partnered with the Green and Healthy Homes Initiative to ensure that anyone receiving state referrals is checked for all available program participation, including Unitil’s Low Income Weatherization program, as well as others such as rodent remediation, Lead Safety, Smoking awareness, etc.
- Worked in coordination with Montachusett Opportunity Council, Inc. (MOC) to provide a list of high usage LI customers for MOC to vet for participation
- Developed a bill insert to be included in bills later this year
- Meeting with Chamber of Commerce to set up a seminar for a QA session

Unitil monitored customer participation and note participation uptake through Q3 and Q4.

2. Multi-family Building Inventory {Electric & Gas} – Statewide

Threshold: *In coordination with LEAN the utilities shall continue to support the development and on-going efforts of the 2010-2012 statewide non-profit multi-family building inventories, begun in 2010 and scheduled to conclude by the end of 2013. The objective is to facilitate benchmarking for identification of energy retrofit potential in low-income multifamily buildings and to screen potential projects. Benchmarking allows the Low-Income Multifamily Program to identify and target the most energy-inefficient buildings in order to maximize deep, comprehensive savings. This four-year effort, begun in 2010, provides building square footage and at least a year of energy consumption data with respect to buildings that are majority-occupied by low-income tenants. This information is currently systematically available on a limited basis for public housing authority buildings and virtually not at all for other buildings. The information will support development of an energy efficiency standard (e.g., BTUs of energy per square foot of heated space) for low-income multi-family buildings.*

UPDATE:

The utility PAs have continued the statewide inventory. Therefore, each utility PA has met the threshold of this metric. Also, please see below under “Design” for more detail and quantitative data with respect to achievement of this metric.

Design: *Each utility PA will conduct an inventory in its service territory, reaching the designated milestone number of account reports (defined under “Baseline Information”) as indicated below. Each utility will support the inventory on an allocated basis, with a statewide total of 838.5 accounts per month through June 30, 2013 (not including Cape Light Compact).*

UPDATE:

Each PA identified and maintained inventory within its service territory, reaching the designated milestone number of account reports as specified within the Design level of the metric.

Program Administrator	% Allocation	Goal		Actual	
		# of Acct Reports/ Year*	# of Acct Reports/ Month	# of Acct Reports/ Year*	Ave # of Acct Reports/ Month
Berkshire Gas	1.67%	84	14	85	14
Columbia Gas	8.94%	450	75	451	75
Liberty Utilities	1.19%	60	10	60	10
National Grid Electric	18.72%	942	157	944	157
National Grid Gas	22.18%	1,116	186	1,118	186
NSTAR Electric	26.48%	1,332	222	1,332	222
NSTAR Gas	15.38%	774	129	776	129
Unitil Electric	0.12%	6	1	8	1
Unitil Gas	0.06%	3	0.5	3	0.5
WMECO	5.25%	264	44	264	44
TOTAL		5,031	838.5	5,041	840.2

* Year represents January through June 30, 2013

Exemplary: *By Jan 31st, 2014, in coordination with LEAN, each PA will submit a status report showing its inventory results. The status report shall include a summary of what has been learned to date relating to the energy consumption in non-profit low income multi-family buildings (e.g., average BTUs/square foot, reasonable target consumption, reasonable threshold consumption for weatherization measures, etc.), and recommendations as appropriate.*

UPDATE:

In coordination with LEAN, the PAs submitted a status report on January 30, 2014 showing inventory results, including a summary of what has been learned to date relating to the energy consumption in non-profit low income multi-family buildings (e.g., average BTUs/square foot, reasonable target consumption, reasonable threshold consumption for weatherization measures, etc.), and recommendations as appropriate. All PAs have achieved exemplary status for this metric. A summary of the work in 2013 and the findings are as follows:

2013 Summary and Findings:

In summary, 5,041 accounts were inventoried and ranked as part of the 2013 efforts, with 2,493 from gas accounts and 2,548 from electric accounts. Based upon a quartile analysis of the data gathered from January 2013 through June 2013, energy benchmarks were calculated for Gas Usage, Whole Building Electricity Usage, Common Area Electricity Usage, and Usage for Electrically Heated facilities. The median was used to develop the four quartiles as defined by WegoWise for the inventoried accounts. The mean of inventoried accounts fell into one of the four quartiles below for each category.

- “Energy Efficient” – defined as buildings in the top quartile of performance;
- “Better than Median” – represents the second quartile of performance;
- “Worse than Median” – details the third quartile of performance; and
- “Poor” – represents the fourth quartile.

The calculated benchmarks can be used to approximately assess a building’s performance relative to other affordable housing buildings in Massachusetts based on where its energy use falls within this classification scheme. Accounts that fall into the “Worse” and “Poor” categories likely have particularly attractive payback energy efficiency opportunities. The following means (averages) were calculated by WegoWise based on the results of the 2013 benchmarking effort relative to usage per square foot:

Usage Type	Average (Mean)	Quartile	EE Classification
Gas	0.69 Therms/sq ft	3	Worse than Median
Electric Common Areas	5.17 kWh/sq ft	3	Worse than Median
Electric Whole Building	5.00 kWh/sq ft	3	Worse than Median
Electrically Heated Building	11.09 kWh/sq ft	3	Worse than Median

Buildings that fall into the “Poor” energy efficiency classification have the greatest opportunity for energy usage improvement and would lead to significant energy savings by bringing these buildings to at least the median level of efficiency. Estimated below are the potential energy

savings for each “Poor” building by calculating the difference between current whole building usage and the potential usage if that building were to upgrade to perform at the median per square foot benchmark.

Building Type	# of "Poor" Buildings	Energy Savings
Gas Heat/Hot Water	1,101	2,256,887 Therms
Electrically Heated	68	2,940,707 kWh
Non-Electrically Heated	499	15,738,817 kWh

In short, the inventory of accounts that were benchmarked in 2013 reinforces the need and demand for energy efficiency within low-income multi-family buildings in Massachusetts. PAs, in conjunction with LEAN and Low Income Multi-family vendors, continue to review the details of the inventory and target customers that appear in the bottom quartiles (“worse than average” and “poor” respectively) first. These buildings show the greatest opportunity for energy savings and further exemplify a strong pool of candidates likely to be ripe for cost-effective energy efficiency.

C. Commercial & Industrial

2013 C&I Q4 Metrics review is as follows:

1. C&I Large Retrofit Depth of Savings

Detailed Description:

For Electric PAs: To qualify, projects with customers that use gas must achieve a minimum of 15% building electric savings and at least 5% gas savings. For those that do not use gas, projects can qualify if they meet either a minimum of 15% electric savings and 5% other fuel savings, or a minimum of 20% electric savings alone.

For Gas PAs: To qualify, projects with customers that use electricity delivered by a PA offering Mass Save programs must achieve a minimum of 15% building gas savings, plus at least 5% electric savings. For those that do not use electricity delivered by a PA offering Mass Save programs (e.g., a municipal utility), projects can qualify if they meet a minimum of 20% gas savings alone.

Note: A single project can be counted by both an electric and a gas PA so long as it meets each of their depth criteria (i.e., it met or exceeded both 15% electric savings and 15% gas savings).

2013 Targets:

- Threshold level: 5% more qualifying projects than were achieved in 2012
- Design level: 10% more qualifying projects than were achieved in 2012
- Exemplary level: 20% more qualifying projects than were achieved in 2012

The table below describes the PAs' results for the C&I Large Retrofit Depth of Savings metric through December 31, 2013

	Number of Qualifying Projects YTD Dec	Number of Qualifying Projects in 2012	Threshold Goal 5%	Design Goal 10%	Exemplary Goal 20%
NSTAR Electric	32	28	29	31	34
NSTAR Gas	17	15	16	17	18
National Grid Electric	3	8	9	10	11
National Grid Gas	14	13	14	15	16
WMECO	5	3	4	5	6
Berkshire Gas	2	2	3	4	5
Columbia Gas of MA	3	8	9	10	11
Liberty Utilities	1	2	3	4	5
Unitil Electric	0	0	1	2	3
Unitil Gas	0	0	1	2	3

2. C&I New Construction Depth of Savings

For Electric PAs: For projects that use gas, to qualify they must achieve a minimum of 20% whole building savings for both gas and electric usage. For projects that do not use gas, projects can qualify if they meet either a minimum of 20% whole building savings for both electric and other non-gas fuel usage, OR a minimum of 25% electric savings alone.

For Gas PAs: For projects that use electricity delivered by a PA that offers a Mass Save program, to qualify projects must achieve a minimum of 20% whole building savings for both gas and electric usage. For projects that do not use electricity delivered by a PA offering a Mass Save program, projects can qualify if they meet a minimum of 25% gas savings alone.

Note: A single project can be counted by both an electric and a gas PA so long as it meets each of their depth criteria (e.g., it met or exceeded 20% whole building savings for both electric and gas).

2013 Targets:

- Threshold level: 5% increase in the percentage of qualifying projects than was achieved in 2012
- Design level: 10% increase in the percentage of qualifying projects than was achieved in 2012
- Exemplary level: 20% increase in the percentage of qualifying projects than was achieved in 2012

The table below describes the utility PAs' results for the 2013 C&I New Construction Depth of Savings metric through December 31, 2013

	% of Qualifying Projects YTD Dec	% of Qualifying Projects in 2012	Threshold Goal 5%	Design Goal 10%	Exemplary Goal 20%
NSTAR Electric	37%	22%	23%	24%	26%
NSTAR Gas	47%	40%	42%	44%	48%
National Grid Electric	65%	62%	65%	69%	75%
National Grid Gas	42%	40%	42%	44%	48%
WMECO	8%	0%	5%	10%	20%
Berkshire Gas	0%	0%	5%	10%	20%
Columbia Gas of MA	50%	83%	87%	91%	100%
Liberty Utilities	0%	0%	5%	10%	20%
Unitil Electric	0%	0%	5%	10%	20%
Unitil Gas	0%	0%	5%	10%	20%

3. **Small Business Direct Install Depth of Savings**

For Electric PAs: For all PA SBDI projects completed in 2013 the metric is met by achieving an average depth of savings as a percent of building electric annual usage that meets the target.

For Gas PAs: For all PA SBDI projects completed in 2013 the metric is met by achieving an average depth of savings as a percent of building gas annual usage that meets the target.

2013 Targets:

- Threshold level: 5% increase in average percentage depth achieved in 2012
- Design level: 10% increase in average percentage depth achieved in 2012
- Exemplary level: 20% increase in average percentage depth achieved in 2012

The table below describes the utility PAs' results for the Small Business Direct Install Depth of Savings metric through December 31, 2013

	% Depth Achieved YTD Dec	% Depth Achieved in 2012	Threshold Goal 5%	Design Goal 10%	Exemplary Goal 20%
NSTAR Electric	13%	13%	14%	15%	16%
NSTAR Gas	7%	5%	6%	7%	8%
National Grid Electric	14.1%	12.7%	13.3%	14.0%	15.9%
National Grid Gas	3.3%	5.6%	5.9%	6.2%	6.7%
WMECO	12%	15%	16%	17%	18%
Berkshire Gas	0%	10.34%	10.86%	11.37%	12.41%
Columbia Gas of MA	3.66%	6.08%	6.38%	6.69%	7.30%
Liberty Utilities	3%	22.59%	23.71%	24.85%	27.10%
Unitil Electric	13%	16.3%	17.15%	17.96%	19.59%
Unitil Gas	18%	7.6%	7.94%	8.32%	9.07%

ATTACHMENT A
QUANTITATIVE REPORT

**STATEWIDE ELECTRIC BUDGETS SPEND
Q3 2013**

	Total Sum of Program Planning and Administration	Total Sum of Marketing and Advertising	Total Sum of Participant Incentive	Total Sum of Sales, Technical Assistance & Training	Total Sum of Evaluation and Market Research	Total Sum of Total Spend
Row Labels						
Electric						
Goal	\$ 27,969,172	\$ 17,632,591	\$ 351,403,005	\$ 69,370,509	\$ 15,487,556	\$ 481,862,833
Residential	\$ 6,262,573	\$ 10,645,060	\$ 102,828,309	\$ 29,001,030	\$ 5,045,519	\$ 153,782,491
1. Residential Whole House	\$ 3,274,718	\$ 3,590,686	\$ 67,798,580	\$ 20,519,988	\$ 3,556,790	\$ 98,740,762
2. Residential Products	\$ 1,526,896	\$ 4,055,215	\$ 26,617,174	\$ 6,125,964	\$ 1,344,462	\$ 39,669,711
3. Residential Hard-to-Measure	\$ 1,460,958	\$ 2,999,159	\$ 8,412,556	\$ 2,355,078	\$ 144,267	\$ 15,372,018
Low-Income	\$ 3,233,979	\$ 616,728	\$ 39,131,176	\$ 9,398,821	\$ 1,756,129	\$ 54,136,833
4. Low-Income Whole House	\$ 1,824,486	\$ 347,465	\$ 39,131,176	\$ 9,384,421	\$ 1,715,890	\$ 52,403,439
5. Low-Income Hard-to-Measure	\$ 1,409,493	\$ 269,263	\$ -	\$ 14,400	\$ 40,238	\$ 1,733,394
Commercial & Industrial	\$ 18,472,620	\$ 6,370,803	\$ 209,448,520	\$ 30,970,658	\$ 8,685,908	\$ 273,943,509
6. C&I New Construction	\$ 3,973,572	\$ 1,467,874	\$ 43,714,516	\$ 8,153,201	\$ 2,126,508	\$ 59,435,671
7. C&I Retrofit	\$ 11,764,834	\$ 3,735,474	\$ 165,729,003	\$ 22,817,458	\$ 6,348,963	\$ 210,395,732
8. C&I Hard-to-Measure	\$ 2,734,214	\$ 1,167,455	\$ -	\$ -	\$ 210,436	\$ 4,112,106
Q4	\$ 19,490,020	\$ 12,582,522	\$ 324,593,555	\$ 64,874,712	\$ 5,563,971	\$ 427,104,780
Residential	\$ 4,769,279	\$ 9,876,238	\$ 124,978,713	\$ 31,375,202	\$ 2,108,716	\$ 173,108,148
1. Residential Whole House	\$ 2,445,078	\$ 3,353,378	\$ 78,875,927	\$ 21,393,698	\$ 1,174,816	\$ 107,242,897
2. Residential Products	\$ 1,116,086	\$ 3,764,413	\$ 35,534,161	\$ 4,947,933	\$ 903,150	\$ 46,265,743
3. Residential Hard-to-Measure	\$ 1,208,114	\$ 2,758,447	\$ 10,568,625	\$ 5,033,571	\$ 30,751	\$ 19,599,509
Low-Income	\$ 1,820,453	\$ 416,120	\$ 39,219,951	\$ 8,187,592	\$ 689,748	\$ 50,333,864
4. Low-Income Whole House	\$ 1,300,880	\$ 156,012	\$ 39,219,951	\$ 8,040,124	\$ 689,121	\$ 49,406,088
5. Low-Income Hard-to-Measure	\$ 519,574	\$ 260,107	\$ -	\$ 147,468	\$ 627	\$ 927,776
Commercial & Industrial	\$ 12,900,288	\$ 2,290,165	\$ 160,394,891	\$ 25,311,917	\$ 2,765,507	\$ 203,662,768
6. C&I New Construction	\$ 2,377,481	\$ 282,607	\$ 44,942,350	\$ 5,431,477	\$ 772,359	\$ 53,806,274
7. C&I Retrofit	\$ 7,560,249	\$ 1,036,505	\$ 115,452,542	\$ 19,824,778	\$ 1,969,658	\$ 145,843,731
8. C&I Hard-to-Measure	\$ 2,962,558	\$ 971,052	\$ -	\$ 55,662	\$ 23,490	\$ 4,012,763

YTD as Percentage to Goal	Program Planning and Administration	Marketing and Advertising	Participant Incentive	Sales, Technical Assistance & Training	Evaluation and Market Research	Total Spend
Electric	70%	71%	92%	94%	36%	89%
Residential	76%	93%	122%	108%	42%	113%
1. Residential Whole House	75%	93%	116%	104%	33%	109%
2. Residential Products	73%	93%	134%	81%	67%	117%
3. Residential Hard-to-Measure	83%	92%	126%	214%	21%	128%
Low-Income	56%	67%	100%	87%	39%	93%
4. Low-Income Whole House	71%	45%	100%	86%	40%	94%
5. Low-Income Hard-to-Measure	37%	97%	0%	1024%	2%	54%
Commercial & Industrial	70%	36%	77%	82%	32%	74%
6. C&I New Construction	60%	19%	103%	67%	36%	91%
7. C&I Retrofit	64%	28%	70%	87%	31%	69%
8. C&I Hard-to-Measure	108%	83%	0%	0%	11%	98%

**STATEWIDE ELECTRIC SAVINGS
Q3 2013**

Row Labels	Total Sum of Participants	Total Sum of Capacity (kW)	Total Sum of Energy (annual MWh)	Total Sum of Energy (Lifetime MWh)
Electric				
Goal	2,204,880	173,352	1,195,186	13,146,628
Residential	2,160,523	42,973	329,791	1,892,380
1. Residential Whole House	915,457	21,056	153,182	596,356
1a. Residential New Construction	3,332	923	5,019	52,630
1b. Residential Multi-Family Retrofit	24,896	892	15,502	159,565
1c. Residential Home Energy Services	46,798	4,008	32,928	284,428
1d. Residential Behavior/Feedback	840,431	15,233	99,733	99,733
2. Residential Products	1,245,066	21,917	176,609	1,296,024
2a. Residential Cooling & Heating Equipment	12,008	3,198	5,852	80,459
2b. Residential Lighting	1,142,091	16,668	155,437	1,094,927
2c. Residential Consumer Products	90,968	2,051	15,320	120,638
Low-Income	27,879	3,332	28,837	265,017
4. Low-Income Whole House	27,879	3,332	28,837	265,017
4a. Low-Income New Construction	1,245	128	1,184	11,476
4b. Low-Income Single Family Retrofit	10,445	1,543	13,043	119,243
4c. Low-Income Multi-Family Retrofit	16,189	1,661	14,610	134,298
Commercial & Industrial	16,477	127,046	836,559	10,989,232
6. C&I New Construction	5,097	35,895	205,768	2,700,683
6a. C&I New Construction	5,097	35,895	205,768	2,700,683
7. C&I Retrofit	11,380	91,151	630,790	8,288,549
7a. C&I Retrofit	3,748	68,108	509,669	6,979,842
7b. C&I Direct Install	7,632	23,043	121,121	1,308,707
Q4	2,776,272	152,574	1,068,971	11,673,063
Residential	2,712,407	38,994	373,887	2,547,983
1. Residential Whole House	952,756	13,156	163,082	741,242
1a. Residential New Construction	3,013	1,754	7,693	93,118
1b. Residential Multi-Family Retrofit	29,298	1,003	19,191	197,551
1c. Residential Home Energy Services	45,795	3,661	45,712	360,088
1d. Residential Behavior/Feedback	874,650	6,737	90,486	90,486
2. Residential Products	1,759,651	25,838	210,805	1,806,741
2a. Residential Cooling & Heating Equipment	17,388	3,776	11,020	141,028
2b. Residential Lighting	1,625,068	19,861	183,967	1,549,071
2c. Residential Consumer Products	117,195	2,202	15,818	116,642
Low-Income	40,724	3,415	33,075	324,216
4. Low-Income Whole House	40,724	3,415	33,075	324,216
4a. Low-Income New Construction	568	81	606	8,975
4b. Low-Income Single Family Retrofit	9,465	1,986	15,549	171,059
4c. Low-Income Multi-Family Retrofit	30,691	1,349	16,919	144,182
Commercial & Industrial	23,141	110,164	662,010	8,800,864
6. C&I New Construction	16,738	43,446	210,829	2,742,583
6a. C&I New Construction	16,738	43,446	210,829	2,742,583
7. C&I Retrofit	6,403	66,718	451,181	6,058,281
7a. C&I Retrofit	2,042	42,866	349,830	4,914,104
7b. C&I Direct Install	4,361	23,852	101,351	1,144,177

YTD as Percentage to Goal	Participants	Capacity (kW)	Energy (annual MWh)	Energy (Lifetime MWh)
Electric	126%	88%	89%	89%
Residential	126%	91%	113%	135%
1. Residential Whole House	104%	62%	106%	124%
1a. Residential New Construction	90%	190%	153%	177%
1b. Residential Multi-Family Retrofit	118%	112%	124%	124%
1c. Residential Home Energy Services	98%	91%	139%	127%
1d. Residential Behavior/Feedback	104%	44%	91%	91%
2. Residential Products	141%	118%	119%	139%
2a. Residential Cooling & Heating Equipment	145%	118%	188%	175%
2b. Residential Lighting	142%	119%	118%	141%
2c. Residential Consumer Products	129%	107%	103%	97%
Low-Income	146%	102%	115%	122%
4. Low-Income Whole House	146%	102%	115%	122%
4a. Low-Income New Construction	46%	63%	51%	78%
4b. Low-Income Single Family Retrofit	91%	129%	119%	143%
4c. Low-Income Multi-Family Retrofit	190%	81%	116%	107%
Commercial & Industrial	140%	87%	79%	80%
6. C&I New Construction	328%	121%	102%	102%
6a. C&I New Construction	328%	121%	102%	102%
7. C&I Retrofit	56%	73%	72%	73%
7a. C&I Retrofit	54%	63%	69%	70%
7b. C&I Direct Install	57%	104%	84%	87%

**STATEWIDE ELECTRIC BENEFITS
Q3 2013**

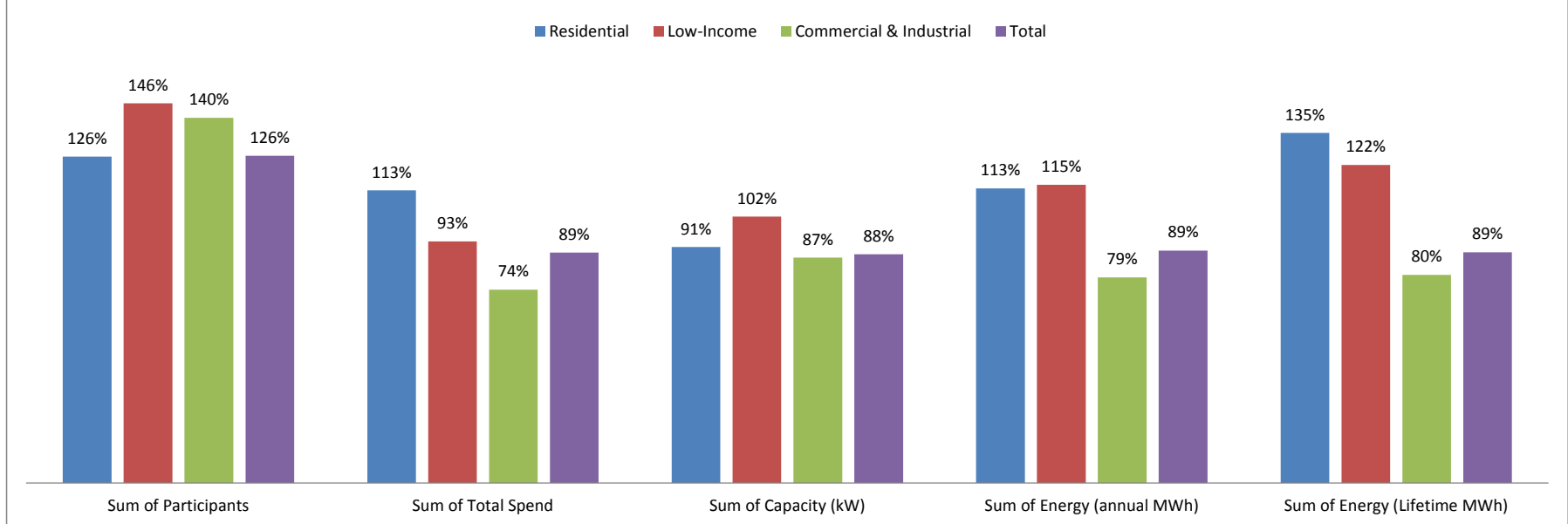
Row Labels	Total Sum of Total Electric Benefits	Total Sum of Total Other Resource Benefits	Total Sum of Total Gas Benefits	Total Sum of Total Non Resource Benefits	Total Sum of Total Benefits
Electric					
Goal	\$ 1,888,586,631	209,399,316	(146,982,476)	386,843,679	\$ 2,337,847,150
Residential	\$ 259,401,138	190,606,948	3,431,166	202,858,355	\$ 656,297,607
1. Residential Whole House	\$ 85,531,634	190,606,948	3,808,497	191,966,849	\$ 471,913,927
1a. Residential New Construction	\$ 9,275,786	5,651,503	1,052,392	6,141,293	\$ 22,120,974
1b. Residential Multi-Family Retrofit	\$ 18,609,728	885,200	14,664	30,405,052	\$ 49,914,644
1c. Residential Home Energy Services	\$ 45,667,823	184,070,245	2,741,441	155,420,504	\$ 387,900,013
1d. Residential Behavior/Feedback	\$ 11,978,296	-	-	-	\$ 11,978,296
2. Residential Products	\$ 173,869,505	-	(377,331)	10,891,507	\$ 184,383,680
2a. Residential Cooling & Heating Equipment	\$ 17,338,901	-	(377,331)	1,587,969	\$ 18,549,538
2b. Residential Lighting	\$ 140,173,509	-	-	9,303,537	\$ 149,477,046
2c. Residential Consumer Products	\$ 16,357,095	-	-	-	\$ 16,357,095
Low-Income	\$ 36,210,276	38,944,592	1,282,362	40,533,143	\$ 116,970,374
4. Low-Income Whole House	\$ 36,210,276	38,944,592	1,282,362	40,533,143	\$ 116,970,374
4a. Low-Income New Construction	\$ 1,589,099	700,420	1,271,959	6,233,420	\$ 9,794,897
4b. Low-Income Single Family Retrofit	\$ 16,890,312	37,358,462	10,404	14,877,318	\$ 69,136,496
4c. Low-Income Multi-Family Retrofit	\$ 17,730,866	885,710	-	19,422,405	\$ 38,038,981
Commercial & Industrial	\$ 1,592,975,217	(20,152,225)	(151,696,004)	143,452,181	\$ 1,564,579,169
6. C&I New Construction	\$ 410,727,360	(9,147,311)	(3,299,804)	526,907	\$ 398,807,151
6a. C&I New Construction	\$ 410,727,360	(9,147,311)	(3,299,804)	526,907	\$ 398,807,151
7. C&I Retrofit	\$ 1,182,247,857	(11,004,914)	(148,396,200)	142,925,275	\$ 1,165,772,018
7a. C&I Retrofit	\$ 978,802,037	(12,489,339)	(138,039,688)	115,589,528	\$ 943,862,538
7b. C&I Direct Install	\$ 203,445,820	1,484,425	(10,356,512)	27,335,747	\$ 221,909,480
Q4	\$ 1,521,815,487	278,699,581	(76,246,480)	348,181,144	\$ 2,233,627,018
Residential	\$ 309,646,306	238,941,882	5,296,860	176,281,985	\$ 758,348,027
1. Residential Whole House	\$ 90,458,152	238,941,882	5,817,842	162,116,898	\$ 504,356,773
1a. Residential New Construction	\$ 16,699,293	12,198,310	211,775	2,867,549	\$ 33,015,644
1b. Residential Multi-Family Retrofit	\$ 21,281,155	264,290	19,302	3,278,971	\$ 26,573,987
1c. Residential Home Energy Services	\$ 43,550,029	226,479,282	5,586,766	155,970,378	\$ 435,275,967
1d. Residential Behavior/Feedback	\$ 8,927,675	-	-	-	\$ 9,491,174
2. Residential Products	\$ 219,188,154	-	(520,982)	14,165,087	\$ 253,991,255
2a. Residential Cooling & Heating Equipment	\$ 24,043,002	-	(520,302)	2,112,874	\$ 26,735,841
2b. Residential Lighting	\$ 180,839,052	-	(680)	11,255,658	\$ 210,625,052
2c. Residential Consumer Products	\$ 14,306,100	-	-	796,556	\$ 16,630,362
Low-Income	\$ 40,817,543	51,819,663	699,545	22,975,741	\$ 119,974,281
4. Low-Income Whole House	\$ 40,817,543	51,819,663	699,545	22,975,741	\$ 119,974,281
4a. Low-Income New Construction	\$ 1,859,784	385,742	682,719	1,999,170	\$ 5,128,654
4b. Low-Income Single Family Retrofit	\$ 23,322,420	47,315,281	16,826	13,534,548	\$ 85,300,930
4c. Low-Income Multi-Family Retrofit	\$ 15,635,339	4,118,641	-	7,442,023	\$ 29,544,697
Commercial & Industrial	\$ 1,171,351,637	(12,061,965)	(82,242,885)	148,923,417	\$ 1,355,304,710
6. C&I New Construction	\$ 392,554,220	(5,133,590)	2,340,380	49,729,814	\$ 478,055,023
6a. C&I New Construction	\$ 392,554,220	(5,133,590)	2,340,380	49,729,814	\$ 478,055,023
7. C&I Retrofit	\$ 778,797,417	(6,928,375)	(84,583,265)	99,193,604	\$ 877,249,687
7a. C&I Retrofit	\$ 608,422,429	(7,980,254)	(76,735,942)	70,211,565	\$ 666,377,222
7b. C&I Direct Install	\$ 170,374,987	1,051,879	(7,847,323)	28,982,039	\$ 210,872,464

YTD as Percentage to Goal					
	Electric Benefits	Other Resource Benefits	Gas Benefits	Non Resource Benefits	Sum of Total Benefits
Electric	81%	133%	52%	90%	96%
Residential	119%	125%	154%	87%	116%
1. Residential Whole House	106%	125%	153%	84%	107%
1a. Residential New Construction	180%	216%	20%	47%	149%
1b. Residential Multi-Family Retrofit	114%	30%	132%	11%	53%
1c. Residential Home Energy Services	95%	123%	204%	100%	112%
1d. Residential Behavior/Feedback	75%	0%	0%	0%	79%
2. Residential Products	126%	0%	138%	130%	138%
2a. Residential Cooling & Heating Equipment	139%	0%	138%	133%	144%
2b. Residential Lighting	129%	0%	0%	121%	141%
2c. Residential Consumer Products	87%	0%	0%	0%	102%
Low-Income	113%	133%	55%	57%	103%
4. Low-Income Whole House	113%	133%	55%	57%	103%
4a. Low-Income New Construction	117%	55%	54%	32%	52%
4b. Low-Income Single Family Retrofit	138%	127%	162%	91%	123%
4c. Low-Income Multi-Family Retrofit	88%	465%	0%	38%	78%
Commercial & Industrial	74%	60%	54%	104%	87%
6. C&I New Construction	96%	56%	-71%	9438%	120%
6a. C&I New Construction	96%	56%	-71%	9438%	120%
7. C&I Retrofit	66%	63%	57%	69%	75%
7a. C&I Retrofit	62%	64%	56%	61%	71%
7b. C&I Direct Install	84%	71%	76%	106%	95%

STATEWIDE ELECTRIC SUMMARY Q3 2013

Values					
Row Labels	Sum of Participants	Sum of Total Spend	Sum of Capacity (kW)	Sum of Energy (annual MWh)	Sum of Energy (Lifetime MWh)
Electric					
Goal	2,204,880	\$ 481,862,833	173,352	1,195,186	13,146,628
Residential	2,160,523	\$ 153,782,491	42,973	329,791	1,892,380
Low-Income	27,879	\$ 54,136,833	3,332	28,837	265,017
Commercial & Industrial	16,477	\$ 273,943,509	127,046	836,559	10,989,232
Q4	2,776,272	427,104,780	152,574	1,068,971	11,673,063
Residential	2,712,407	173,108,148	38,994	373,887	2,547,983
Low-Income	40,724	50,333,864	3,415	33,075	324,216
Commercial & Industrial	23,141	203,662,768	110,164	662,010	8,800,864
YTD as % of goal	126%	89%	88%	89%	89%
Residential	126%	113%	91%	113%	135%
Low-Income	146%	93%	102%	115%	122%
Commercial & Industrial	140%	74%	87%	79%	80%

YTD Preliminary Actuals as a Percent of Plan Goal

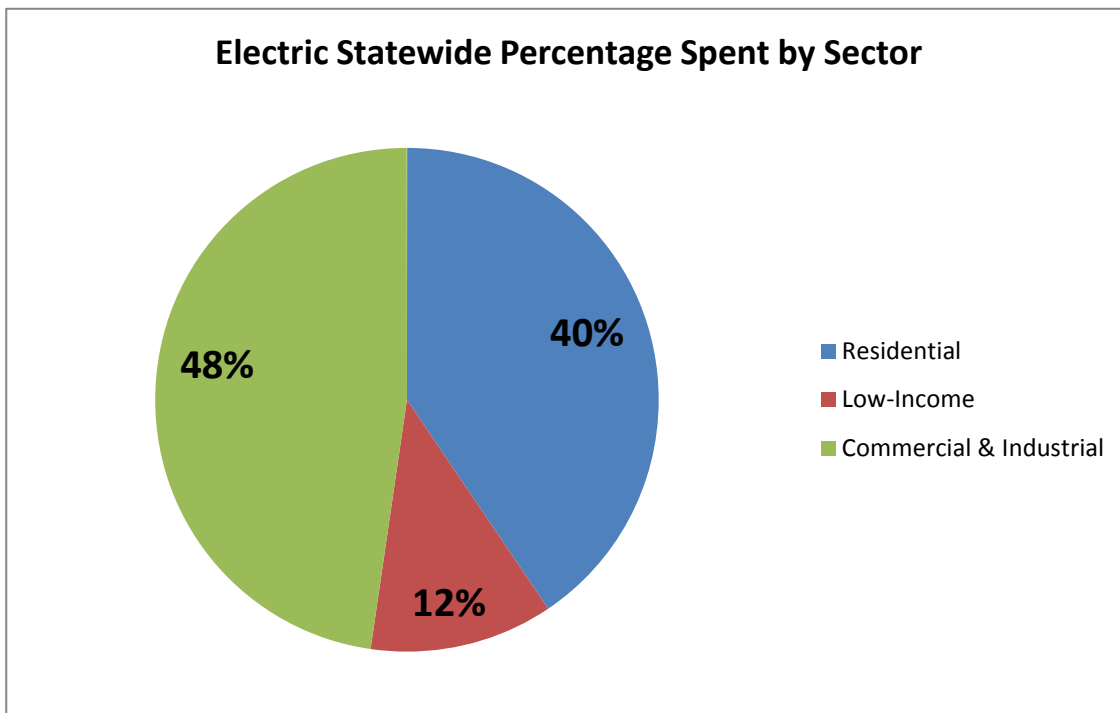
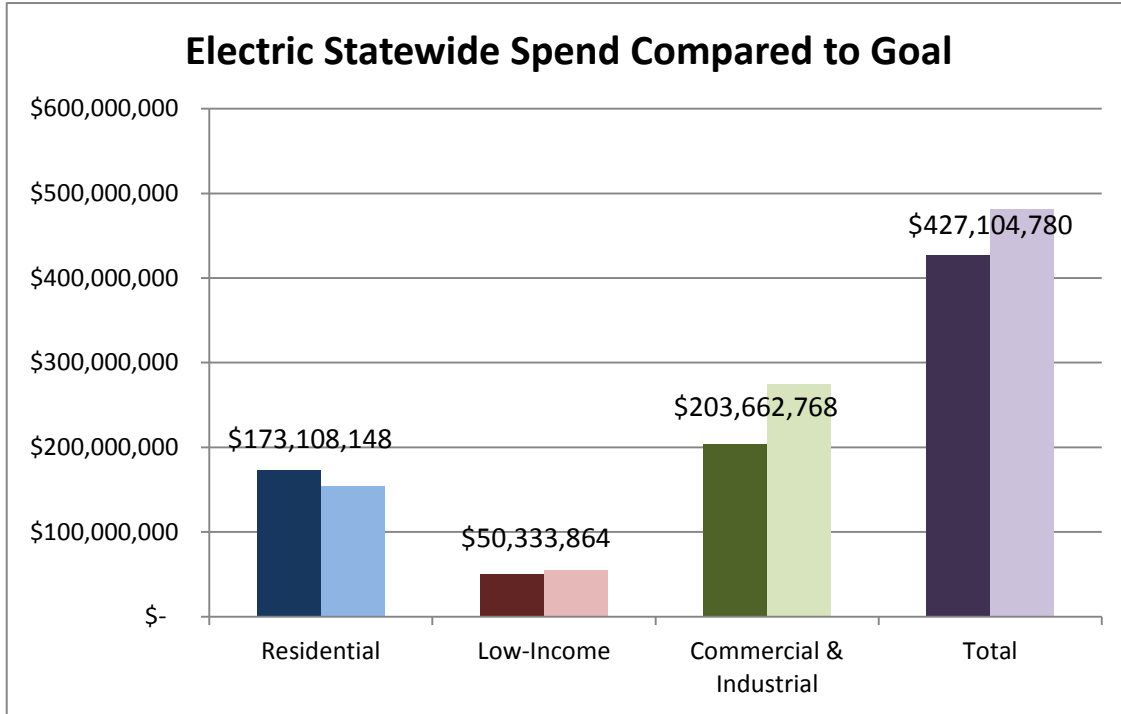


STATEWIDE ELECTRIC SUMMARY

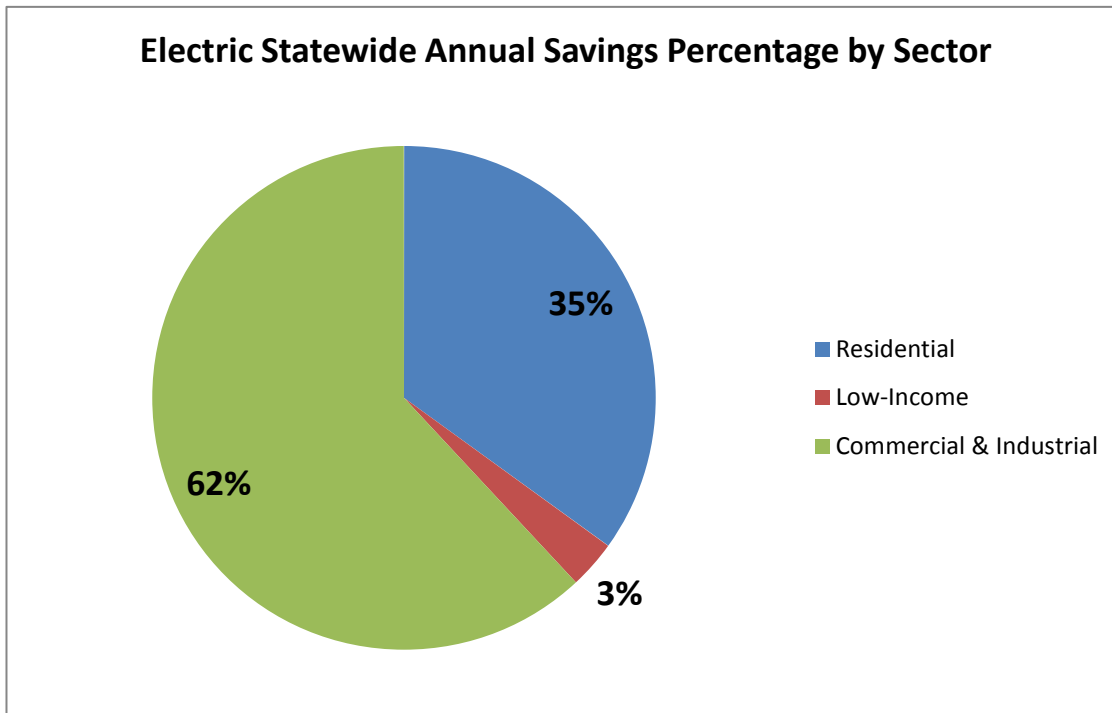
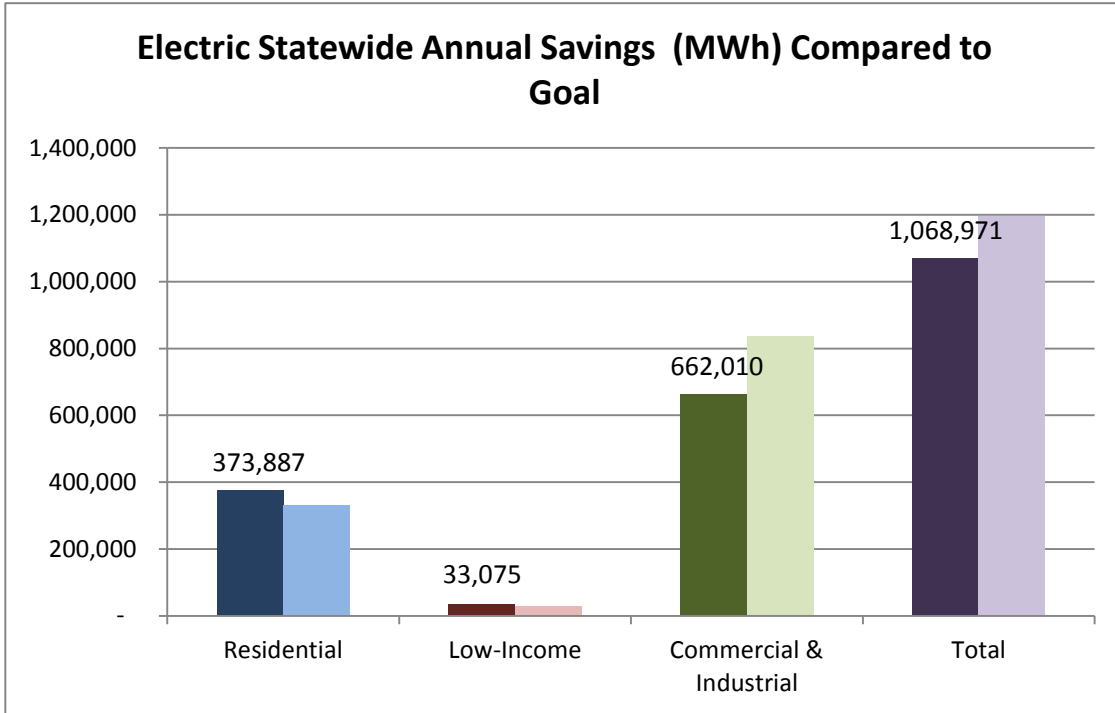
Q3 2013

Sum of Energy (Lifetime MWh) Row Labels	Column Labels				
	National Grid	UNITIL	CLC	NU (NSTAR)	NU (WMECo)
Electric					
Goal	5,714,431	96,645	412,865	6,014,393	908,293
Residential	925,837	9,174	135,146	634,788	187,435
1. Residential Whole House	304,235	2,027	53,196	184,365	52,533
1a. Residential New Construction	27,463	618	3,853	18,312	2,385
1b. Residential Multi-Family Retrofit	92,938	781	7,061	54,409	4,375
1c. Residential Home Energy Services	115,805	628	42,100	88,940	36,955
1d. Residential Behavior/Feedback	68,029	-	182	22,704	8,818
2. Residential Products	621,602	7,147	81,949	450,423	134,902
2a. Residential Cooling & Heating Equipment	29,847	436	9,053	34,294	6,829
2b. Residential Lighting	535,930	5,170	59,784	372,404	121,639
2c. Residential Consumer Products	55,826	1,541	13,112	43,725	6,434
3. Residential Hard-to-Measure		-	-	-	-
Low-Income	118,474	3,301	11,299	93,085	38,858
4. Low-Income Whole House	118,474	3,301	11,299	93,085	38,858
4a. Low-Income New Construction	5,229	247	172	4,410	1,418
4b. Low-Income Single Family Retrofit	57,246	864	8,819	38,330	13,983
4c. Low-Income Multi-Family Retrofit	55,998	2,190	2,308	50,345	23,458
5. Low-Income Hard-to-Measure		-	-	-	-
Commercial & Industrial	4,670,121	84,170	266,421	5,286,520	682,000
6. C&I New Construction	1,241,862	10,673	86,578	1,238,125	123,446
6a. C&I New Construction	1,241,862	10,673	86,578	1,238,125	123,446
7. C&I Retrofit	3,428,259	73,498	179,842	4,048,395	558,554
7a. C&I Retrofit	3,093,629	50,550	100,666	3,486,021	248,976
7b. C&I Direct Install	334,630	22,948	79,176	562,374	309,578
8. C&I Hard-to-Measure		-	-	-	-
Q4	4,508,031	95,475	286,002	5,780,504	1,003,051
Residential	1,318,243	14,058	108,131	908,669	198,882
1. Residential Whole House	404,375	5,325	48,429	249,515	33,598
1a. Residential New Construction	33,859	3,263	4,384	45,502	6,109
1b. Residential Multi-Family Retrofit	124,994	706	4,706	61,297	5,848
1c. Residential Home Energy Services	174,403	1,356	39,338	125,213	19,777
1d. Residential Behavior/Feedback	71,118	-	-	17,504	1,863
2. Residential Products	913,869	8,733	59,702	659,154	165,284
2a. Residential Cooling & Heating Equipment	71,634	1,234	14,889	38,456	14,816
2b. Residential Lighting	783,580	5,979	38,283	578,962	142,267
2c. Residential Consumer Products	58,655	1,520	6,530	41,735	8,201

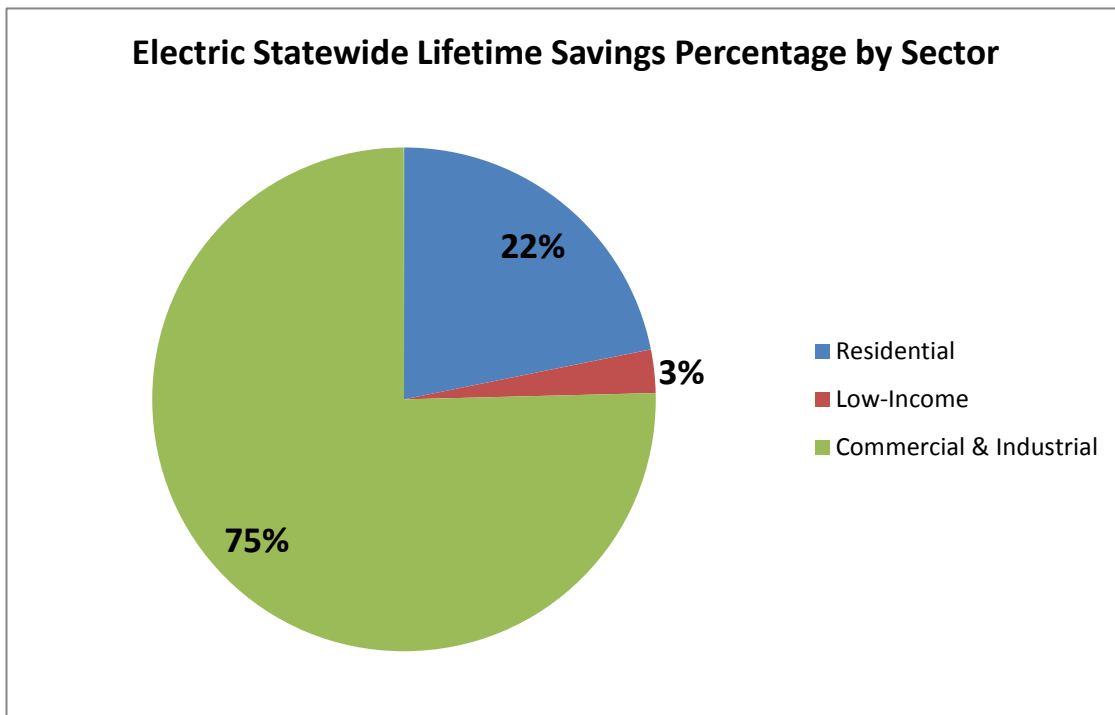
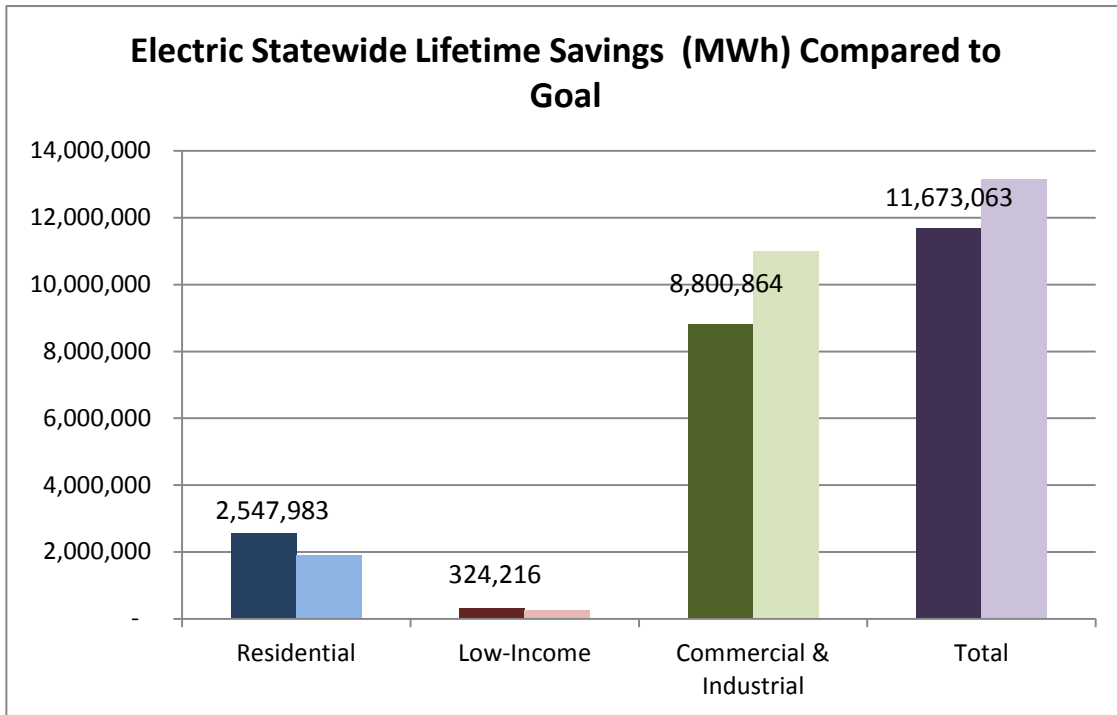
ELECTRIC STATEWIDE BUDGETS, Q4 2013



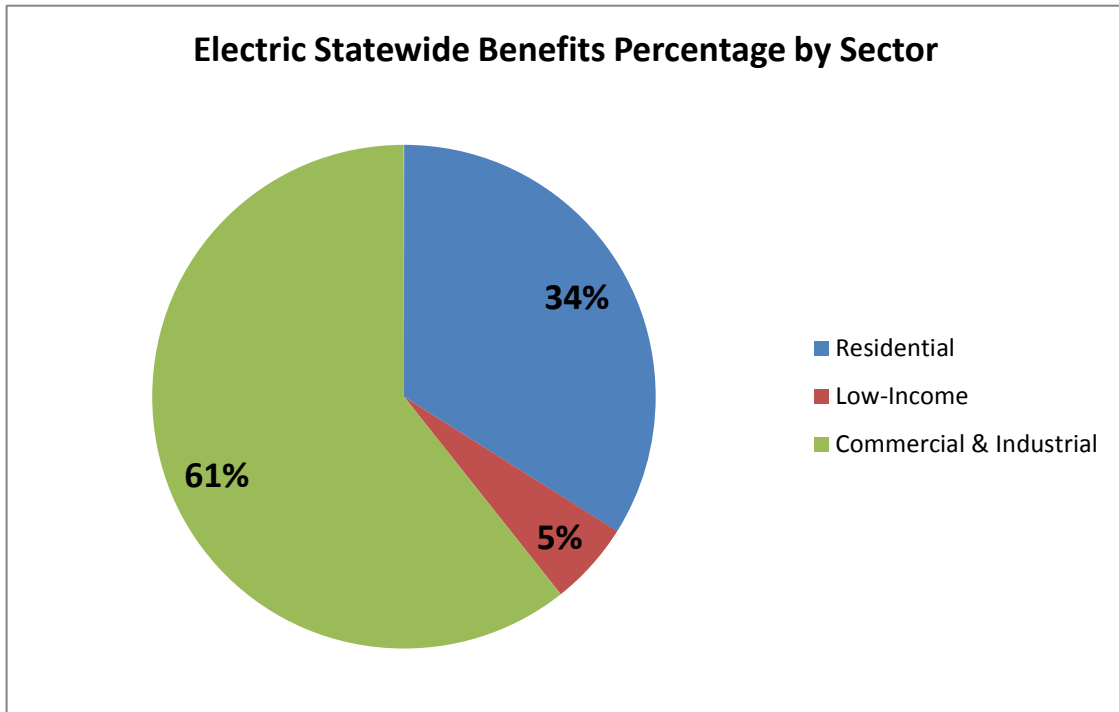
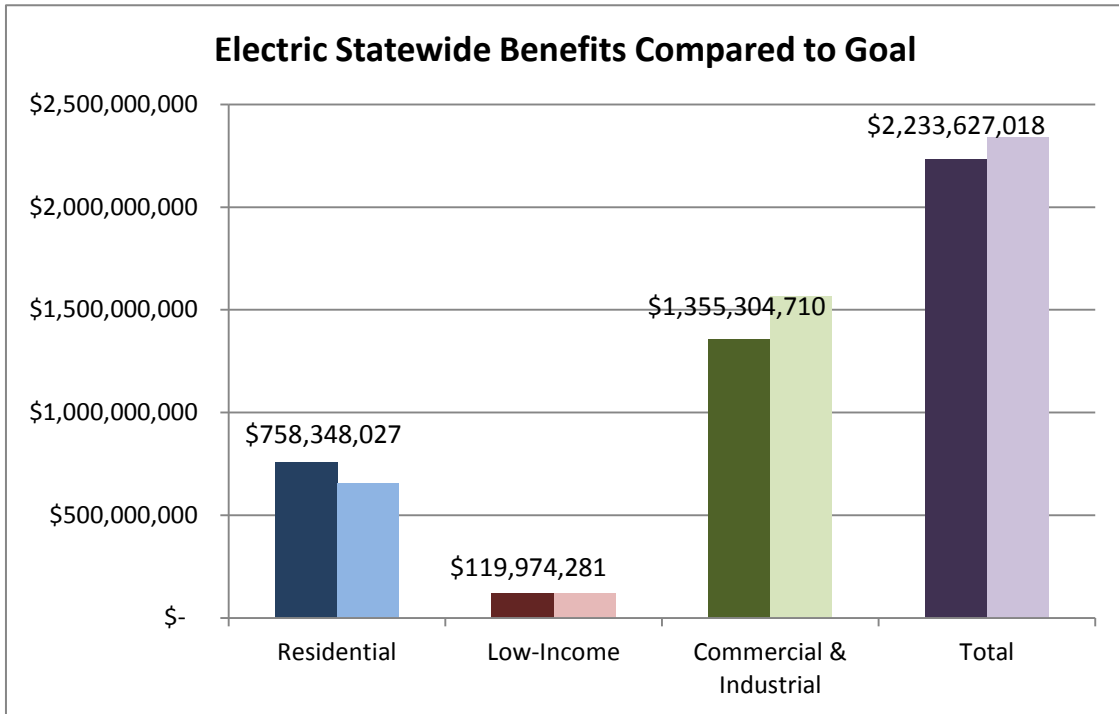
ANNUAL ELECTRIC STATEWIDE SAVINGS, Q4 2013



LIFETIME ELECTRIC STATEWIDE SAVINGS, Q4 2013



ELECTRIC STATEWIDE BENEFITS, Q4 2013



**STATEWIDE GAS BUDGETS SPEND
Q3 2013**

Row Labels	Total Sum of Program Planning and Administration	Total Sum of Marketing and Advertising	Total Sum of Participant Incentive	Total Sum of Sales, Technical Assistance & Training	Total Sum of Evaluation and Market Research	Total Sum of Total Spend
Gas						
Goal	\$ 8,767,375	\$ 7,892,645	\$ 117,973,681	\$ 26,811,287	\$ 7,035,427	\$ 168,480,416
Residential	\$ 4,190,464	\$ 4,284,177	\$ 57,990,210	\$ 14,777,100	\$ 3,543,929	\$ 84,785,881
1. Residential Whole House	\$ 2,354,491	\$ 1,444,166	\$ 37,775,161	\$ 12,522,085	\$ 2,359,334	\$ 56,455,236
2. Residential Products	\$ 1,001,762	\$ 1,945,855	\$ 19,110,340	\$ 1,934,989	\$ 1,068,255	\$ 25,061,201
3. Residential Hard-to-Measure	\$ 834,211	\$ 894,156	\$ 1,104,709	\$ 320,026	\$ 116,341	\$ 3,269,443
Low-Income	\$ 2,152,734	\$ 1,091,048	\$ 23,801,877	\$ 5,942,972	\$ 1,420,344	\$ 34,408,975
4. Low-Income Whole House	\$ 1,382,945	\$ 915,398	\$ 23,801,877	\$ 5,942,972	\$ 1,384,474	\$ 33,427,667
5. Low-Income Hard-to-Measure	\$ 769,789	\$ 175,650	\$ -	\$ -	\$ 35,870	\$ 981,309
Commercial & Industrial	\$ 2,424,177	\$ 2,517,420	\$ 36,181,594	\$ 6,091,214	\$ 2,071,154	\$ 49,285,560
6. C&I New Construction	\$ 790,544	\$ 942,076	\$ 13,280,523	\$ 1,747,114	\$ 719,245	\$ 17,479,501
7. C&I Retrofit	\$ 1,253,179	\$ 1,074,078	\$ 22,901,071	\$ 4,304,990	\$ 1,293,488	\$ 30,826,806
8. C&I Hard-to-Measure	\$ 380,455	\$ 501,267	\$ -	\$ 39,110	\$ 58,420	\$ 979,253
Q4	\$ 7,774,939	\$ 4,925,901	\$ 111,188,453	\$ 25,733,890	\$ 2,182,170	\$ 151,805,353
Residential	\$ 3,644,998	\$ 2,756,782	\$ 64,158,888	\$ 15,970,718	\$ 857,253	\$ 87,388,639
1. Residential Whole House	\$ 2,047,958	\$ 948,695	\$ 42,980,296	\$ 14,622,734	\$ 562,395	\$ 61,162,077
2. Residential Products	\$ 865,222	\$ 964,127	\$ 20,899,069	\$ 1,022,715	\$ 270,413	\$ 24,021,547
3. Residential Hard-to-Measure	\$ 731,818	\$ 843,961	\$ 279,524	\$ 325,269	\$ 24,445	\$ 2,205,016
Low-Income	\$ 1,574,728	\$ 158,695	\$ 27,030,731	\$ 5,565,386	\$ 254,029	\$ 34,583,568
4. Low-Income Whole House	\$ 1,267,642	\$ 68,815	\$ 27,030,731	\$ 5,501,310	\$ 252,429	\$ 34,120,927
5. Low-Income Hard-to-Measure	\$ 307,086	\$ 89,880	\$ -	\$ 64,076	\$ 1,599	\$ 462,641
Commercial & Industrial	\$ 2,555,213	\$ 2,010,424	\$ 19,998,833	\$ 4,197,787	\$ 1,070,888	\$ 29,833,145
6. C&I New Construction	\$ 721,452	\$ 856,626	\$ 7,861,766	\$ 1,251,977	\$ 359,427	\$ 11,051,248
7. C&I Retrofit	\$ 1,165,381	\$ 716,838	\$ 12,137,067	\$ 2,930,293	\$ 691,425	\$ 17,641,003
8. C&I Hard-to-Measure	\$ 668,380	\$ 436,961	\$ -	\$ 15,517	\$ 20,036	\$ 1,140,894

YTD AS PERCENTAGE OF GOAL	Program Planning and Administration	Marketing and Advertising	Participant Incentive	Sales, Technical Assistance & Training	Evaluation and Market Research	Total Spend
Gas	89%	62%	94%	96%	31%	90%
Residential	87%	64%	111%	108%	24%	103%
1. Residential Whole House	87%	66%	114%	117%	24%	108%
2. Residential Products	86%	50%	109%	53%	25%	96%
3. Residential Hard-to-Measure	88%	94%	25%	102%	21%	67%
Low-Income	73%	15%	114%	94%	18%	101%
4. Low-Income Whole House	92%	8%	114%	93%	18%	102%
5. Low-Income Hard-to-Measure	40%	51%	0%	0%	4%	47%
Commercial & Industrial	105%	80%	55%	69%	52%	61%
6. C&I New Construction	91%	91%	59%	72%	50%	63%
7. C&I Retrofit	93%	67%	53%	68%	53%	57%
8. C&I Hard-to-Measure	176%	87%	0%	40%	34%	117%

**STATEWIDE GAS SAVINGS
Q3 2013**

Row Labels	Total Sum of Participants	Total Sum of Annual Therms	Total Sum of Lifetime Therms
Gas			
Goal	549,188	22,662,498	303,524,964
Residential	537,690	10,290,782	116,613,304
1. Residential Whole House	509,451	8,138,116	76,083,031
1a. Residential New Construction	1,802	398,786	9,345,407
1b. Residential Multi-Family Retrofit	8,344	543,185	9,230,027
1c. Residential Home Energy Services	33,622	2,756,611	53,068,063
1d. Residential Behavior/Feedback	465,683	4,439,534	4,439,534
2. Residential Products	28,238	2,152,666	40,530,273
2a. Residential Heating & Water Heating	28,238	2,152,666	40,530,273
Low-Income	6,645	1,397,743	27,514,929
4. Low-Income Whole House	6,645	1,397,743	27,514,929
4a. Low-Income Single Family Retrofit	2,445	814,531	16,572,033
4b. Low-Income Multi-Family Retrofit	4,200	583,212	10,942,896
Commercial & Industrial	4,854	10,973,973	159,396,731
6. C&I New Construction	1,599	3,726,651	70,889,370
6a. C&I New Construction	1,599	3,726,651	70,889,370
7. C&I Retrofit	3,255	7,247,322	88,507,361
7a. C&I Retrofit	2,170	6,944,996	85,603,338
7b. C&I Direct Install	1,085	302,326	2,904,023
Q4	572,952	23,924,073	307,636,322
Residential	552,782	13,173,062	145,906,419
1. Residential Whole House	525,043	10,315,280	97,094,135
1a. Residential New Construction	2,893	675,217	15,719,310
1b. Residential Multi-Family Retrofit	9,507	595,948	9,390,225
1c. Residential Home Energy Services	39,833	3,698,672	66,639,157
1d. Residential Behavior/Feedback	472,810	5,345,444	5,345,444
2. Residential Products	27,739	2,857,781	48,812,283
2a. Residential Heating & Water Heating	27,739	2,857,781	48,812,283
Low-Income	9,993	2,285,548	44,133,838
4. Low-Income Whole House	9,993	2,285,548	44,133,838
4a. Low-Income Single Family Retrofit	3,139	769,805	15,415,609
4b. Low-Income Multi-Family Retrofit	6,854	1,515,744	28,718,228
Commercial & Industrial	10,177	8,465,463	117,596,065
6. C&I New Construction	1,083	2,610,202	53,187,314
6a. C&I New Construction	1,083	2,610,202	53,187,314
7. C&I Retrofit	9,094	5,855,261	64,408,751
7a. C&I Retrofit	8,126	5,620,465	62,453,290
7b. C&I Direct Install	968	234,796	1,955,461

YTD AS PERCENTAGE OF GOAL	Participants	Annual Therms	Lifetime Therms
Gas	104%	106%	101%
Residential	103%	128%	125%
1. Residential Whole House	103%	127%	128%
1a. Residential New Construction	161%	169%	168%
1b. Residential Multi-Family Retrofit	114%	110%	102%
1c. Residential Home Energy Services	118%	134%	126%
1d. Residential Behavior/Feedback	102%	120%	120%
2. Residential Products	98%	133%	120%
2a. Residential Heating & Water Heating	98%	133%	120%
Low-Income	150%	164%	160%
4. Low-Income Whole House	150%	164%	160%
4a. Low-Income Single Family Retrofit	128%	95%	93%
4b. Low-Income Multi-Family Retrofit	163%	260%	262%
Commercial & Industrial	210%	77%	74%
6. C&I New Construction	68%	70%	75%
6a. C&I New Construction	68%	70%	75%
7. C&I Retrofit	279%	81%	73%
7a. C&I Retrofit	374%	81%	73%
7b. C&I Direct Install	89%	78%	67%

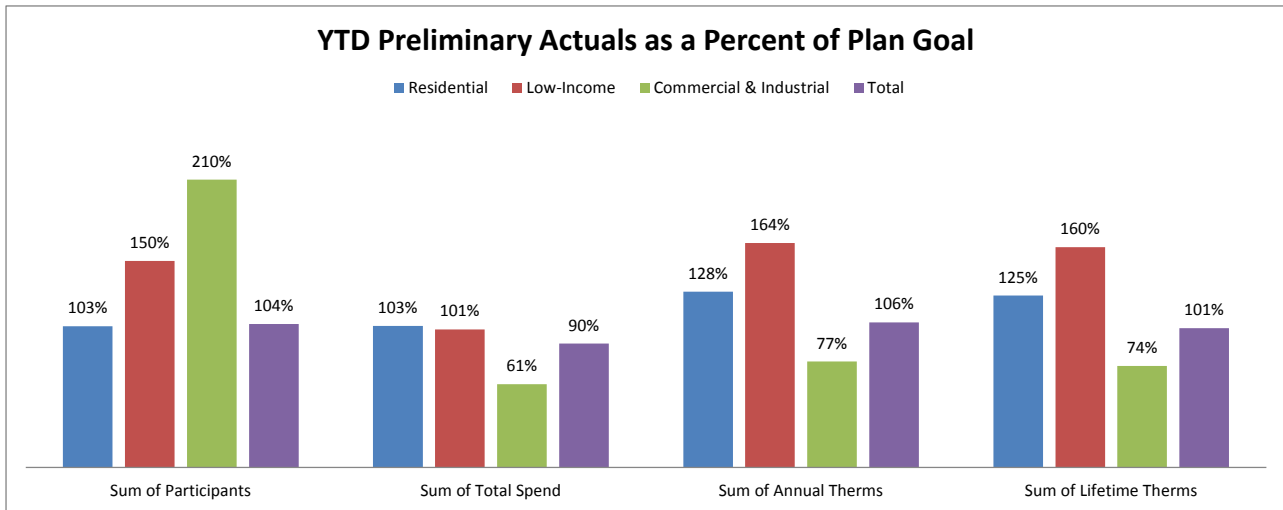
**STATEWIDE GAS BENEFITS
Q3 2013**

	Total Sum of Total Gas Benefits	Total Sum of Total Electric Benefits	Total Sum of Total Other Resource Benefits	Total Sum of Total Non Resource Benefits	Total Sum of Total Benefits
Gas					
Goal	\$ 271,871,715	\$ 24,180,142	\$ 11,270,370	\$ 129,737,675	\$ 437,059,901
Residential	\$ 106,641,899	\$ 19,872,056	\$ 4,002,582	\$ 83,103,785	\$ 213,620,322
1. Residential Whole House	\$ 70,885,790	\$ 18,235,624	\$ 4,002,582	\$ 43,034,844	\$ 136,158,840
1a. Residential New Construction	\$ 8,771,692	\$ 1,970,615	\$ 64,336	\$ 8,279,464	\$ 19,086,107
1b. Residential Multi-Family Retrofit	\$ 8,525,981	\$ 284	\$ 2,068,453	\$ 9,142,330	\$ 19,737,047
1c. Residential Home Energy Services	\$ 49,883,226	\$ 16,264,725	\$ 1,869,794	\$ 25,613,050	\$ 93,630,794
1d. Residential Behavior/Feedback	\$ 3,704,891	\$ -	\$ -	\$ -	\$ 3,704,891
2. Residential Products	\$ 35,756,109	\$ 1,636,432	\$ -	\$ 40,068,942	\$ 77,461,482
2a. Residential Heating & Water Heating	\$ 35,756,109	\$ 1,636,432	\$ -	\$ 40,068,942	\$ 77,461,482
Low-Income	\$ 25,641,567	\$ 4,187,652	\$ 521,393	\$ 24,881,923	\$ 55,232,534
4. Low-Income Whole House	\$ 25,641,567	\$ 4,187,652	\$ 521,393	\$ 24,881,923	\$ 55,232,534
4a. Low-Income Single Family Retrofit	\$ 15,503,806	\$ 4,186,721	\$ 660	\$ 12,873,449	\$ 32,564,636
4b. Low-Income Multi-Family Retrofit	\$ 10,137,761	\$ 931	\$ 520,732	\$ 12,008,473	\$ 22,667,898
Commercial & Industrial	\$ 139,588,250	\$ 120,434	\$ 6,746,394	\$ 21,751,967	\$ 168,207,045
6. C&I New Construction	\$ 63,705,688	\$ 117,641	\$ 451,273	\$ -	\$ 64,274,602
6a. C&I New Construction	\$ 63,705,688	\$ 117,641	\$ 451,273	\$ -	\$ 64,274,602
7. C&I Retrofit	\$ 75,882,562	\$ 2,793	\$ 6,295,121	\$ 21,751,967	\$ 103,932,443
7a. C&I Retrofit	\$ 73,493,345	\$ 2,793	\$ 4,175,644	\$ 20,253,251	\$ 97,925,033
7b. C&I Direct Install	\$ 2,389,216	\$ -	\$ 2,119,477	\$ 1,498,716	\$ 6,007,410
Q4	\$ 277,790,464	\$ 13,589,934	\$ 19,672,961	\$ 127,385,469	\$ 438,438,829
Residential	\$ 134,300,902	\$ 11,404,773	\$ 4,377,210	\$ 79,632,504	\$ 229,715,388
1. Residential Whole House	\$ 90,502,800	\$ 10,455,267	\$ 4,377,210	\$ 59,636,280	\$ 164,971,557
1a. Residential New Construction	\$ 14,720,753	\$ 2,186,027	\$ 58,408	\$ 12,129,041	\$ 29,094,229
1b. Residential Multi-Family Retrofit	\$ 8,647,484	\$ 2,152,045	\$ 1,110,887	\$ 16,085,742	\$ 27,996,158
1c. Residential Home Energy Services	\$ 62,671,965	\$ 6,117,196	\$ 3,207,914	\$ 31,421,497	\$ 103,418,572
1d. Residential Behavior/Feedback	\$ 4,462,598	\$ -	\$ -	\$ -	\$ 4,462,598
2. Residential Products	\$ 43,798,102	\$ 949,506	\$ -	\$ 19,996,224	\$ 64,743,832
2a. Residential Heating & Water Heating	\$ 43,798,102	\$ 949,506	\$ -	\$ 19,996,224	\$ 64,743,832
Low-Income	\$ 39,841,880	\$ 2,123,042	\$ 1,367,182	\$ 25,164,427	\$ 68,496,532
4. Low-Income Whole House	\$ 39,841,880	\$ 2,123,042	\$ 1,367,182	\$ 25,164,427	\$ 68,496,532
4a. Low-Income Single Family Retrofit	\$ 14,398,395	\$ 2,123,042	\$ -	\$ 12,311,069	\$ 28,832,505
4b. Low-Income Multi-Family Retrofit	\$ 25,443,486	\$ -	\$ 1,367,182	\$ 12,853,358	\$ 39,664,027
Commercial & Industrial	\$ 103,647,681	\$ 62,119	\$ 13,928,570	\$ 22,588,538	\$ 140,226,909
6. C&I New Construction	\$ 47,913,558	\$ 42,688	\$ 1,046,154	\$ -	\$ 49,002,400
6a. C&I New Construction	\$ 47,913,558	\$ 42,688	\$ 1,046,154	\$ -	\$ 49,002,400
7. C&I Retrofit	\$ 55,734,123	\$ 19,431	\$ 12,882,416	\$ 22,588,538	\$ 91,224,508
7a. C&I Retrofit	\$ 54,164,800	\$ 19,431	\$ 10,560,674	\$ 22,068,794	\$ 86,813,699
7b. C&I Direct Install	\$ 1,569,324	\$ -	\$ 2,321,742	\$ 519,744	\$ 4,410,810

YTD AS PERCENTAGE OF GOAL	Total Sum of Total Gas Benefits	Total Sum of Total Electric Benefits	Total Sum of Total Other Resource	Total Sum of Total Non Resource	Total Sum of Total Benefits
Gas	102%	56%	175%	98%	100%
Residential	126%	57%	109%	96%	108%
1. Residential Whole House	128%	57%	109%	139%	121%
1a. Residential New Construction	168%	111%	91%	146%	152%
1b. Residential Multi-Family Retrofit	101%	757256%	54%	176%	142%
1c. Residential Home Energy Services	126%	38%	172%	123%	110%
1d. Residential Behavior/Feedback	120%	0%	0%	0%	120%
2. Residential Products	122%	58%	0%	50%	84%
2a. Residential Heating & Water Heating	122%	58%	0%	50%	84%
Low-Income	155%	51%	262%	101%	124%
4. Low-Income Whole House	155%	51%	262%	101%	124%
4a. Low-Income Single Family Retrofit	93%	51%	0%	96%	89%
4b. Low-Income Multi-Family Retrofit	251%	0%	263%	107%	175%
Commercial & Industrial	74%	52%	206%	104%	83%
6. C&I New Construction	75%	36%	232%	0%	76%
6a. C&I New Construction	75%	36%	232%	0%	76%
7. C&I Retrofit	73%	696%	205%	104%	88%
7a. C&I Retrofit	74%	696%	253%	109%	89%
7b. C&I Direct Install	66%	0%	110%	35%	73%

**STATEWIDE GAS SUMMARY
Q3 2013**

Row Labels	Values			
	Sum of Participants	Sum of Total Spend	Sum of Annual Therms	Sum of Lifetime Therms
Gas				
Goal	549,188	\$ 168,480,416	22,662,498	303,524,964
Residential	537,690	\$ 84,785,881	10,290,782	116,613,304
Low-Income	6,645	\$ 34,408,975	1,397,743	27,514,929
Commercial & Industrial	4,854	\$ 49,285,560	10,973,973	159,396,731
Q4	572,952	151,805,353	23,924,073	307,636,322
Residential	552,782	87,388,639	13,173,062	145,906,419
Low-Income	9,993	34,583,568	2,285,548	44,133,838
Commercial & Industrial	10,177	29,833,145	8,465,463	117,596,065
YTD as % of goal	104%	90%	106%	101%
Residential	103%	103%	128%	125%
Low-Income	150%	101%	164%	160%
Commercial & Industrial	210%	61%	77%	74%

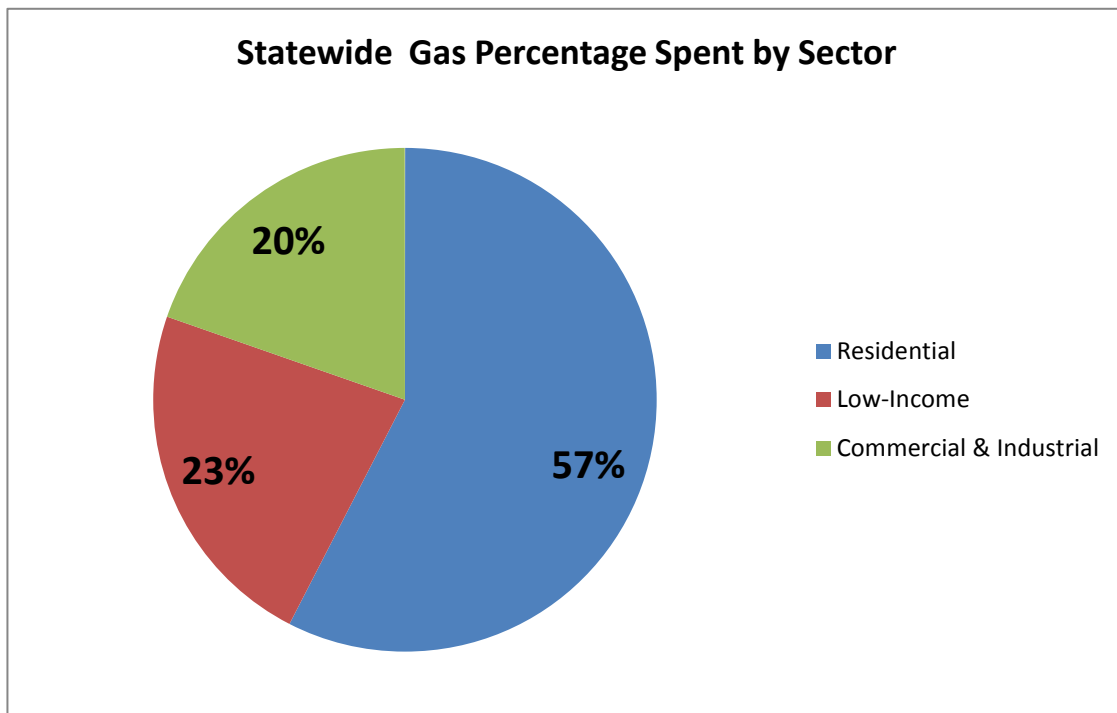
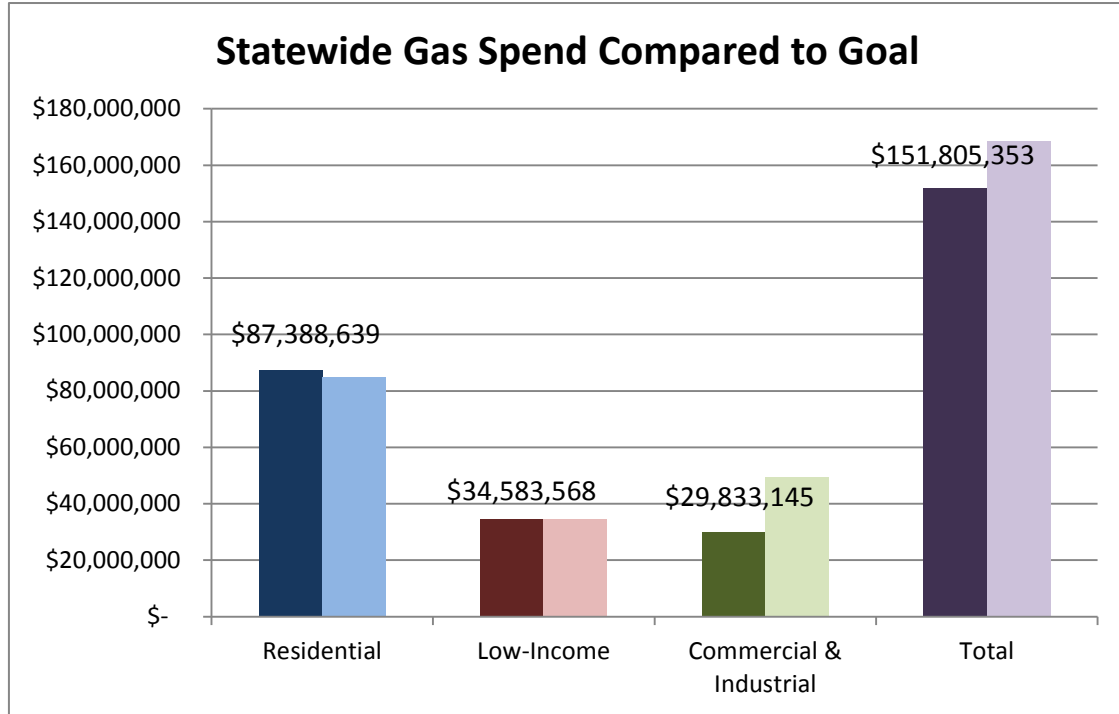


STATEWIDE GAS SUMMARY

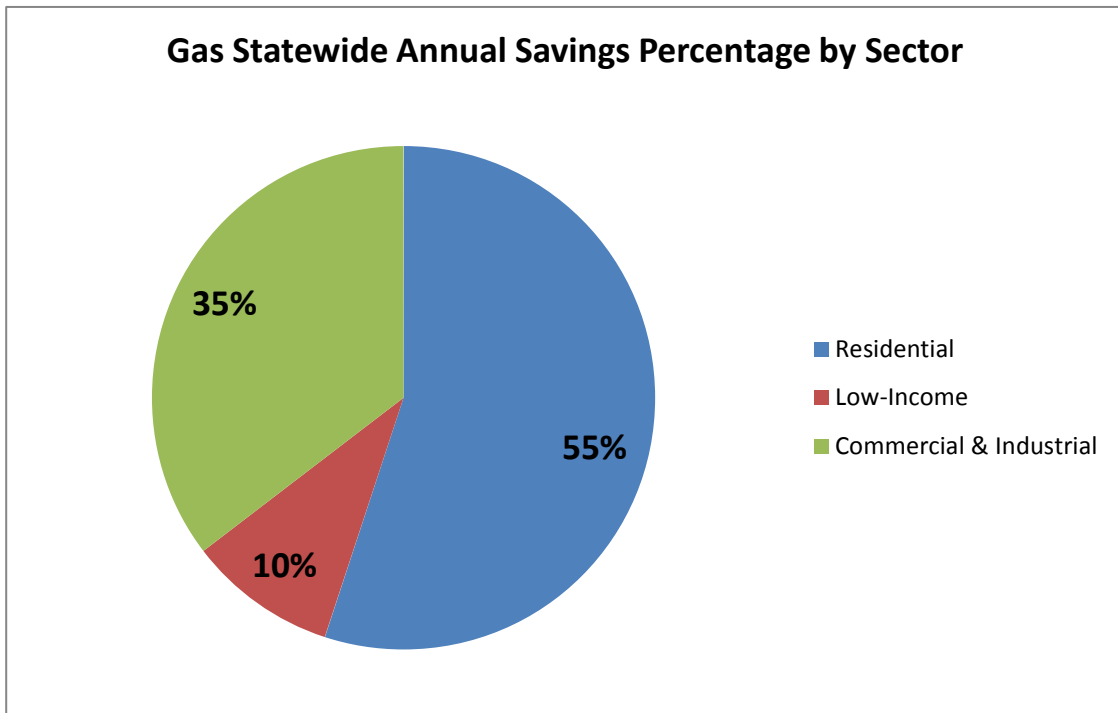
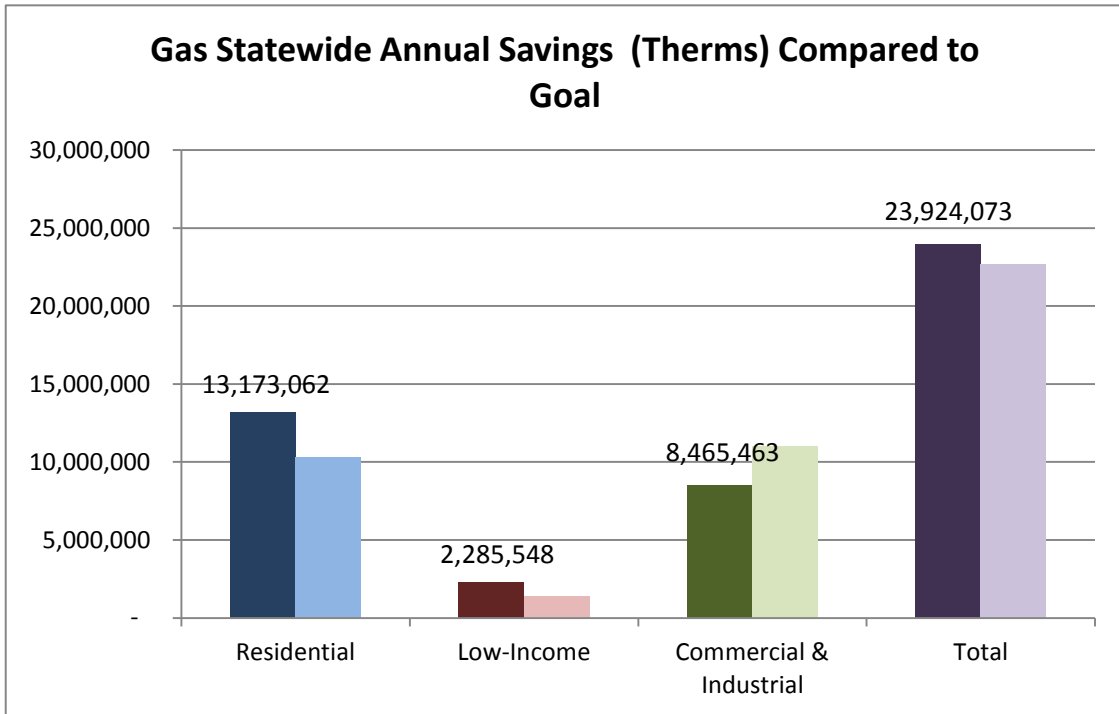
Q3 2013

Sum of Lifetime Therms Row Labels	Column Labels National Grid	BERKSHIRE	UNITIL	CMA	NEG
Gas					
Goal	151,749,190	8,039,899	3,370,763	61,856,280	5,434,873
Residential	60,220,434	2,687,594	646,043	29,121,269	2,238,055
1. Residential Whole House	39,847,612	1,416,011	420,356	17,550,530	1,145,335
1a. Residential New Construction	5,211,866	132,100	73,653	1,172,270	138,998
1b. Residential Multi-Family Retrofit	4,890,290	43,358	151,519	1,700,014	99,596
1c. Residential Home Energy Services	26,503,766	1,192,953	195,184	14,318,247	815,742
1d. Residential Behavior/Feedback	3,241,690	47,600	-	360,000	91,000
2. Residential Products	20,372,822	1,271,583	225,687	11,570,739	1,092,720
2a. Residential Heating & Water Heating	20,372,822	1,271,583	225,687	11,570,739	1,092,720
3. Residential Hard-to-Measure					
Low-Income	14,685,521	902,761	402,392	5,347,851	764,729
4. Low-Income Whole House	14,685,521	902,761	402,392	5,347,851	764,729
4a. Low-Income Single Family Retrofit	10,514,188	525,840	236,955	2,540,425	531,350
4b. Low-Income Multi-Family Retrofit	4,171,333	376,921	165,437	2,807,426	233,379
5. Low-Income Hard-to-Measure					
Commercial & Industrial	76,843,236	4,449,544	2,322,327	27,387,160	2,432,089
6. C&I New Construction	31,381,925	1,726,271	735,294	12,107,371	421,203
6a. C&I New Construction	31,381,925	1,726,271	735,294	12,107,371	421,203
7. C&I Retrofit	45,461,310	2,723,272	1,587,033	15,279,789	2,010,886
7a. C&I Retrofit	44,351,039	2,666,363	1,423,771	14,892,314	1,959,240
7b. C&I Direct Install	1,110,271	56,910	163,262	387,475	51,646
8. C&I Hard-to-Measure					
Q4	156,044,477	9,831,107	2,612,615	52,227,821	4,324,735
Residential	87,770,527	3,713,646	1,115,618	22,354,421	1,638,715
1. Residential Whole House	56,933,057	2,147,938	742,404	14,242,729	819,606
1a. Residential New Construction	9,441,375	146,895	85,900	2,264,669	26,608
1b. Residential Multi-Family Retrofit	5,562,980	50,632	8,999	1,265,597	39,932
1c. Residential Home Energy Services	37,280,601	1,950,411	647,505	10,712,463	753,066
1d. Residential Behavior/Feedback	4,648,101	-	-	-	
2. Residential Products	30,837,470	1,565,708	373,215	8,111,692	819,109
2a. Residential Heating & Water Heating	30,837,470	1,565,708	373,215	8,111,692	819,109
3. Residential Hard-to-Measure	-				
Low-Income	27,487,831	1,460,729	314,360	7,067,128	747,673
4. Low-Income Whole House	27,487,831	1,460,729	314,360	7,067,128	747,673
4a. Low-Income Single Family Retrofit	8,817,580	510,214	110,850	2,927,020	243,991
4b. Low-Income Multi-Family Retrofit	18,670,251	950,515	203,510	4,140,108	503,682

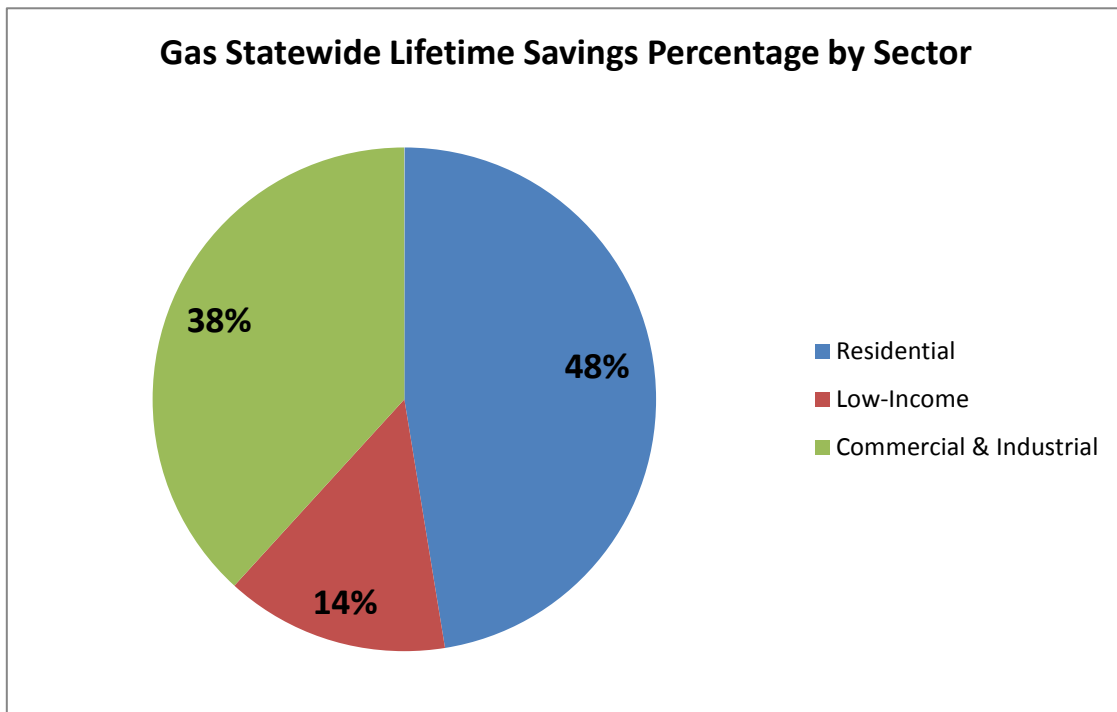
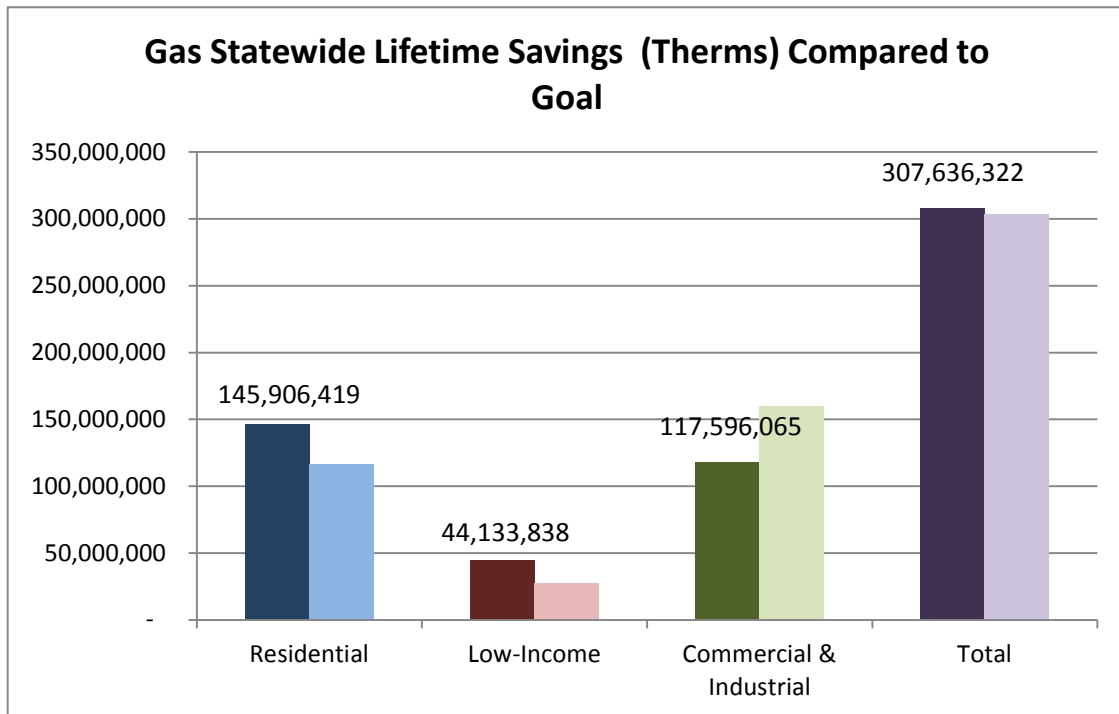
GAS STATEWIDE BUDGETS, Q4 2013



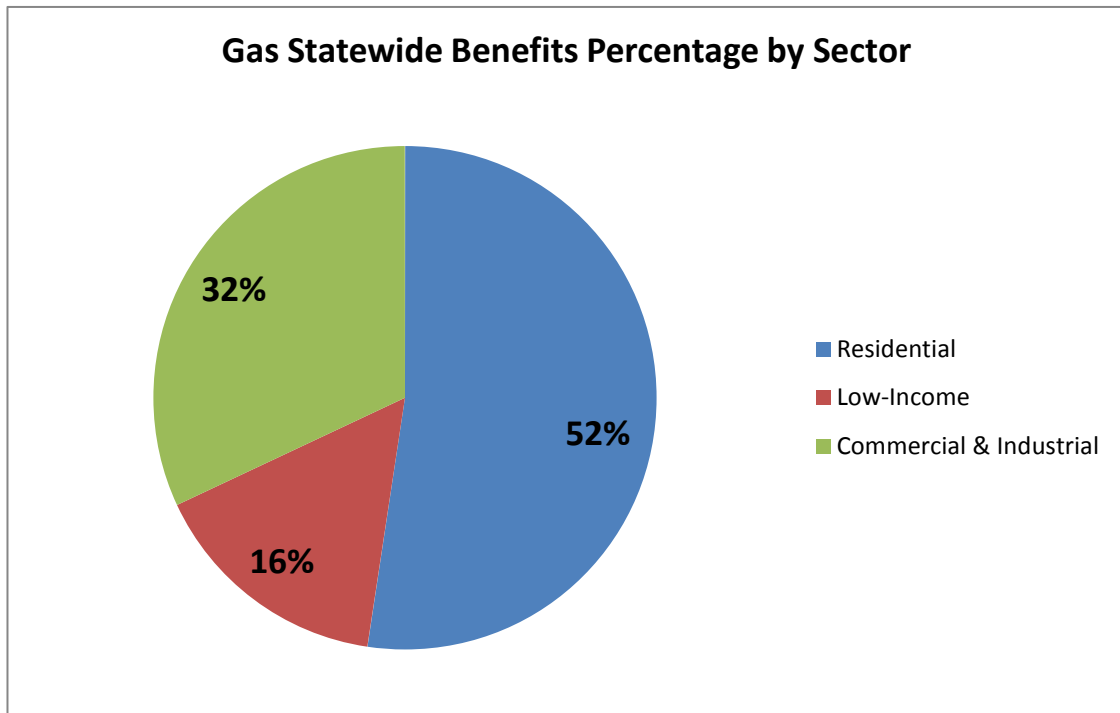
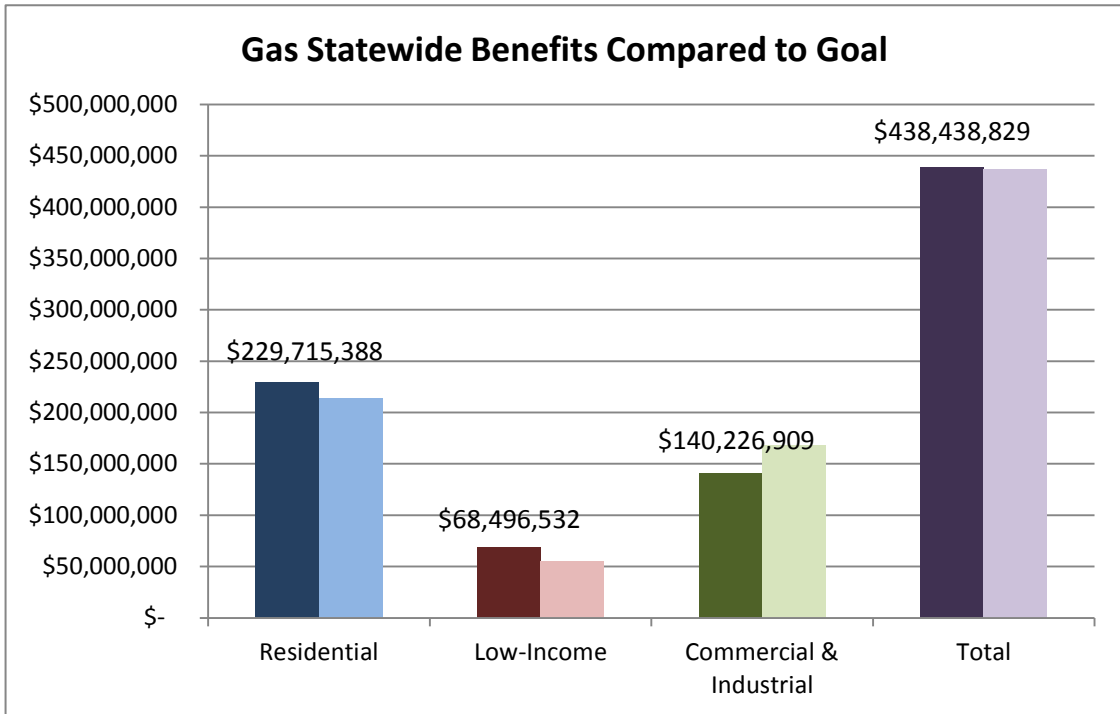
ANNUAL GAS STATEWIDE SAVINGS, Q4 2013



LIFETIME GAS STATEWIDE SAVINGS, Q4 2013

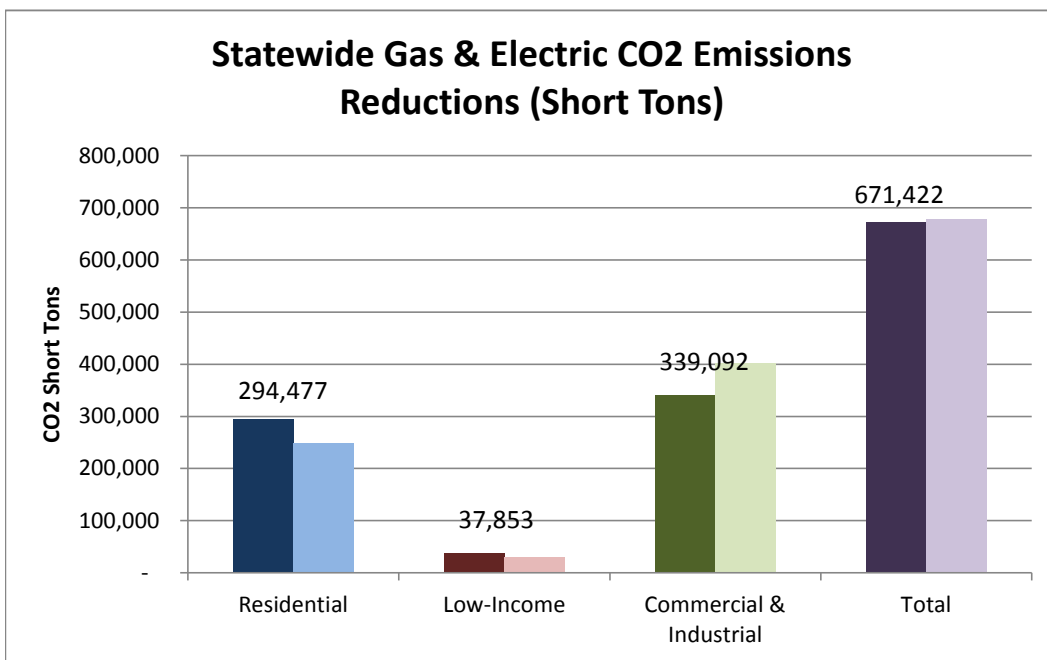


GAS STATEWIDE BENEFITS, Q4 2013



STATEWIDE GHG EMISSIONS REDUCTIONS
Q2 2013

Row Labels	Sum of Energy (annual MWh)	Sum of Annual Therms	Sum of Annual Oil (MMBTU)	Sum of NOX	Sum of SO2	Sum of CO2
Goal	1,199,015	12,937,043	335,344	288	756	677,010
Residential	332,807	10,458,061	331,052	80	210	247,291
Low-Income	29,584	1,460,981	74,981	7	19	28,767
Commercial & Industrial	836,624	1,018,001	(70,688)	201	528	400,952
Q4	1,072,438	20,031,813	503,040	258	677	671,422
Residential	376,625	13,438,361	439,669	90	238	294,477
Low-Income	33,774	2,298,433	102,006	8	21	37,853
Commercial & Industrial	662,039	4,295,019	(38,635)	159	418	339,092



Please note that the PAs are working with DEP to try to determine the best method for properly and precisely capturing the full impact of energy efficiency measures on GHG emissions. As part of this process, the PAs have included this table on Emissions Reductions, based on continuing discussions with the DEP, and using new factors proposed by DEP, which are based on annual gas, oil, and electric savings. The PAs look forward to discussing these proposed factors with DEP and are committed to ensuring that the full impact of energy efficiency measures on GHG emissions are captured.

ATTACHMENT B

ADDITIONAL EM&V UPDATE CHARTS

Study Name	Research Area	Study Type	Study Manager	Overall Evaluation Goal (Project Summary/Purpose)	Expected Outcomes	Current Notes
Impact Evaluation of the Upstream Lighting Program (P17)	C&I	Impact	Bill Blake	Impact evaluation of the 2012 Bright Opportunities program	The study will provide updated assumptions based on MA-specific research for the following: Application of purchased lamps by facility/space type; Hours of use; baseline replaced lamp; and gross savings realization rates.	
Mid-Sized Customer Assessment (P19)	C&I	Other	Wendy Todd	Assess whether current program delivery methods are adequately serving the needs of "mid-sized" customers	This study will produce a profile of mid-sized customers across the PAs as well as assess current levels of EE activity/awareness among the mid-sized population and determine if there are specific needs of the population that are not being met by current program offerings and/or delivery methods.	This study, along with several others, is leveraging a single C&I customer general population survey effort.
Impact Evaluation of 2011-2012 CHP Installations (P20)	C&I	Impact	Erik Mellen	An impact evaluation of 2011-12 CHP installations	The study will provide realization rates for electricity (kWh); net energy (therms) and coincident peak demand.	Builds on impact evaluation of 2010 CHP installations and will examine a census of all CHP systems finalized in 2010-2012.
Existing Buildings Market Characterization (P21)	C&I	Other	Wendy Todd	Assess the current market for EE in existing buildings	This study will provide a comprehensive characterization of the C&I market including physical characteristics of buildings, building owner/tenant relationships, inventory of the type of energy equipment by end use, business practices that affect energy use and purchase decisions and recent energy related improvements or renovations.	This study, along with several others, is leveraging a single C&I customer general population survey effort.
Lighting Controls Impact Evaluation (P22)	C&I	Impact	Bill Blake	Determine why program savings for retrofit lighting controls dropped off significantly in 2010 and 2011	The study will provide an assessment of the type of impact evaluation to apply for the lighting controls program; will make recommendations for changes to future lighting controls programs in light of any new market conditions; and will make recommendations for adjustments to current savings estimation methods.	

Study Name	Research Area	Study Type	Study Manager	Overall Evaluation Goal (Project Summary/Purpose)	Expected Outcomes	Current Notes
Whole System Approach (P23)	C&I	Other	Wendy Todd	Assess whole system programs and initiatives offered by other utilities and states.	The study will examine 3 existing program offerings to obtain an understanding of the key program features and best practices for attaining deeper savings from whole system approaches. The study will also attempt to determine the feasibility of a whole system approach for existing buildings in MA.	3 programs are: Pay for Performance (NJ); Heating Optimization (Xcel Energy); Custom Retrofit (ConEdison). Early results were presented at the 2013 IEPEC conference in Chicago.
LED Market Effects Study (P27)	C&I	Other	Bill Blake	Baseline Market Effects Study of LEDs	This study will establish the baseline penetration of LEDs in both the Residential and Commercial markets.	Joint study between Residential and C&I research areas Lays the groundwork for completing a Market Effects Assessment in 2-3 years.
Boiler Market Characterization (P38)	C&I	Other	Mark Sevier	Market Characterization of the gas boiler market	This study will characterize the current boiler market including total size and EE share as well as determine the market share currently influenced by PA programs.	
Impact Evaluation of 2012 Custom HVAC Installations (P29)	C&I	Impact	Erik Mellen	Impact evaluation of 2012 Custom HVAC Installations	This study will provide realization rates for custom HVAC installations.	In order to obtain field measurements during appropriate seasons, this study will take place over a 2 year period with results expected in Q2 2015.
C&I Code Compliance Follow-up (P24)	C&I	Other	Wendy Todd	Mine the data collected for the 2012 Baseline Code Compliance Study to determine if there is anything to learn about the baseline for program measures	Where possible, this study will verify levels of energy code compliance rates in current construction projects and will support program development efforts for targeted new construction efforts.	
Impact Evaluation of 2012 Prescriptive Non-Lighting Installations (P30)	C&I	Impact	Whitney Brougher	Impact evaluation of 2012 Prescriptive Non-Lighting Measures	This study will provide revised savings estimates for prescriptive non-lighting measures.	The measures studies will be determined during the scoping process. A number of factors will be considered in making this determination, including but not limited to percent of overall savings and evaluability. More detail will be provided in a later summary.
2012 C&I Customer Profile (P31)	C&I	Other	Whitney Brougher	Characterization of the C&I market using PA billing and project tracking data	This study will provide a profile of the C&I market in MA for the second year in a row.	The first year of the study linked PA billing data to PA tracking data and attempted to identify business types for all C&I customers before analyzing program participation across size categories, fuels and PAs. The exact analyses to be conducted in the second year will be determined during project scoping. More detail will be provided in a later summary.

Study Name	Research Area	Study Type	Study Manager	Overall Evaluation Goal (Project Summary/Purpose)	Expected Outcomes	Current Notes
Learning From Successful Projects (P32)	C&I	Other	Erik Mellen	This study will examine the practices and/or characteristics that make a project successful.	TBD	This study is still in the scoping phase. More detail will be provided in a later summary.
How PA Differences Affect Program Outcomes (P33)	C&I	Other	Wendy Todd	The goal of this research is to identify the factors that lead to differences in the depth and cost of savings among the PAs.	TBD	This study is still in the scoping phase. More detail will be provided in a later summary.
Commercial Real Estate Market Assessment (P34)	C&I	Other	Wendy Todd	To gain an understanding of the complex relationship between building owners, property managers and tenants and identify specific program offerings and points in the leasing process that offer opportunities to capture energy efficiency savings.	The study will identify the key building features and services that tenants consider when selecting a property; will identify how building owners and property managers market their properties; will determine the type and role of financial limitations and how they affect EE investment; and identify the leasing process and the role EE plays in it.	When/If this study moves forward it will be coordinated with the statewide commercial real estate working group so that there is no duplication of effort and that research is being coordinated and leveraged where feasible.
Roof Top Unit Controller Market Effects (P35)	C&I	Other	Gail Azulay	Baseline Market Effects Study of Roof Top Unit Controllers	This study will establish the baseline penetration of RTU controllers in the C&I market.	This study is still in the scoping phase. More detail will be provided in a later summary.
Supply Side Population Characterization (P36)	C&I	Other	Wendy Todd	Market Characterization of supply side populations	This study will provide an understanding of participation trends and develop improved sample frames for specific supply side populations (e.g. Commercial HVAC).	This study is still in the scoping phase. More detail will be provided in a later summary.
Direct Install Process Evaluation (P37)	C&I	Process	Dave Weber	Process Evaluation of the Direct Install program	TBD	This study is still in the scoping phase. More detail will be provided in a later summary.
Impact Evaluation of 2012 Prescriptive Gas Installations (P39)	C&I	Impact	Tony Larson	Impact evaluation of 2012 Prescriptive Gas Measures	This study will provide revised savings estimates for prescriptive gas measures.	The measures studies will be determined during the scoping process. A number of factors will be considered in making this determination, including but not limited to percent of overall savings and evaluability. More detail will be provided in a later
EISA T-12 Phase Out Research (P40)	C&I	Other	Erik Mellen	The overall objective of this study is to research whether or not lighting manufacturers are still producing T-12 lamps despite the phase-out initiated by the EPACT and EISA legislation.	TBD	This study will leverage existing research efforts to conserve evaluation budget and reduce respondent fatigue.
C&I Market Effects Study	C&I	Other	TBD	The overall objective of this study is to capture the net effects over time of Massachusetts' programs to promote a technology to be determined by the PAs.	TBD	

Study Name	Research Area	Study Type	Study Manager	Overall Evaluation Goal (Project Summary/Purpose)	Expected Outcomes	Current Notes
Impact Evaluation of 2013 Custom Electric Installations	C&I	Impact	TBD	It is expected that a new Custom electric study will be performed on the 2013 program year, and will include any or all of CDA, Process and Compressed Air.	TBD	
Impact Evaluation of 2013 Prescriptive Electric Installations	C&I	Impact	TBD	The objective of this impact evaluation is to provide verification or re-estimation of electric energy and demand savings estimates for a subset of Prescriptive electric projects.	TBD	
Impact Evaluation of 2013 Custom Gas Installations	C&I	Impact	TBD	In 2014, the evaluation team plans to begin scoping an impact evaluation of 2013 measures, which will include all PAs. This impact evaluation will also include a desk review task to further test this approach for helping to decide when to evaluate these programs.	TBD	
Regional Lighting Logger Study	Resi	Impact	Matt Nelson	Coordinated regional operating hours of use study with Connecticut, Rhode Island, and NYSERDA	The study will provide hours of use of both efficient and non-efficient light bulbs by room and socket type.	Draft report submitted
Net Impacts	Resi	Impact	Mark Sevier	Assess the impacts the RNC program has had on the marketplace over the past seven years	The study will provide estimates of free-ridership and spillover.	Draft report submitted
LI Lighting HOU and Thermostat Study	Resi	Impact	Riley Hastings	Operating hours of use study and secondary heat analysis	The study will provide hours of use of both efficient and non-efficient light bulbs by room and socket type in LI homes.	Delaying the release of this report to align with Regional Lighting Logger study to ensure consistency in methodology.
Lighting Market Assessment	Resi	Market Characterization	Matt Nelson	Provide ongoing monitoring of the MA lighting market.	This study will provide an understanding of the current and developing state of the residential lighting market especially as it relates to EISA, including CFL/LED saturation and sales/market share, availability and pricing of efficient lighting, and supplier and consumer attitudes and expectations.	
Lighting Saturation Stagnation Assessment	Resi	Market Characterization	Wendy Todd	Assess possible reasons for the current plateau in CFL saturation as well as to determine ways to accelerate LED adoption.	This study will provide a better understanding of and find ways to overcome stagnation in efficient lighting saturation.	

Study Name	Research Area	Study Type	Study Manager	Overall Evaluation Goal (Project Summary/Purpose)	Expected Outcomes	Current Notes
Market Lift Assessment	Resi	Impact Evaluation	Matt Nelson	Assess the planning and implementation of the Market Lift effort and develop a net-to-gross (NTG) estimate of that effort.	The study will assess whether the Market Lift effort was designed and implemented in a way that ensured clear attribution to the effort and develop a NTG estimate for the effort.	
Multi-Stage Lighting Net-to-Gross Study	Resi	Impact Evaluation	Matt Nelson	Estimate net-to-gross (NTG) ratios for key product types incented in the Residential Lighting Program and to assess the associated strategic implications.	NTG Estimates	
Appliance Program Evaluation	Resi	Impact Evaluation	Wendy Todd	This study will explore changes to the way the Appliance initiative is currently delivered, including new marketing strategies or retail partnerships, updated incentives, and other cost-effective options.	TBD	
Incremental Cost Research	Resi	Impact	Gail Azulay	Provide updated incremental cost data for use in cost-effectiveness screening and setting of incentive levels.	The study will provide up-to-date incremental cost data for lighting, appliance and HVAC measures.	
HEHE Impact Evaluation	Resi	Impact	Riley Hastings	Determine gross savings for the HEHE program for a variety of space heating measures.	Gross savings from high efficiency natural gas furnaces and boilers in the HEHE program.	Long-term meters installed
Ductless Mini-split Heat Pump Assessment	Resi	Impact	Matt Nelson	Determine participant intent in regard to installing ductless mini-split heat pumps (DMSHPs) through the COOL SMART program	Results will support an impact evaluation of DMSHPs and other cooling measures, beginning in Q2 2014	
Advanced Power Strips Evaluation	Resi	Impact Evaluation	Matt Nelson	The goal of this study is to identify alternative program designs that will generate higher participation and savings per participant.	Recommendations for alternative program designs that will generate higher participation and savings per participant.	
HES Program Delivery Assessment	Resi	Impact and Process Evaluation	Mike Goldman	The study will focus on determining accurate conversion rates and other key performance metrics for HES overall, as well as for LVs and HPCs specifically. The study will also explore opportunities for greater and deeper savings for each program.	Conversion rates and other key performance metrics for HES overall, as well as for LVs and HPCs specifically and recommendations for achieving greater and deeper savings.	

Study Name	Research Area	Study Type	Study Manager	Overall Evaluation Goal (Project Summary/Purpose)	Expected Outcomes	Current Notes
HEAT Loan Process Analysis	Resi	Impact	Mike Goldman	The goal of this study is to understand the extent to which the HEAT Loan influences customer decision-making, relative to the other factors that influence participation and to explore whether the availability of the HEAT Loan impacts contractor pricing.	TBD	
Low Income Multifamily Impact Evaluation	Resi	Process/ Impact	Riley Hastings	Inventory of the methods currently used to estimate LIMF savings, explore opportunities for standardization where appropriate, assess whether all data required for evaluation are available, and develop PA-Assess and monitor the current state or the evolution of the Multifamily Program as a	Statewide methodology for calculating savings and PA-specific realization rates for appropriate measures. Recommendations for improving program delivery	
Multifamily Process	Resi	Process	Kim Crossman	Provide a baseline study of new construction building practices in four-story and higher multifamily buildings	Provide a baseline study of new construction building practices in four-story and higher multifamily buildings that can be used to calculate savings	
Multifamily High Rise New Construction Baseline Assessment	Resi	Process	Mark Sevier	Compile utility and participant data on residential customers	Provide insights into levels of participation, energy consumption, and energy savings relative to consumption	
Residential Customer Profile Study	Resi	Market Characterization	Kim Crossman	Explore if data quality, response rates, and data collection costs can be improved by a more systematic data collection approach across programs, markets, and evaluations	Development of trade ally/ market actor panels	
Trade Ally Panels	Resi	Market Evaluation	Melanie Coen	The overall goal of this study is to document and quantify the net effects over time of Massachusetts' programs to promote a technology to be determined by the PAs.	TBD	Meetings scheduled for week of 2/24
Residential Market Effects Study	Resi	Process	TBD	Review of the Northampton/Pittsfield CMI initiatives	Determine if evaluation met specific design metrics.	
Serrafix CMI	S/CC	Process	Monica Cohen	Assess impact of 2013 marketing campaign and brand effectiveness	Analysis of post-campaign brand awareness	
Umbrella Mktg - 2013 Post Campaign/MassSave Brand Assessment	S/CC	Other	Phil Moffitt	Assess brand effectiveness	Determine brand effectiveness for CS/GN brands.	
Umbrella Mktg - COOL SMART/GasNetworks Brand Assessment	S/CC	Other	Phil Moffitt	Evaluation Planning and Readiness	Define initiative's success indicators, capture baseline conditions.	
Efficient Neighborhood+ Initiative, Phase I	S/CC	Other	Melanie Coen	Initiative Evaluation	Assess the performance of the initiative against defined success indicators, and explore opportunities for improvement.	Phase II will start after the completion of Phase I, based on in the field progress
Efficient Neighborhood+ Initiative, Phase II	S/CC	Other	Melanie Coen			

Study Name	Research Area	Study Type	Study Manager	Overall Evaluation Goal (Project Summary/Purpose)	Expected Outcomes	Current Notes
Behavioral Program Persistence Study	S/CC	Impact	Mike Goldman	Determine persistence of behavioral program savings.	Determine to what extent program savings persist without treatment, if the savings do persist what is the impact on measure life, and recommend whether PAs can change treatment models based on these results.	Need to have broader group review one-pager
Codes & Standards Coordination/Planning	S/CC	Other	Bill Blake	Track implementation efforts to coordinate future codes & standards evaluation across research areas.	Evaluation plan for Codes & Standards work	
Market Effects Strategic Planning	S/CC	Other	Kim Crossman	Facilitate the development of a process to evaluate market effects and ensure methodological consistency across research areas/programs.	Clear plan and direction for market effects evaluation efforts; documentation of preferred methodology.	
Net-To-Gross Top-Down NTG Methods	S/CC	Other	Monica Cohen	This study will assess and employ alternative techniques for using top-down modeling to measure net energy impacts.	The long term goal is to develop and apply a top-down method for MA, and to understand the strengths and limitations of that method.	
Net-To-Gross Electric C&I NTG	S/CC	Other	Kim Crossman	Quantify NTGR for electric C&I programs	Updated NTGR ratio for electric C&I programs using current methodology	
Non Energy Impacts - Low Income Health NEIs	S/CC	Other	Marie Abdou	Quantify health related NEIs for LI participants	TBD	Needs review of scope
Non Energy Impacts - Using C&I NEIs for Project Recruitment	S/CC	Other	Marie Abdou	Use data from C&I Retrofit NEI study to inform marketing strategies for implementation	Data to inform implementation market strategies	
Non Energy Impacts - Quantifying C&I New Construction NEIs	S/CC	Other	Marie Abdou	Quantify participant non-energy impacts associated with commercial and industrial new construction projects	NEI values for C&I New Construction projects.	
Retrospective Electric DRIPE	S/CC	Other	Monica Kachru	Assess the level and accuracy of DRIPE as set forth in the 2011 Avoided Energy Supply Cost Study.		
Existing Buildings Market Characterization – C&I Customer On-site Assessments (P41)	C&I	Market Characterization	Bill Blake	The principal objective of the C&I Customer On-site Assessments is to build upon the C&I customer telephone surveys and provide a complete quantitative characterization of Massachusetts C&I customers.	The data will be used to characterize buildings of different types and sizes, as well as examine differences in customer practices	This study is still in the scoping phase. More detail will be provided in a later summary.

The above includes only studies that have reached at least the detailed scoping phase. There are other studies in the early scoping phase that aren't included.