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# Quarterly Report of the Program Administrators

## Third Quarter, 2014

### November 6, 2014

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**QUARTERLY REPORT TO THE EEAC  
QUARTER 3, 2014**

**November 6, 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 2013-2015 Energy Efficiency Plans, D.P.U. 12-100 to D.P.U. 12-111 dated January 31, 2013, approving Three-Year Energy Efficiency Plans (the “Plans”) for each Program Administrator (“PA”), this document serves to report on PA activities throughout the Commonwealth during the third quarter of 2014.<sup>1</sup> 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.

The narrative portion of this Quarterly Report for the third quarter of 2014 is organized as follows:

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<sup>1</sup> The PAs are required to file these Quarterly Reports with the Department of Public Utilities for informational purposes. 2010-2012 Energy Efficiency Plans, 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. 2014 Council Priorities Update

1. *Design and Develop a Statewide Database: The Council maintains that designing and developing a comprehensive, accessible, secure statewide database is a top priority in 2014. Ideally, the statewide database will be operational in 2014.*

**ACTION:** In Q3, the PAs participated in a DPU database technical session. Following this session, PAs provided the DPU and interested stakeholders with a straw data reporting inventory, which included data that the PAs already report and data PAs have agreed to report. The DPU approved a very slightly modified data inventory which was then populated by the PAs, and subsequently populated by stakeholders.

In Q3, the PAs launched the five core initial tabs on Mass Save Data (“MSD”), the PAs’ data reporting tool, which is now live at <http://www.masssavedata.com>. These initial tabs include: portfolio overview, sector overview, performance details, sales and savings, and cost to deliver. The website was populated in Q3 with 2013 Q4 data, 2013 Plan-Year Data and data from the first two quarters of 2014. The PAs worked on tabs for Home Energy Services and greenhouse gas. The PA worked on the scope of work for the next phase of MSD (including geographic reporting and data going back to 2010), and met with the vendor in September to develop a scope of work and timeline for Phase 2, recognizing that the timing of some work may need to be coordinated with other efforts, such as digitizing the Technical Reference Manual (TRM) and ongoing evaluation work. The PAs also explored utilizing data analytics similar to MassSave.com. The statewide marketing team placed a link to Mass Save Data in the Learning Center at: <http://www.masssave.com/residential/learning-center> and explored other appropriate spaces to display a link to MSD.

The PAs worked with their TRM vendor, Nexant, in Q3 to help prepare for a staging version of the automated TRM. After the staging, the full integration of the TRM will begin with the projected completion targeted for the end of this calendar year.

2. *Achieve C&I Savings and Benefits Goals: C&I savings goals were largely not met in 2011, 2012, or 2013, which consequently caused the PAs to fall short of their portfolio goals in each of those years. The C&I electric shortfall in 2013 must be accounted for in 2014 and 2015, if the PAs are to meet their 2013- 2015 three-year plan targets. In addition, the Council is interested in investigating opportunities to smooth out the rate at which savings are finalized throughout the year (i.e., mitigating the “hockey stick” effect).*

**ACTION:** In Q3, all PAs continued their efforts to focus on the C&I sector and increase C&I savings. PAs utilized market segmentation strategies, and analyzed market opportunities and business trends. The PAs continued to build on past successes and worked on multi-year engagement opportunities with customers,

which can lead to deeper savings. PAs worked with the Commercial Real Estate Working Group to provide easier access to efficiency programs for commercial real estate customers, and with the Advanced Manufacturing Collaborative (AMC) and DOER to better address the energy efficiency needs of Small to Medium Manufacturing Enterprise. Additionally, in Q3, PAs worked with channel partners and trade ally partners. In the Upstream initiative, PAs launched a pilot to leverage sales data from the upstream lighting initiative to target customers for more comprehensive projects. Also, the upstream subcommittee studied the market potential for new LED products to launch in 2015. PAs continued to review new technologies and offerings in the MTAC, which accepted several new technologies in Q3.

The PAs are committed to achieving strong results in 2014 in the Large C&I Retrofit Program using strategies and tactics such as market segmentation, vendor-driven programs, marketing, multi-year engagement plans, and investment in CHP. The PAs are expecting to increase large C&I performance year-over-year, but will also rely on other programs (including residential) to assist with reaching three-year portfolio goals. For additional detailed information on the C&I efforts made by the PAs in Q3 toward achieving their savings goals, please see Sections III through V.

- 3. *Improve Customer Access to and Use of Energy Efficiency Programs:*** *Clearly define, standardize, measure, and benchmark participation, develop and implement strategies for improving customer access to existing energy efficiency programs, and encourage deeper savings with participants.*

**ACTION:** The PAs have continued to improve customer access to and use of the energy efficiency programs through program design, implementation strategies, and marketing efforts in Q3.

In Home Energy Services, the PAs continued to implement some of the new enhancements from last year while incorporating new opportunities in order to increase customer use of energy efficiency programs. For example, the electric PAs' have introduced more cost-effective LEDs and Advanced Power Strips during the assessment. With the increased offer of LEDs during the HEA, made possible by the high efficiency lighting RFP, PAs have seen an increase in savings and an increase in customer satisfaction. Additionally PAs are offering a pre-weatherization barrier offer, cross-program promotions, and enhanced incentives through programs such as Renew Boston. PAs have also been successful with the early boiler and early furnace replacement rebates. The PAs are also continuing to serve customers in selected communities through Efficient Neighborhoods+®. PAs are also developing new initiatives and offering new technologies, such as deeper savings initiative, contractor incentives, and wireless enabled thermostats.

In lighting, PAs had discussions with retailers and manufacturers to educate them on the upcoming winter pricing increase in Massachusetts and to discuss ways to help

customers save energy and costs this winter. PAs worked on an innovative social media campaign to educate customers about the benefits of energy efficient outdoor lighting. In products, PAs launched two in-store initiatives with key big box retailers during Q3 to improve customer access to and use of energy efficient technologies.

PAs continued to look at deeper savings opportunities that are the right fit for a project in Q3, and to utilize multi-year agreements to encourage greater participation and deeper savings over time.

The PAs participated in working groups and management committees to consistently refine strategies, and worked with stakeholders such as LEAN to coordinate efforts and share ideas and best practices. Additionally, PAs continued to evaluate and measure energy efficiency efforts through their comprehensive EM&V efforts with the Evaluation Management Committee (“EMC”). The PAs also continued their active search and review of new technologies through the MTAC. For additional detailed information on the efforts made by the PAs in Q3, please see Sections III through VI.

4. *Plan for the 2016-2018 Three-Year Plan: Continue, in 2014, to evaluate and assess effective, sustainable energy efficiency program approaches to prepare for and inform the development of the next three-year plan.*

**ACTION:** The PAs continued to reflect on program delivery in Q3, including reviewing program successes and challenges, in order to support sustainable energy efficiency programs and to consistently seek greater savings. PAs continued their robust EM&V efforts in Q3, the results of which play a large role in informing PAs as they prepare for 2016-2018 and determine the cost-effective and successful strategies to carry forward. PAs participated in monthly meetings of the EMC as well as the Planning and Analysis Group, where PAs and the EEAC’s consultants brainstormed some areas of focus for the next three-year plan. The PAs worked on the RFP for the 2015 Avoided Energy Supply Cost (“AESCC”) Study in Q3. For additional details on the PAs’ evaluation activities in Q3, please see Section VI below.

### 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**

At the end of the third quarter, the PAs completed 4,135 units statewide. PAs are on track to reach the statewide goal. Recruitment plans continue to be implemented across the state by the statewide vendor. Specifically, during the third quarter of 2014 the PAs focused on outreach through sponsoring and attending networking and educational events with stakeholders and ally groups. From July through September, program Account Managers attended 15 events spanning across Massachusetts.

In addition to the event outreach, during the third quarter, the PAs completed a full audit of marketing materials used for outreach events and recruitment. As a result of this audit, a forward-looking plan for the marketing materials was developed. The Low Rise portion of these documents have been updated and approved by PAs. The High-Rise portion of these updates will be completed in the fourth quarter.

##### ***Gas New Construction***

The Gas side of the MA Residential New Construction Program has been booming throughout 2014. As of the end of the third quarter, the overall statewide gas program has achieved 161% of the program unit goal. The PAs will continue to process incentives and savings for gas heated homes through the end of the program year.

As of the end of September, there were 145 communities in Massachusetts that had adopted the Stretch Energy Code.

#### RESIDENTIAL HIGH-RISE NEW CONSTRUCTION

At the end of September 2014, 12 projects with 567 residential units completed the Multi-family High-Rise program path: 73 low-income units, and 494 non-low income units. Recruitment efforts among the most active multi-family developers continued throughout the last quarter where Kristen Simmons, Account Manager/Associate for ICF was featured on a panel with high-rise developers for BisNow. Account Managers also attended a number of events in the greater Boston area networking and raising awareness of the benefits of the

Program. The Technical Resource Manual (TRM) review began to evaluate how savings are calculated for the program to be completed and implemented for the 2015 Program Year.

## C&I COORDINATION

Monthly project meetings were held with C&I and residential staff members of NSTAR and National Grid to review and qualify projects for participation in the Multi-family High-Rise initiative. The meetings are focused on identifying all cost-effective energy saving opportunities and preventing the double counting of savings for projects that have submitted custom.

## Home Energy Services and HEAT Loan

Through the third quarter of 2014, most PAs are on track to meet or exceed goals for Home Energy Services. The PAs continue to implement some of the new enhancements from last year while incorporating new opportunities.

### *Continuing Initiatives:*

- Electric PAs' introduction of more cost-effective LEDs and Advanced Power Strips during the HEA
- Pre-Weatherization Barrier Offer
- Cross Program Promotions
- 2-4 Unit Incentive (Renew Boston)
- Early Boiler Replacement Rebate
- Early Furnace Replacement Rebate
- Early Air Conditioning Replacement
- Enhanced Customer Bonus Initiatives
- Rebates for Wireless Enabled Thermostats (some PAs)
- Efficient Neighborhoods+®

### *2014 Initiatives Currently in Development:*

- Deeper Savings Initiative (except National Grid)
- Contractor Incentives
- Wireless Enabled Thermostats

With the increased offer of LEDs during the HEA, made possible by the high efficiency lighting RFP, PAs have seen an increase in savings and an increase in customer satisfaction, and expect to continue to experience this trend through the end of the year.

Efficient Neighborhoods+® and Early Heating Equipment initiatives continued through Q3. The PAs extended the timeframe for Efficient Neighborhoods+ in 2014 and it is planned to end in Q4.

At the beginning of 2014, PAs began offering rebates for wireless enabled thermostats for oil and propane fired heating equipment. Some PAs have begun exploring wireless enabled thermostats as an installed measure through the program.

The newly elected members of the Contractors Best Practices Working Group (BPWG) had their first official meeting in September 2014 and have already begun tackling programmatic topics and driving potential changes. The subcommittees continue to meet to work through performance standards, training, and new technologies.

The HEAT Loan continues to be in high demand and is trending higher than YTD 2013. The PAs continue to see higher HEAT Loan authorizations per month as compared to the same time last year. Heating equipment is still the primary driver of the HEAT Loan with an increase in Central AC financed as compared to last year. The PAs attribute this primarily to the Early Boiler, Early Furnace and newly added Early AC Replacement Rebates. Additionally, the DOER's Expanded HEAT Loan Offering continues to be available to customers.

### **Residential Lighting**

The PAs have been in discussions with retailers and manufacturers to educate them on the upcoming winter pricing increase in Massachusetts and, more importantly, to discuss ways the PAs can leverage their retail relationships to help provide customers with ways to save this winter.

The PAs are a sponsor of Fox 25's Mission Renovation – an initiative to award one Massachusetts veteran with a home renovation. As part of their involvement, the PAs will be providing efficient lighting to the home in coordination with a local retailer or manufacturer.

To date, the PAs have conducted two of five interviews that were broadcast during morning programming and are available online. The first two interviews, conducted by Cape Light Compact and Unitil, covered general awareness of Mass Save programs, available rebates and offers as well as information about Home Energy Services, respectively. Three remaining interviews are scheduled for Q4 that will go into depth on lighting and appliances.

This July, the PAs partnered with manufacturer MaxLite on an innovative social media campaign to educate customers about the benefits of energy efficient outdoor lighting. MaxLite provided ten (10) outdoor lighting packs consisting of various LED fixtures and outdoor rated bulbs. The promotion had a very strong tie to retail locations throughout Massachusetts that carried MaxLite lighting products. Information on participation retail locations was made available on the Facebook.com/Mass Save web site as well as MassSave.com. The promotion was the most successful sweepstakes for Mass Save, with 6,188 total entries, and very positive engagement from fans.

This fall the PAs will be continuing their partnership with the Ellie Fund in collaboration with manufacturer partner Greenlite. Every pink based LED sold will generate \$1.50 donation to the Ellie Fund. The PAs will be launching the #KeepTheLightOn campaign in late October to support the Ellie Fund as focus shifts away from breast cancer awareness when it is often needed the most. The PAs will be attending events, sending post cards to raise awareness, and will be developing a video in support of the campaign. In addition, the PAs will be offering a special, discounted social sales promotion through Facebook and Twitter where customers can



purchase three LEDs for \$12 which includes a \$4.50 donation to the Ellie Fund that launched on October 31.

In September, the PAs released an RFP for the Field Services contract for Lighting & Products. The RFP was sent to six potential bidders with three vendors responding. Northeast Utilities' procurement department is leading the RFP process and a decision will be made by the end of October.

### **Residential Consumer Products**

The PAs were able to launch two in-store initiatives with key big box retailers during Q3. In August, Best Buy launched an instant rebate promotion on qualified refrigerators and freezers in select locations throughout Massachusetts. Customers who purchased a qualified unit would receive an instant rebate instead of having to mail in a rebate for processing. To support this innovative promotion, the PAs ran a sweepstakes that gave away five (5) \$100 Best Buy gift cards. Nearly 2,000 people entered the contest.

In September, the PAs were able to leverage in-aisle displays throughout Massachusetts with Sears to increase awareness on the available \$40 rebate on air purifiers during the peak of allergy season. Special signage was developed for the in-store placement accompanied by placement of rebates near qualified units. During the same timeframe, the PAs ran a sweepstakes on their Twitter page to educate customers on the benefits of ENERGY STAR air purifiers. The contest had a reach of 92,000 (number of unique Twitter followers who were exposed to the promotion).

The PAs also put a strong push on advanced power strips to coincide with back to school and the start of fall programming. In August, they executed a sweepstakes using Twitter (@MassSave) where followers had the opportunity to win a new advanced power strip if they retweeted a specific hashtag. In September, the PAs launched their first social sales promotion for Tier 2 advanced power strips through the Facebook page. The promotion was successful, resulting in the sales of 450 Tier 2 advanced power strips.

The Lighting and Products Facebook page (Facebook.com/MassSavers) is quickly approaching 100,000 fans and the PAs are planning to celebrate this milestone through a special social media promotion.

### **Gas Residential Heating and Water Heating**

The 14<sup>th</sup> Annual GasNetworks Conference was held on September 25<sup>th</sup> at The Lantana in Randolph, MA. The event was well-attended and well-received by energy efficiency professionals, heating, plumbing and HVAC contractors, distributors, and manufacturers. The conference featured HeatingHelp.com's Dan Holohan as a returning guest speaker who covered the topics of "Greening Steam" and "The Roots of Radiant Heating". Other break-out training sessions included Mitsubishi covering Ductless Mini-Split Heat Pump best practices, ECM Circulator Pump education, Duct Diagnostics, ACCA's Manual S Residential Equipment Sizing, and Current Events in the Gas Industry.

The conference also featured Natural Gas Direct Install Training to C&I Program Vendors and the introduction of a new upstream incentive for residential circulator pump purchases. A total of 437 attendees enjoyed the conference.

The PA working group agreed to terms with Pixel Media to redesign GasNetworks.com, which will enhance digital marketing opportunities, web analytics to monitor contractor use of the site, and enhanced content management tools to quickly update incentive offers, industry training schedules, and other industry news.

With the heating season in full swing, healthy production across all program offerings continues, with most PAs reporting production on track to meet or exceed stated goals. At September's end, the GasNetworks program had processed over 6,700 boiler incentives and 3,300 furnace incentives – these numbers do not include Early Furnace or Early Boiler activity which is offered via Home Energy Services.

### **Electric Residential Cooling and Heating**

At the GasNetworks Conference on September 25<sup>th</sup>, the Cool Smart PAs announced a new Electronically Communicated Magnetic Motor (ECM) Circulator Pump instant incentive that is now available at participating heating and plumbing supply houses across the state. The PAs continue to work with manufacturers, distributors, and other industry partners to increase awareness of this new program and ECM Circulator Pump technology.

Taking an integrated approach, the PAs' Cool Smart initiative teamed with GasNetworks to include multiple training sessions and vendor exhibit booths at the 14<sup>th</sup> GasNetworks Conference. Mitsubishi trained contractors on Mini Split Heat Pump technology updates and best practices for installation. Grundfos, Bell & Gossett, and Taco offered ECM Circulator Pump discussions and training, and System Sizing and Duct Diagnostic topics were covered in break-out sessions.

In an ongoing effort to increase customer awareness and education, the PAs have released [customer-facing videos](#) on the Mass Save website that shed light on ductless mini split heat pump and heat pump water heater technologies. These videos will coincide with redesigned rebate forms to provide additional educational subject matter.

Most PAs have currently met or exceeded stated savings goals. To date, the Cool Smart initiative has processed over 2,600 Central AC equipment incentives, over 475 Central Heat Pump incentives, and over 5,000 Ductless Mini Split Heat Pump Incentives.

## **LOW-INCOME SECTOR**

### **Low-Income Single Family**

Through the end of the third quarter of 2014, the Low-Income Single Family budgets and savings vary by PA but are generally on or ahead of target with an expectation of meeting

and/or possibly exceeding goals.

The PAs completed the transition to the distributor selected to fulfill High Efficiency Lighting Products statewide for all residential and low-income direct install programs. With the significant cost savings achieved through this effort, the PAs have been able to transition to primarily offering LEDs within certain bulb categories (i.e., Reflectors/Recessed cans and A-Lamps and Spirals at 60W incandescent equivalent or less). The PAs will continue to monitor the market and hope to transition primarily to LEDs within other bulb categories as pricing continues to decline.

Additionally, the PAs continue to participate in the Best Practices Working Group to coordinate statewide on all aspects of the Low-Income Retrofit Programs and review any new measures for possible inclusion within the program.

### **Low-Income Multi-Family Retrofit**

The Low-Income Multi-Family budgets and savings vary by PA; however, most PAs are on or ahead of target for budget and savings goals. There are several projects currently in the pipeline across the Commonwealth, so the PAs anticipate a very productive fourth quarter in 2014.

The PAs completed the transition to the distributor selected to fulfill High Efficiency Lighting Products statewide for all residential and low-income direct install programs. With the significant cost savings achieved through this effort, the PAs have been able to transition to primarily offering LEDs within certain bulb categories (i.e., Reflectors/Recessed cans and A-Lamps and Spirals at 60W incandescent equivalent or less). The PAs will continue to monitor the market and hope to transition primarily to LEDs within other bulb categories as pricing continues to decline.

Even though the Multi-Family Benchmarking Metric was finalized in 2013, the PAs continue to utilize the WEGOWise Multi-Family Benchmarking tool to help to identify the least-efficient buildings among all those eligible for funding and aid in the prioritization of energy efficiency projects to make the most of the budgets.

### **Low-Income New Construction**

Throughout 2014 this initiative has overall found the low-income new construction market to be less active as in past years. The initiative has performed targeted recruiting to the low-income market across the state; however, the feedback received is that new construction has slowed and renovation and improvement projects have increased, resulting in fewer projects eligible for the MA new construction initiatives. During the third quarter, the PAs continued to recruit and network with the low-income market and, though the overall goals have not been met, the initiative has maintained a strong capture rate.

## COMMERCIAL AND INDUSTRIAL SECTOR

In Q3, the Program Administrators continued to work diligently toward achieving the 2014 savings goals while actively exploring opportunities to expand offerings, enhance strategies and to encourage participation throughout the year.

### Highlights

**Commercial Real Estate (CRE):** The CRE Working Group (CREWG) is working to provide easier access to efficiency programs for CRE customers. In order to help inform the direction of energy efficiency programs, the CREWG has scheduled roundtable discussions in Q4 with stakeholder groups to discuss the following topics:

- Streamlining energy efficiency investments during tenant fit out
- Better serving smaller CRE customers
- Energy efficiency leases
- Best practices for sharing energy use information with tenants and owners

**Manufacturing:** Since March of 2014, National Grid and Northeast Utilities have been representing the PAs in working with the Advanced Manufacturing Collaborative (AMC) and the DOER to better address the energy efficiency needs of Small to Medium Manufacturing Enterprise (SMEs). A key focus has been to improve the visibility of PAs' efficiency offerings available to manufacturers. To that end, the PAs have updated literature for the Mass Save website, connected with MassMEC to share and make program information available to current and potential customers, and are in the process of creating links to Mass Save on common industry web-portals such as AIM, RampMA, and MassMEP.

Another key focus is to reach out to AMC's SME members to validate program participation and to close any service gaps where members may not have worked with the PAs in the past.

**Main Streets:** In September of 2014, Main Street initiatives were launched in two additional communities on Cape Cod – Chatham and Falmouth. Cape Light Compact expects to finish testing in 2015 with two more community roll outs in preparation for evaluation of the initiative overall for the upcoming 2016-2018 Three-Year Plan.

**Communication Channels:** In Q3, Cape Light Compact once again provided its ongoing, 30 minute local radio show, entitled, "Focus on Energy," which airs on Provincetown's WOMR the first Sunday of each month. The Compact has been doing this radio show for many years. This quarter's topics included segments on Smart Grid concepts and Residential Program Updates as well as a show dedicated to one of Cape Cod's largest building projects in recent memory – the Monomoy Regional High School. The more than 160,000 square foot facility opened to students from Harwich and Chatham in September of this year with numerous energy efficiency measures incorporated into its design. The Cape Light Compact and National Grid worked together with the school's building committee and architects, utilizing a

Comprehensive Design Approach. The measures incorporated are expected to yield annual energy savings for the school of more than 550,000 kWh and more than 9,600 therms.

### **Events and Outreach**

- On September 24th, National Grid hosted the 2014 Customer and Partners Energy Efficiency Summit at Gillette Stadium. The Summit, which was attended by over 50 trade allies and over 200 customers, provided the following opportunities to:
  - Connect with relevant and local technologies and solutions to optimize their energy needs
  - Learn about the latest energy efficiency products from leading manufacturers and distributors of electric and gas equipment, systems and services
  - Connect with the National Grid team and subject matter experts in a one-on-one setting
  - Discover opportunities to improve their profitability with information about energy efficiency projects, financing and incentives.
- The 14th Annual GasNetworks Conference was held on September 25th at The Lantana in Randolph, MA. All of the gas PAs were in attendance to facilitate discussions with a great number of important trade allies spanning installation contractors, distributors, and manufacturers.
- Amit Kulkarni from National Grid presented on the use of building analytics to improve program performance at the E Source Forum 2014. The presentation included an overview of energy efficiency programs in Massachusetts and Rhode Island and various approaches by National Grid to improve program performance using big data and EMIS programs. The presentation was attended by nearly 100 utility program administrations and industry stakeholders across the U.S. and Canada.

### **Subcommittee Activities**

The various C&I Subcommittees discussed a number of issues and areas for possible improvement during Q3. Details for each Subcommittee are as follows:

***Electric Non-Lighting:*** A detailed review of costs/incremental costs was conducted by NEEP and reviewed by the Subcommittee to make adjustments to 2015 incentive levels. The IECC 2012 code was also reviewed for impacts to 2015 New Construction variable speed drive applications. New measures were identified for addition to the 2015 Compressed Air application based on experiences of PAs in New York.

***Lighting:*** During Q3, the lighting subcommittee revised the list of eligible prescriptive lighting measures and associated incentive levels, expanded performance lighting offerings to include retrofit projects based on IECC 2012 code mandates, worked on developing a regional LED smart troffer incentive, and evaluated incentives for lighting designers to encourage adoption of high efficiency lighting.

**Natural Gas:** At the 14th Annual GasNetworks Conference held on September 25th at The Lantana in Randolph, MA the gas Program Administrators hosted a small business training and information session conducted by Robert Gyurjan from Berkshire Gas and Matt Zenni from Liberty Utilities. Over 50 staff members representing all 14 of the small business vendors across the state were in attendance.

**Upstream:** During Q3, the subcommittee launched a pilot to leverage sales data from the upstream lighting initiative to target customers for more comprehensive projects. Also, the subcommittee studied the market potential for new LED products to launch in 2015.

#### **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 new energy efficiency technologies. MTAC approved three new technologies/products during Q3. These technologies/products include: Battery Charging Equipment, Window Glaze, and Pump Coating.

- Battery Charging Equipment contains high frequency chargers that are more compact and improve efficiency of the operation. They also include controls that automatically shut off when done charging.
- Window Glaze involves a custom-made solid plexi-glass window. The PAs have decided that the residential low-income program would be the best fit for this technology.
- MTAC has determined that there is increased efficiency in ceramic pump coating and has recommended the technology to be routed through the custom program.

MTAC also has several technologies/products on the horizon, including HVAC Smart Chip (fan delay), Multifamily Vacuum Steam Heating System, and Heat Pump Dryer.

#### **V. Marketing, Education, Outreach Highlights**

##### Statewide Marketing

In Q3, PAs continued the Mass Save Awareness Campaign in order to continue to increase awareness of energy efficiency and Mass Save across the Commonwealth. The Campaign works across many forms of media, including radio, internet banner ads, social media, smartphone and tablet ads, and print ads.

The Statewide Marketing team issued an RFP in Q2 for marketing and website services for the 2015 campaign. In Q3, the team reviewed several proposals and selected a new vendor.

During the third quarter, the PAs completed a full audit of marketing materials used for outreach events and recruitment in residential New Construction. As a result of this audit, a forward-looking plan for marketing materials was developed.

In Q3, the PAs began working with Pixel Media to redesign GasNetworks.com. This project will enhance digital marketing opportunities, provide web analytics to monitor contractor use of the site, and lead to enhanced content management tools to quickly update incentive offers, industry training schedules, and other industry news.

In an ongoing effort to increase customer awareness and education, the PAs have released [customer-facing videos](#) on the Mass Save website that provide information on ductless mini split heat pump and heat pump water heater technologies. These videos will coincide with redesigned rebate forms to provide additional educational subject matter.

### Statewide Education

The Statewide Education Working Group sponsored a teacher training at the Museum of Science, Boston on August 13, 2014. Over 75 teachers from across the state attended this training and received continuing education credits, curriculum, and supplies to be utilized in their classrooms.

## **VI. Evaluation, Measurement, and Verification Highlights**

During the third quarter of 2014, 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 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.

**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. Final results are expected in the fourth 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 complete and draft results were completed 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 final results were completed 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 in 2015.

**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. The results of this study were completed in the third 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 fourth quarter of 2014.

**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 were expected to be completed in the first quarter of 2014. Draft results were received in the fourth 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 was scheduled in the first quarter of 2014 to discuss possible study outputs in greater detail. Draft results are expected in the first quarter of 2015.

**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. Draft results are expected in the first quarter of 2015.



**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 third quarter of 2014.

**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.

### **Commercial & Industrial Research Area**

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

**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 report was finalized in the third 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. The report was finalized in the third 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. The final report is expected in the second quarter of 2015.

**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 fourth quarter of 2014.

**Impact Evaluation of 2012 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 2012 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. Research began in the first quarter of 2014.

**C&I 2012 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. The report was finalized in the third 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. The study is currently underway and work began in the first quarter of 2014. The final report is expected in the fourth 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. The study is underway and work began in the first quarter of 2014. The draft interim report is expected in the fourth 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. The study is underway and final results are expected in the fourth quarter of 2014.

**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. The study is underway and work began 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. The study is underway and work began 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. The report was finalized in the third quarter of 2014.

**Impact Evaluation of 2012 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. Final results are expected in the fourth quarter of 2014.

**EISA T-12 Phase out Research.** This study seeks to determine if lighting manufactures are still producing T12 lamps despite the phase-out initiated by the EPACT and EISA legislation and if so how are these manufacturers producing T12 lamps that meet the new efficacy requirements and how big a market these continuing T12 sales represent. The study is underway and work will be complete in the first quarter of 2015.

**C&I Customer On-Site Assessments.** This study is to build upon the data collected in the C&I customer telephone surveys and gather the data that will help the energy efficiency programs continue to grow and expand current offerings by providing a clearer understanding of the existing C&I building market in Massachusetts. This study is underway and the final report is expected in the fourth quarter 2015.

**Impact Evaluation of 2013 Custom Gas Measures.** This study will provide updated realization rates based on in-field metering of a robust sample of projects completed in 2013. Research began in the third quarter of 2014.

**C&I 2013 Customer Profile.** This is the third 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 collection was completed in the third quarter of 2014 and scope of work for analysis and reporting is currently being developed.

### **Special and Cross-Sector Research Area**

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

**Net-to-Gross – Gas C&I NTG:** The study seeks to help the PAs and the EEAC update natural gas net-to-gross (NTG) factors in the C&I sector. The last natural gas NTG study was completed in 2012, and the last electric NTG study was just completed in 2014.

**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.

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

**Massachusetts Cross-Cutting Behavior Program Impact and Process Evaluation:** The goal of the study is to conduct an impact evaluation and follow-up process evaluation to measure the following:

Impact: (1) update of cohort-specific savings and realization rates, (2) assess appropriateness of existing experimental design, with a particular emphasis on overlapping PA programs (e.g., customers simultaneously assigned to treatment and control groups depending on PA), and (3) measure the cross-fuel savings that have not been measured to date.

Process: (1) actions customers are taking that are driving on-going savings, (2) assess the value of the reports in generating persistent savings through survey and in-depth interviews, and (3) determine whether or not customers are interested in additional program offerings or improvements based on surveys and in-depth interviews.

The following specific high priority studies are currently underway 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.

**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 – 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.

**Comprehensive Review of Training and Education Programs:** The goal of the study is to identify opportunities for increased BOC rebate conversion, as well as to better understand and quantify the BOC’s O&M and equipment savings as reported by other studies.

**Comprehensive Review of Behavior and Education Programs:** The goal of the study is to provide the MA program administrators (PAs) with an understanding of the landscape of behavior and education programs, focusing on innovative programs that result in quantifiable savings that can be claimed.

**Umbrella Marketing - Mass Save Statewide Campaign Post Campaign Study:** The goal of this study is to field a post-campaign survey to gauge the immediate impact of the 2014 statewide marketing campaign among residential and Commercial and Industrial (C&I) customers.

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

## **VII. Regulatory Updates**

On July 31, 2014, the PAs filed a Report on Consistent Cost Categories, in accordance with the January 31, 2013 Order of the Department approving the Three-Year Plans. The PAs spent significant time reviewing in detail the labor and vendor costs across all PAs to determine the areas in which they are consistent and those in which they differ. As shown in the report, the PAs refined the definitions that they had developed over the last several years in order to clarify certain details and include additional details within the definitions to assist implementation over time. With respect to salaries, the PAs traditionally reporting all salaries in the program planning and administration (“PP&A”) category examined employee responsibilities to allow for allocation of salary across relevant budget categories. As noted in the report, in order to allow the Department the ability to compare approved budgets with reported spending at the end of the three-year term on an “apples to apples” basis, the PAs plan to make all changes related to cost categories at the beginning of the 2016-2018 three-year plan.

Proceedings continued in D.P.U. 14-86, in which DOER and DEP jointly submitted a petition and testimony requesting adoption of the avoided costs of complying with the Global Warming Solutions Act in energy efficiency programs using the marginal abatement cost curve methodology. On July 16, 2014, PAs participated in a public hearing for comments and procedural conference. Also in Q3, several stakeholders, including PAs, intervened in this docket, and PAs reviewed amended testimony from DOER/DEP, comments from stakeholders, and information requests from the Attorney General and the Department.

In Q3, the PAs submitted comments on the four outcomes related to potential RCS guidelines that were introduced by DOER and discussed at stakeholder meetings on June 20, 2014 and June

24, 2014. The PAs stated that they are generally supportive of the goals contained in the four broad outcomes and are open to discussing practical and supportable ways in which they could be achieved, but noted that, prior to implementing any changes related to these outcomes, a detailed review would need to be conducted on the specific expectations related to each outcome. PAs also reviewed comments of other stakeholders.

The DPU held a database technical session on July 14, 2014 and asked the PAs to provide a straw data reporting inventory, which would include data PAs already report and data PAs have agreed to report. The PAs provided the straw to the DPU on July 18. The DPU approved a very slightly modified data inventory on July 24, at which time the DPU directed the PAs to populate the spreadsheet by August 7. On August 21, stakeholders populated the spreadsheet with their areas of interest.

Also in Q3, several PAs worked on Mid-Term Modification Requests to the Council. Pursuant to § 3.8.1 of the Revised Energy Efficiency Guidelines set forth in D.P.U. 11-120-A, Phase II (January 31, 2013), an energy efficiency Program Administrator that seeks to make certain significant modifications to its Energy Efficiency Plan is required to submit its proposed modifications to the Council for review. In Q3, National Grid, Unitil, and the Cape Light Compact prepared materials for review and discussion by the Executive Committee and the Council regarding mid-term modifications for increased residential budgets. Those PAs also worked with the EEAC consultants on proposed resolutions. Resolutions approving the mid-term modifications were passed in the October Council meeting.

**ATTACHMENT A**  
**QUANTITATIVE REPORT**

**Q3 2014 Statewide Electric Budgets (January 1, 2014 through September 30, 2014 )**

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
<b>Electric</b>						
<b>Planned</b>	\$ 28,100,084	\$ 18,080,307	\$ 362,618,125	\$ 71,318,572	\$ 15,901,188	\$ 496,018,277
<b>Residential</b>	\$ 6,404,675	\$ 11,037,957	\$ 109,802,725	\$ 30,258,759	\$ 5,348,284	\$ 162,852,400
Residential Whole House	\$ 3,368,975	\$ 3,759,570	\$ 73,023,795	\$ 21,601,933	\$ 3,777,873	\$ 105,532,147
Residential Products	\$ 1,567,833	\$ 4,315,142	\$ 28,065,128	\$ 6,192,181	\$ 1,425,520	\$ 41,566,105
Residential Hard-to-Measure	\$ 1,467,867	\$ 2,963,245	\$ 8,713,802	\$ 2,464,644	\$ 144,590	\$ 15,754,148
<b>Low-Income</b>	\$ 3,234,052	\$ 666,259	\$ 39,695,582	\$ 9,497,982	\$ 1,829,828	\$ 54,923,703
Low-Income Whole House	\$ 1,864,141	\$ 407,060	\$ 39,695,582	\$ 9,483,582	\$ 1,790,111	\$ 53,240,476
Low-Income Hard-to-Measure	\$ 1,369,912	\$ 259,199	\$ -	\$ 14,400	\$ 39,716	\$ 1,683,227
<b>Commercial &amp; Industrial</b>	\$ 18,461,358	\$ 6,376,091	\$ 213,119,818	\$ 31,561,831	\$ 8,723,076	\$ 278,242,174
C&I New Construction	\$ 3,797,438	\$ 1,468,440	\$ 38,456,766	\$ 8,185,850	\$ 2,053,311	\$ 53,961,806
C&I Retrofit	\$ 11,908,986	\$ 3,768,845	\$ 174,663,051	\$ 23,375,981	\$ 6,458,581	\$ 220,175,443
C&I Hard-to-Measure	\$ 2,754,933	\$ 1,138,807	\$ -	\$ -	\$ 211,185	\$ 4,104,924
<b>Q3</b>	\$ 17,216,409	\$ 9,219,525	\$ 198,246,178	\$ 42,612,373	\$ 5,985,483	\$ 273,279,967
Residential	\$ 4,400,721	\$ 6,920,695	\$ 90,011,327	\$ 20,419,383	\$ 2,502,767	\$ 124,254,889
Residential Whole House	\$ 2,212,236	\$ 2,059,742	\$ 55,932,403	\$ 14,914,629	\$ 1,142,127	\$ 76,261,134
Residential Products	\$ 912,559	\$ 2,965,828	\$ 25,787,898	\$ 3,648,039	\$ 1,261,548	\$ 34,575,873
Residential Hard-to-Measure	\$ 1,275,926	\$ 1,895,125	\$ 8,291,026	\$ 1,856,716	\$ 99,092	\$ 13,417,882
Low-Income	\$ 1,495,837	\$ 299,093	\$ 31,750,019	\$ 6,028,192	\$ 381,701	\$ 39,954,841
Low-Income Whole House	\$ 1,073,903	\$ 91,298	\$ 31,750,019	\$ 5,951,246	\$ 373,257	\$ 39,239,722
Low-Income Hard-to-Measure	\$ 421,934	\$ 207,796	\$ -	\$ 76,946	\$ 8,443	\$ 715,119
Commercial & Industrial	\$ 11,319,851	\$ 1,999,737	\$ 76,484,833	\$ 16,164,798	\$ 3,101,015	\$ 109,070,237
C&I New Construction	\$ 2,025,559	\$ 367,216	\$ 28,456,849	\$ 5,525,957	\$ 863,452	\$ 37,239,036
C&I Retrofit	\$ 6,253,634	\$ 854,551	\$ 48,027,983	\$ 10,632,662	\$ 2,068,579	\$ 67,837,410
C&I Hard-to-Measure	\$ 3,040,657	\$ 777,970	\$ -	\$ 6,179	\$ 168,985	\$ 3,993,791

YTD as Percentage to Planned	Program Planning and Administration	Marketing and Advertising	Participant Incentive	Sales, Technical Assistance & Training	Evaluation and Market Research	Total Spend
<b>Electric</b>	<b>61%</b>	<b>51%</b>	<b>55%</b>	<b>60%</b>	<b>38%</b>	<b>55%</b>
<b>Residential</b>	<b>69%</b>	<b>63%</b>	<b>82%</b>	<b>67%</b>	<b>47%</b>	<b>76%</b>
1. Residential Whole House	66%	55%	77%	69%	30%	72%
2. Residential Products	58%	69%	92%	59%	88%	83%
3. Residential Hard-to-Measure	87%	64%	95%	75%	69%	85%
<b>Low-Income</b>	<b>46%</b>	<b>45%</b>	<b>80%</b>	<b>63%</b>	<b>21%</b>	<b>73%</b>
4. Low-Income Whole House	58%	22%	80%	63%	21%	74%
5. Low-Income Hard-to-Measure	31%	80%	0%	534%	21%	42%
<b>Commercial &amp; Industrial</b>	<b>61%</b>	<b>31%</b>	<b>36%</b>	<b>51%</b>	<b>36%</b>	<b>39%</b>
6. C&I New Construction	53%	25%	74%	68%	42%	69%
7. C&I Retrofit	53%	23%	27%	45%	32%	31%
8. C&I Hard-to-Measure	110%	68%	0%	0%	80%	97%



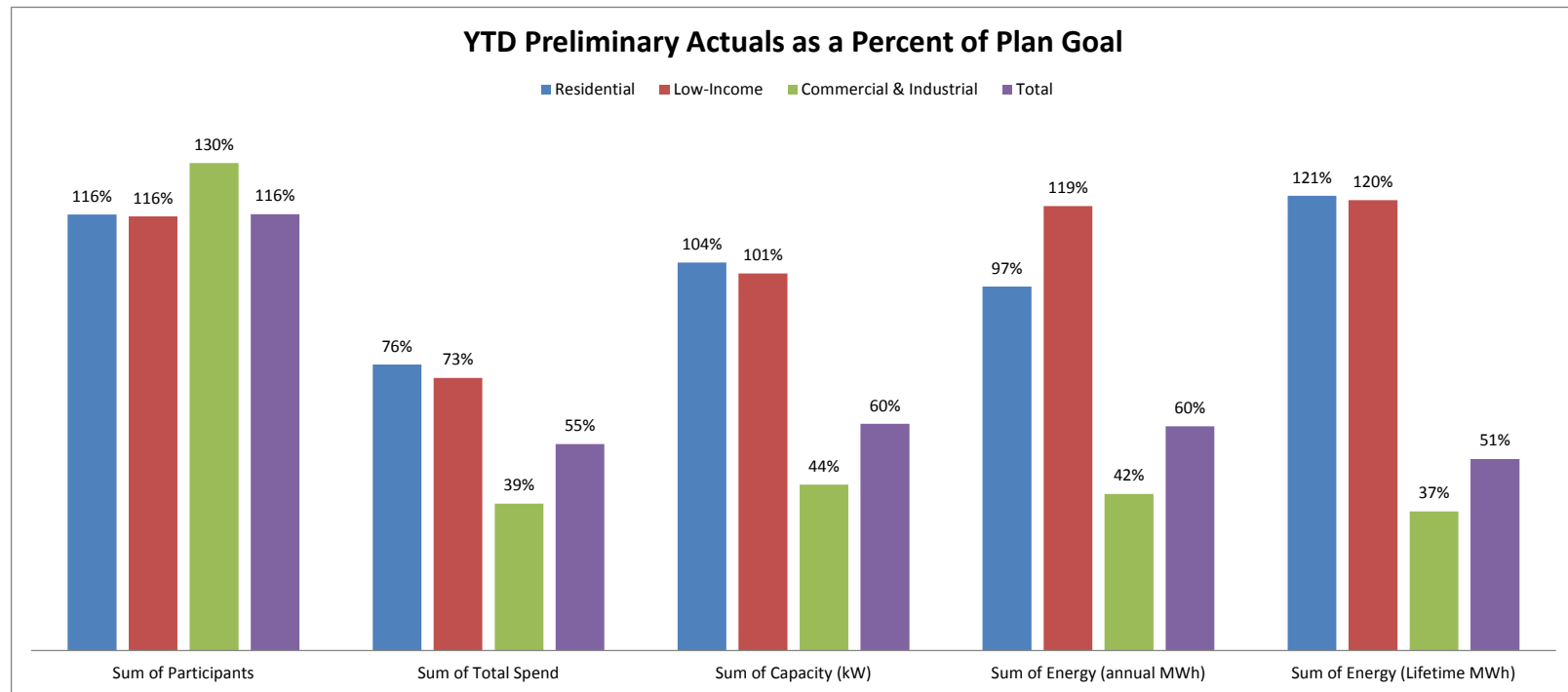
**Q3 2014 Statewide Electric Savings (January 1, 2014 through September 30, 2014 )**

Row Labels	Total Sum of Participants	Total Sum of Capacity (kW)	Total Sum of Energy (annual MWh)	Total Sum of Energy (Lifetime MWh)
<b>Electric</b>				
<b>Planned</b>	2,303,685	177,696	1,236,598	13,268,628
Residential	2,259,817	45,584	364,571	1,952,344
Residential Whole House	929,641	24,344	193,722	665,982
Residential New Construction	4,295	841	4,697	50,714
Residential Multi-Family Retrofit	25,817	954	16,748	181,172
Residential Home Energy Services	49,830	4,229	32,634	294,453
Residential Behavior/Feedback	849,698	18,319	139,644	139,644
Residential Products	1,330,176	21,239	170,849	1,286,362
Residential Cooling & Heating Equipment	12,228	3,231	6,035	82,438
Residential Lighting	1,215,714	15,783	148,167	1,073,875
Residential Consumer Products	102,234	2,226	16,647	130,048
Low-Income	27,488	3,246	27,759	260,056
Low-Income Whole House	27,488	3,246	27,759	260,056
Low-Income New Construction	1,358	116	1,033	10,646
Low-Income Single Family Retrofit	10,541	1,500	12,250	114,470
Low-Income Multi-Family Retrofit	15,589	1,630	14,476	134,940
Commercial & Industrial	16,380	128,866	844,268	11,056,228
C&I New Construction	4,061	32,756	177,958	2,409,045
C&I New Construction	4,061	32,756	177,958	2,409,045
C&I Retrofit	12,319	96,110	666,310	8,647,183
C&I Retrofit	4,003	71,088	535,105	7,210,612
C&I Direct Install	8,316	25,022	131,205	1,436,571
Q3	2,682,240	107,446	739,952	6,782,490
Residential	2,629,111	47,187	354,094	2,368,487
Residential Whole House	1,011,882	22,684	174,637	730,857
Residential New Construction	3,435	1,938	6,088	68,408
Residential Multi-Family Retrofit	22,772	821	16,443	173,661
Residential Home Energy Services	30,994	6,939	50,607	387,289
Residential Behavior/Feedback	954,681	12,986	101,499	101,499
Residential Products	1,617,229	24,504	179,458	1,637,630
Residential Cooling & Heating Equipment	12,658	1,281	7,667	112,871
Residential Lighting	1,502,191	21,511	162,474	1,450,010
Residential Consumer Products	102,380	1,712	9,316	74,749
Low-Income	31,829	3,267	32,907	312,529
Low-Income Whole House	31,829	3,267	32,907	312,529
Low-Income New Construction	257	22	146	1,388
Low-Income Single Family Retrofit	9,035	1,805	10,530	96,304
Low-Income Multi-Family Retrofit	22,537	1,440	22,231	214,836
Commercial & Industrial	21,300	56,991	352,951	4,101,475
C&I New Construction	16,278	34,559	191,444	2,092,742
C&I New Construction	16,278	34,559	191,444	2,092,742
C&I Retrofit	5,022	22,433	161,507	2,008,733
C&I Retrofit	1,215	11,792	105,446	1,330,226
C&I Direct Install	3,807	10,640	56,061	678,507

YTD as Percentage to Planned	Participants	Capacity (kW)	Energy (annual MWh)	Energy (Lifetime MWh)
<b>Electric</b>	<b>116%</b>	<b>60%</b>	<b>60%</b>	<b>51%</b>
<b>Residential</b>	<b>116%</b>	<b>104%</b>	<b>97%</b>	<b>121%</b>
<b>Residential Whole House</b>	<b>109%</b>	<b>93%</b>	<b>90%</b>	<b>110%</b>
Residential New Construction	80%	230%	130%	135%
Residential Multi-Family Retrofit	88%	86%	98%	96%
Residential Home Energy Services	62%	164%	155%	132%
Residential Behavior/Feedback	112%	71%	73%	73%
<b>Residential Products</b>	<b>122%</b>	<b>115%</b>	<b>105%</b>	<b>127%</b>
Residential Cooling & Heating Equipment	104%	40%	127%	137%
Residential Lighting	124%	136%	110%	135%
Residential Consumer Products	100%	77%	56%	57%
Low-Income	116%	101%	119%	120%
<b>Low-Income Whole House</b>	<b>116%</b>	<b>101%</b>	<b>119%</b>	<b>120%</b>
Low-Income New Construction	19%	19%	14%	13%
Low-Income Single Family Retrofit	86%	120%	86%	84%
Low-Income Multi-Family Retrofit	145%	88%	154%	159%
Commercial & Industrial	130%	44%	42%	37%
<b>C&amp;I New Construction</b>	<b>401%</b>	<b>106%</b>	<b>108%</b>	<b>87%</b>
C&I New Construction	401%	106%	108%	87%
<b>C&amp;I Retrofit</b>	<b>41%</b>	<b>23%</b>	<b>24%</b>	<b>23%</b>
C&I Retrofit	30%	17%	20%	18%
C&I Direct Install	46%	43%	43%	47%

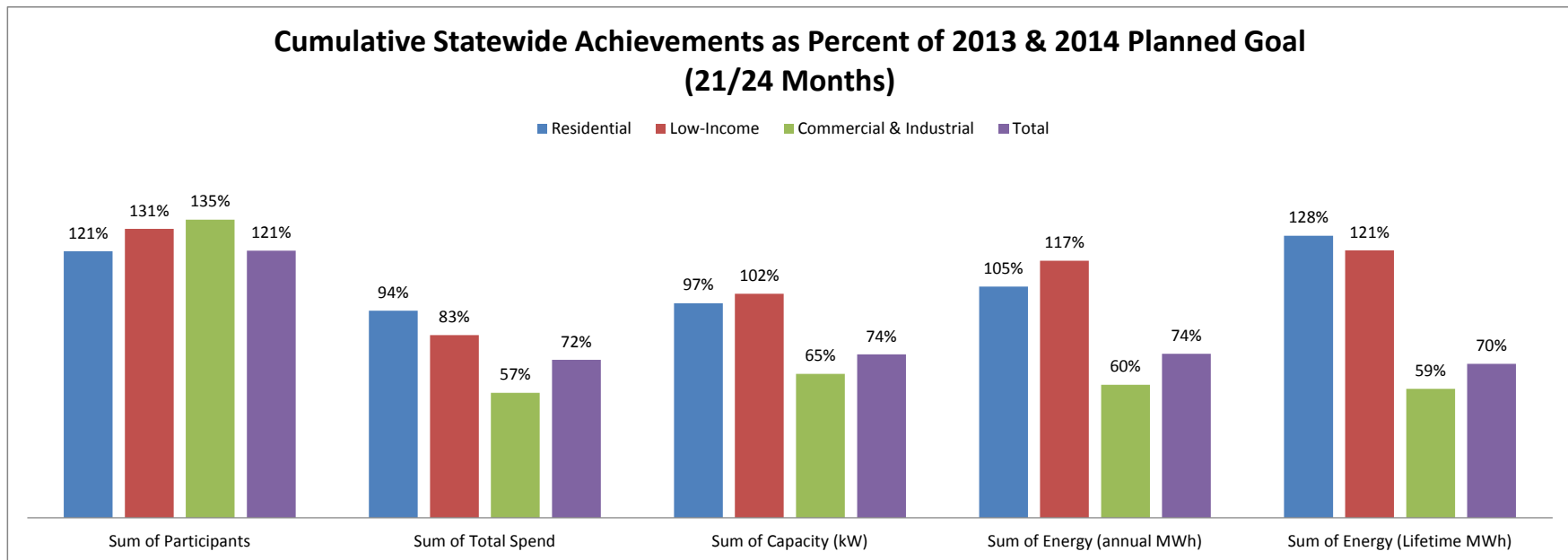
### Q3 2014 Statewide Electric Summary (January 1, 2014 through September 30, 2014 )

Values					
Row Labels	Sum of Participants	Sum of Total Spend	Sum of Capacity (kW)	Sum of Energy (annual MWh)	Sum of Energy (Lifetime MWh)
<b>Electric</b>					
<b>Planned</b>	2,303,685	496,018,277	177,696	1,236,598	13,268,628
Residential	2,259,817	162,852,400	45,584	364,571	1,952,344
Low-Income	27,488	54,923,703	3,246	27,759	260,056
Commercial & Industrial	16,380	278,242,174	128,866	844,268	11,056,228
<b>Q3</b>	2,682,240	273,279,967	107,446	739,952	6,782,490
Residential	2,629,111	124,254,889	47,187	354,094	2,368,487
Low-Income	31,829	39,954,841	3,267	32,907	312,529
Commercial & Industrial	21,300	109,070,237	56,991	352,951	4,101,475
<b>YTD as % of Planned</b>	<b>116%</b>	<b>55%</b>	<b>60%</b>	<b>60%</b>	<b>51%</b>
Residential	116%	76%	104%	97%	121%
Low-Income	116%	73%	101%	119%	120%
Commercial & Industrial	130%	39%	44%	42%	37%



## Cumulative Statewide Electric Summary (January 1, 2013 through September 30, 2014 )

Values					
Row Labels	Sum of Participants	Sum of Total Spend	Sum of Capacity (kW)	Sum of Energy (annual MWh)	Sum of Energy (Lifetime MWh)
<b>Electric</b>					
<b>Planned</b>	4,508,565	977,881,110	351,048	2,431,785	26,415,256
Residential	4,420,341	316,634,891	88,557	694,362	3,844,724
Low-Income	55,367	109,060,537	6,579	56,596	525,072
Commercial & Industrial	32,857	552,185,683	255,912	1,680,826	22,045,460
Q3	5,458,512	700,384,747	260,020	1,808,924	18,455,553
Residential	5,341,518	297,363,037	86,181	727,981	4,916,470
Low-Income	72,553	90,288,705	6,683	65,982	636,744
Commercial & Industrial	44,441	312,733,005	167,156	1,014,961	12,902,339
<b>YTD as % of Planned</b>	<b>121%</b>	<b>72%</b>	<b>74%</b>	<b>74%</b>	<b>70%</b>
Residential	121%	94%	97%	105%	128%
Low-Income	131%	83%	102%	117%	121%
Commercial & Industrial	135%	57%	65%	60%	59%

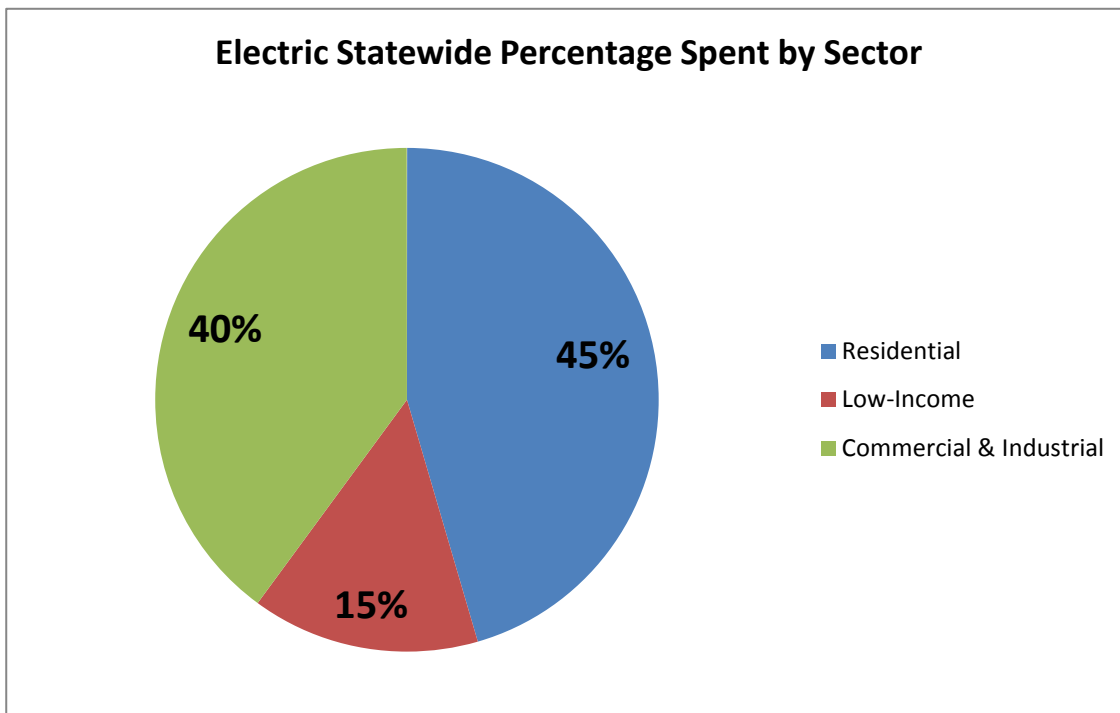
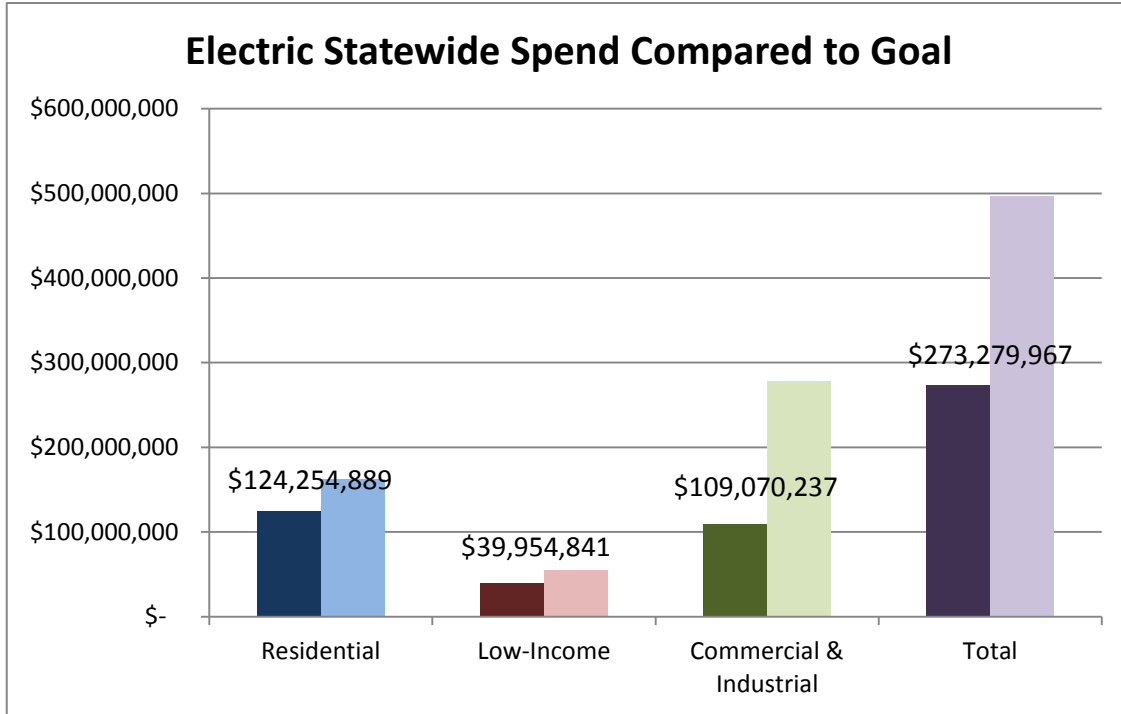


**Q3 2014 Statewide Electric Summary by PA (January 1, 2014 through September 30, 2014 )**

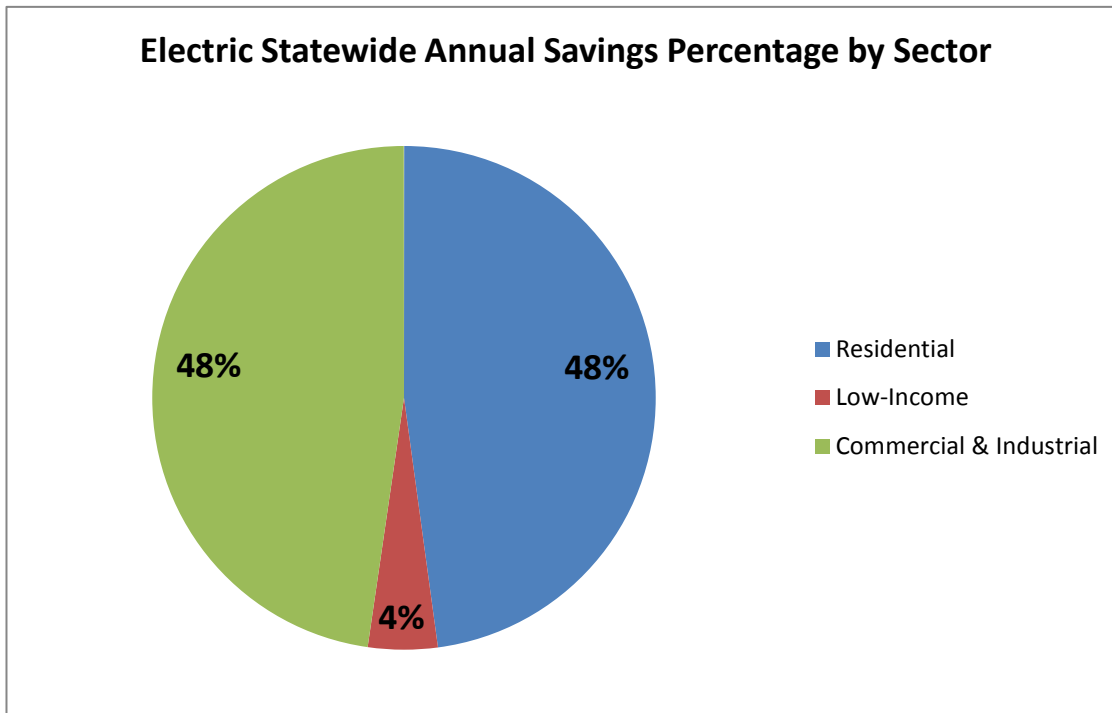
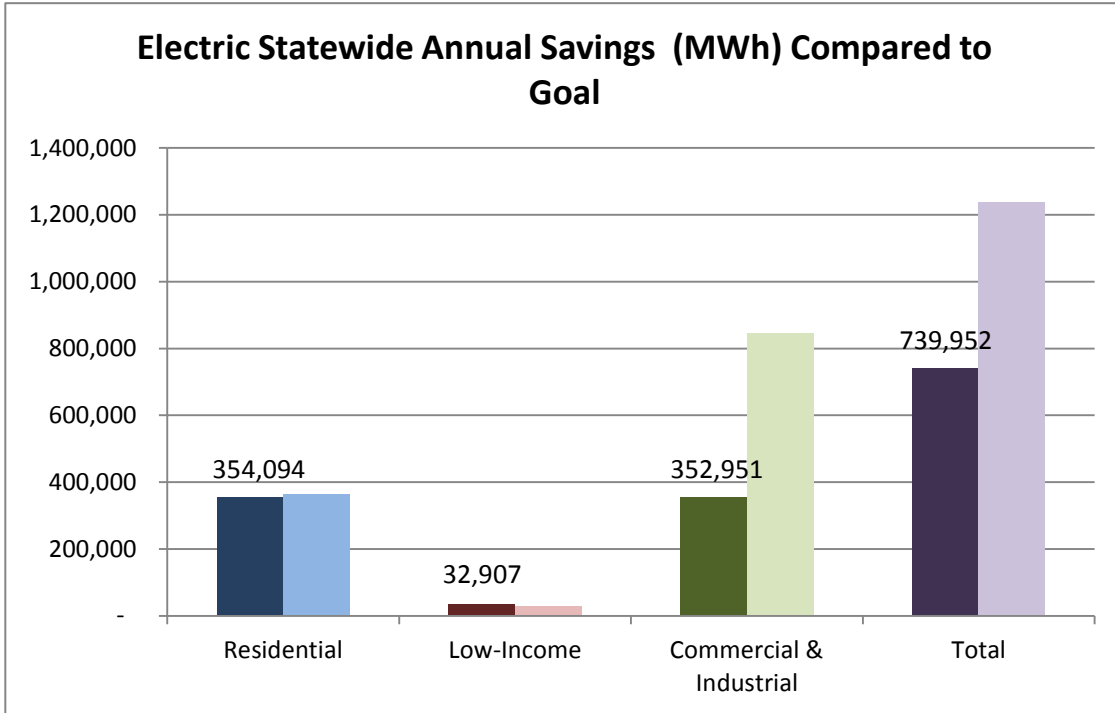
Sum of Energy (Lifetime MWh) Row Labels	Column Labels						Grand Total
	National Grid	NU (NSTAR)	NU (WMECo)	UNITIL	CLC		
<b>Electric</b>							
<b>Planned</b>	5,817,093	5,997,794	971,290	98,526	383,925	13,268,628	
Residential	925,789	674,578	191,456	9,412	151,108	1,952,344	
Residential Whole House	332,517	203,773	58,430	1,481	69,782	665,982	
Residential New Construction	26,664	17,899	2,147	496	3,508	50,714	
Residential Multi-Family Retrofit	95,822	59,509	4,364	366	21,111	181,172	
Residential Home Energy Services	109,675	98,636	40,805	619	44,718	294,453	
Residential Behavior/Feedback	100,356	27,729	11,115	-	444	139,644	
Residential Products	593,272	470,806	133,026	7,931	81,327	1,286,362	
Residential Cooling & Heating Equipment	30,090	33,885	6,876	455	11,133	82,438	
Residential Lighting	505,257	387,702	118,667	6,272	55,977	1,073,875	
Residential Consumer Products	57,925	49,219	7,484	1,204	14,216	130,048	
Residential Hard-to-Measure	-	-	-	-	-	-	
Low-Income	116,194	90,369	37,874	3,317	12,302	260,056	
Low-Income Whole House	116,194	90,369	37,874	3,317	12,302	260,056	
Low-Income New Construction	4,725	4,082	1,252	233	354	10,646	
Low-Income Single Family Retrofit	54,581	36,091	13,279	877	9,642	114,470	
Low-Income Multi-Family Retrofit	56,888	50,196	23,342	2,207	2,307	134,940	
Low-Income Hard-to-Measure	-	-	-	-	-	-	
Commercial & Industrial	4,775,110	5,232,847	741,960	85,796	220,514	11,056,228	
C&I New Construction	1,129,844	1,067,257	123,358	11,167	77,419	2,409,045	
C&I New Construction	1,129,844	1,067,257	123,358	11,167	77,419	2,409,045	
C&I Retrofit	3,645,266	4,165,591	618,602	74,629	143,096	8,647,183	
C&I Retrofit	3,270,198	3,544,402	277,987	50,698	67,326	7,210,612	
C&I Direct Install	375,067	621,189	340,615	23,930	75,770	1,436,571	
C&I Hard-to-Measure	-	-	-	-	-	-	
Q3	3,085,890	2,667,830	615,508	70,238	343,025	6,782,490	
Residential	1,066,606	875,747	303,155	11,938	111,041	2,368,487	
Residential Whole House	345,096	278,667	57,478	3,879	45,737	730,857	
Residential New Construction	24,954	33,126	2,415	2,279	5,635	68,408	
Residential Multi-Family Retrofit	98,203	66,264	5,366	-	3,828	173,661	
Residential Home Energy Services	147,937	155,625	45,852	1,600	36,275	387,289	
Residential Behavior/Feedback	74,002	23,652	3,845	-	-	101,499	
Residential Products	721,510	597,080	245,677	8,059	65,304	1,637,630	
Residential Cooling & Heating Equipment	45,363	40,312	11,571	1,159	14,466	112,871	
Residential Lighting	640,584	531,054	225,916	6,220	46,235	1,450,010	
Residential Consumer Products	35,563	25,714	8,190	679	4,603	74,749	
Residential Hard-to-Measure	-	-	-	-	-	-	
Low-Income	137,609	126,628	36,388	2,347	9,557	312,529	
Low-Income Whole House	137,609	126,628	36,388	2,347	9,557	312,529	
Low-Income New Construction	458	756	66	-	108	1,388	
Low-Income Single Family Retrofit	48,349	28,693	10,216	408	8,638	96,304	
Low-Income Multi-Family Retrofit	88,802	97,179	26,106	1,938	811	214,836	
Low-Income Hard-to-Measure	-	-	-	-	-	-	
Commercial & Industrial	1,881,675	1,665,455	275,965	55,953	222,427	4,101,475	
C&I New Construction	1,010,157	799,728	170,467	13,529	98,861	2,092,742	
C&I New Construction	1,010,157	799,728	170,467	13,529	98,861	2,092,742	
C&I Retrofit	871,518	865,727	105,498	42,424	123,566	2,008,733	
C&I Retrofit	652,687	524,954	52,123	28,031	72,431	1,330,226	
C&I Direct Install	218,831	340,773	53,375	14,393	51,135	678,507	
C&I Hard-to-Measure	-	-	-	-	-	-	

Year	National Grid	NU (NSTAR)	NU (WMECo)	UNITIL	CLC	Grand Total
<b>YTD as Percentage to Planned</b>						
<b>Electric</b>	<b>53%</b>	<b>44%</b>	<b>63%</b>	<b>71%</b>	<b>89%</b>	<b>51%</b>
Residential	115%	130%	158%	127%	73%	121%
1. Residential Whole House	104%	137%	98%	262%	66%	110%
1a. Residential New Construction	94%	185%	113%	460%	161%	135%
1b. Residential Multi-Family Retrofit	102%	111%	123%	0%	18%	96%
1c. Residential Home Energy Services	135%	158%	112%	258%	81%	132%
1d. Residential Behavior/Feedback	74%	85%	35%	0%	0%	73%
2. Residential Products	122%	127%	185%	102%	80%	127%
2a. Residential Cooling & Heating Equipment	151%	119%	168%	255%	130%	137%
2b. Residential Lighting	127%	137%	190%	99%	83%	135%
2c. Residential Consumer Products	61%	52%	109%	56%	32%	57%
3. Residential Hard to Measure	0%	0%	0%	0%	0%	0%
Low-Income	118%	140%	96%	71%	78%	120%
4. Low-Income Whole House	118%	140%	96%	71%	78%	120%
4a. Low-Income New Construction	10%	19%	5%	0%	31%	13%
4b. Low-Income Single Family Retrofit	89%	80%	77%	47%	90%	84%
4c. Low-Income Multi-Family Retrofit	156%	194%	112%	88%	35%	159%
5. Low Income Hard to Measure	0%	0%	0%	0%	0%	0%
Commercial & Industrial	39%	32%	37%	65%	101%	37%
6. C&I New Construction	89%	75%	138%	121%	128%	87%
6a. C&I New Construction	89%	75%	138%	121%	128%	87%
7. C&I Retrofit	24%	21%	17%	57%	86%	23%
7a. C&I Retrofit	20%	15%	19%	55%	108%	18%
7b. C&I Direct Install	58%	55%	16%	60%	67%	47%
8. C&I Hard to Measure	0%	0%	0%	0%	0%	0%

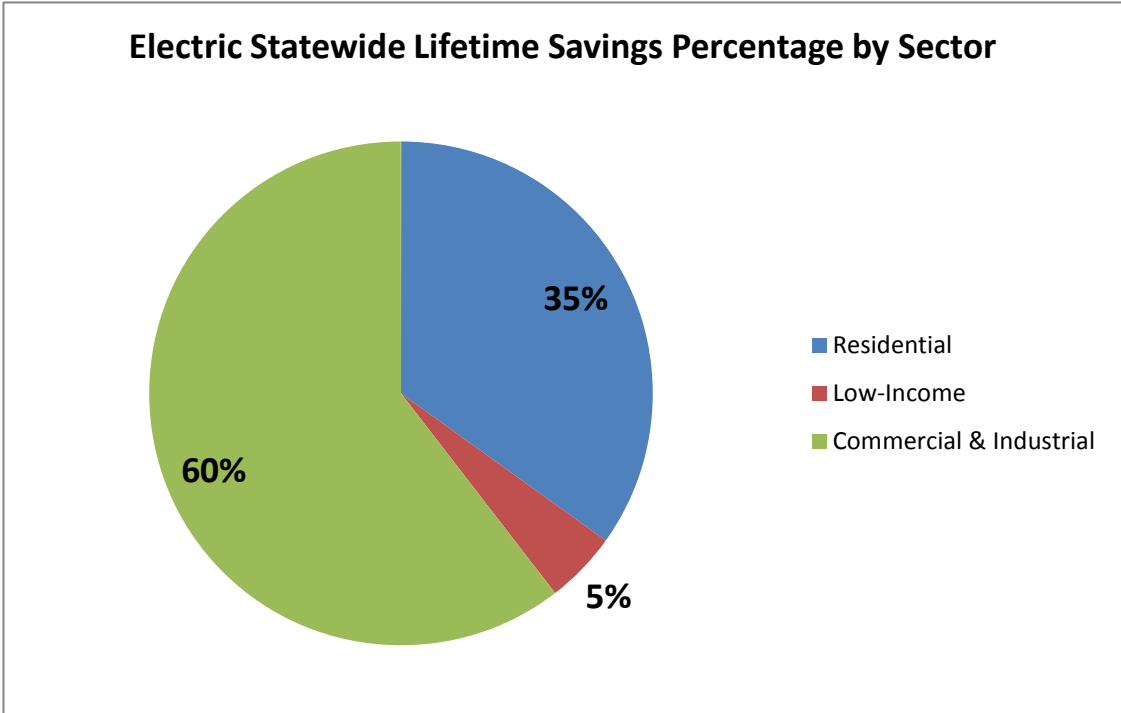
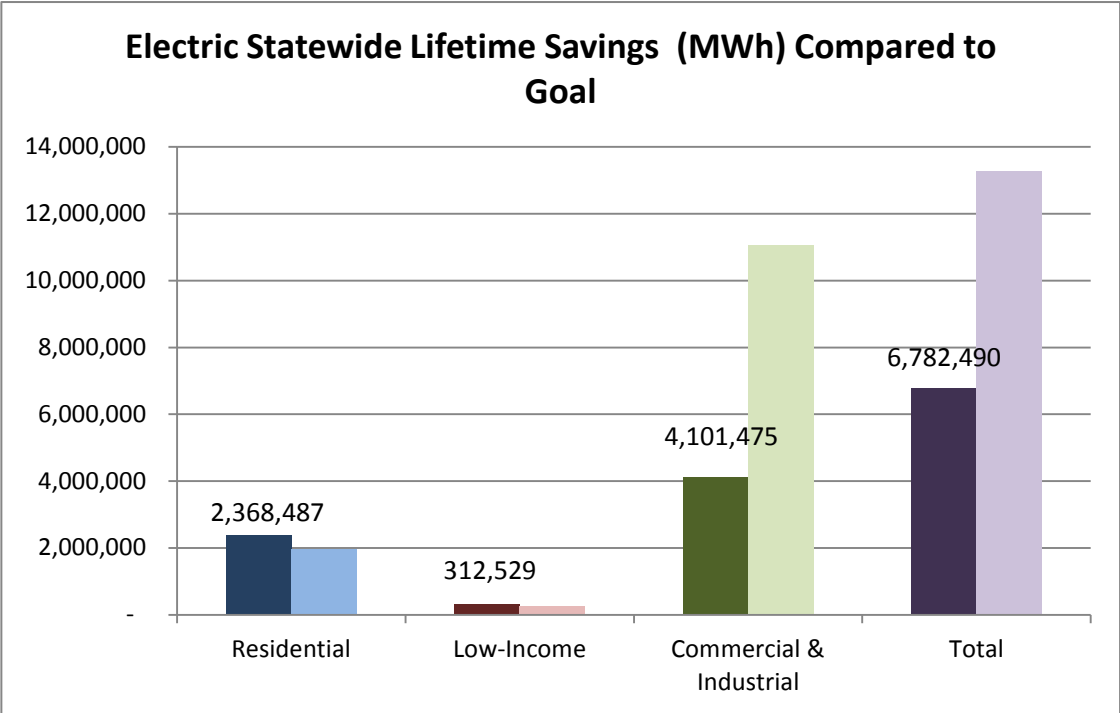
# ELECTRIC STATEWIDE BUDGETS, Q3 2014



# ANNUAL ELECTRIC STATEWIDE SAVINGS, Q3 2014



# LIFETIME ELECTRIC STATEWIDE SAVINGS, Q3 2014



**Q3 2014 Statewide Gas Budgets (January 1, 2014 through September 30, 2014 )**

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
<b>Gas</b>						
<b>Planned</b>	\$ 9,005,073	\$ 8,695,386	\$ 122,216,437	\$ 27,469,623	\$ 7,248,953	\$ 174,635,473
Residential	\$ 4,301,814	\$ 4,612,595	\$ 59,287,082	\$ 15,107,397	\$ 3,593,781	\$ 86,902,669
Residential Whole House	\$ 2,417,192	\$ 1,607,933	\$ 38,771,296	\$ 12,767,901	\$ 2,400,734	\$ 57,965,055
Residential Products	\$ 1,030,984	\$ 2,095,199	\$ 19,384,415	\$ 2,014,832	\$ 1,075,163	\$ 25,600,593
Residential Hard-to-Measure	\$ 853,638	\$ 909,463	\$ 1,131,371	\$ 324,663	\$ 117,884	\$ 3,337,020
Low-Income	\$ 2,223,449	\$ 1,575,031	\$ 24,559,473	\$ 6,089,880	\$ 1,480,506	\$ 35,928,339
Low-Income Whole House	\$ 1,422,891	\$ 1,403,849	\$ 24,559,473	\$ 6,089,880	\$ 1,444,978	\$ 34,921,072
Low-Income Hard-to-Measure	\$ 800,557	\$ 171,182	\$ -	\$ -	\$ 35,528	\$ 1,007,267
Commercial & Industrial	\$ 2,479,810	\$ 2,507,761	\$ 38,369,882	\$ 6,272,346	\$ 2,174,666	\$ 51,804,465
C&I New Construction	\$ 804,253	\$ 942,394	\$ 15,139,664	\$ 1,827,748	\$ 779,817	\$ 19,493,876
C&I Retrofit	\$ 1,289,619	\$ 1,077,525	\$ 23,230,218	\$ 4,401,912	\$ 1,336,139	\$ 31,335,413
C&I Hard-to-Measure	\$ 385,938	\$ 487,842	\$ -	\$ 42,686	\$ 58,710	\$ 975,177
<b>Q3</b>	\$ 6,664,959	\$ 4,011,460	\$ 65,663,321	\$ 17,563,320	\$ 2,264,052	\$ 96,167,112
Residential	\$ 3,148,212	\$ 2,552,811	\$ 38,053,940	\$ 10,656,977	\$ 1,164,669	\$ 55,576,608
Residential Whole House	\$ 1,800,551	\$ 908,884	\$ 25,100,307	\$ 9,900,710	\$ 493,423	\$ 38,203,874
Residential Products	\$ 636,999	\$ 969,034	\$ 12,559,870	\$ 648,241	\$ 587,998	\$ 15,402,143
Residential Hard-to-Measure	\$ 710,663	\$ 674,893	\$ 393,763	\$ 108,025	\$ 83,247	\$ 1,970,590
Low-Income	\$ 1,299,556	\$ 219,184	\$ 19,165,725	\$ 4,137,858	\$ 228,930	\$ 25,051,251
Low-Income Whole House	\$ 1,042,674	\$ 102,964	\$ 19,165,725	\$ 4,092,533	\$ 221,525	\$ 24,625,420
Low-Income Hard-to-Measure	\$ 256,882	\$ 116,220	\$ -	\$ 45,326	\$ 7,405	\$ 425,831
Commercial & Industrial	\$ 2,217,191	\$ 1,239,465	\$ 8,443,656	\$ 2,768,484	\$ 870,453	\$ 15,539,254
C&I New Construction	\$ 614,186	\$ 491,567	\$ 4,139,792	\$ 838,377	\$ 287,107	\$ 6,371,032
C&I Retrofit	\$ 991,328	\$ 351,355	\$ 4,303,864	\$ 1,914,963	\$ 529,881	\$ 8,091,392
C&I Hard-to-Measure	\$ 611,677	\$ 396,543	\$ -	\$ 15,144	\$ 53,465	\$ 1,076,830

YTD AS PERCENTAGE OF	Program Planning and Administration	Marketing and Advertising	Participant Incentive	Sales, Technical Assistance & Training	Evaluation and Market Research	Total Spend
<b>Gas</b>	<b>74%</b>	<b>46%</b>	<b>54%</b>	<b>64%</b>	<b>31%</b>	<b>55%</b>
<b>Residential</b>	<b>73%</b>	<b>55%</b>	<b>64%</b>	<b>71%</b>	<b>32%</b>	<b>64%</b>
1. Residential Whole House	74%	57%	65%	78%	21%	66%
2. Residential Products	62%	46%	65%	32%	55%	60%
3. Residential Hard-to-Measure	83%	74%	35%	33%	71%	59%
<b>Low-Income</b>	<b>58%</b>	<b>14%</b>	<b>78%</b>	<b>68%</b>	<b>15%</b>	<b>70%</b>
4. Low-Income Whole House	73%	7%	78%	67%	15%	71%
5. Low-Income Hard-to-Measure	32%	68%	0%	0%	21%	42%
<b>Commercial &amp; Industrial</b>	<b>89%</b>	<b>49%</b>	<b>22%</b>	<b>44%</b>	<b>40%</b>	<b>30%</b>
6. C&I New Construction	76%	52%	27%	46%	37%	33%
7. C&I Retrofit	77%	33%	19%	44%	40%	26%
8. C&I Hard-to-Measure	158%	81%	0%	35%	91%	110%



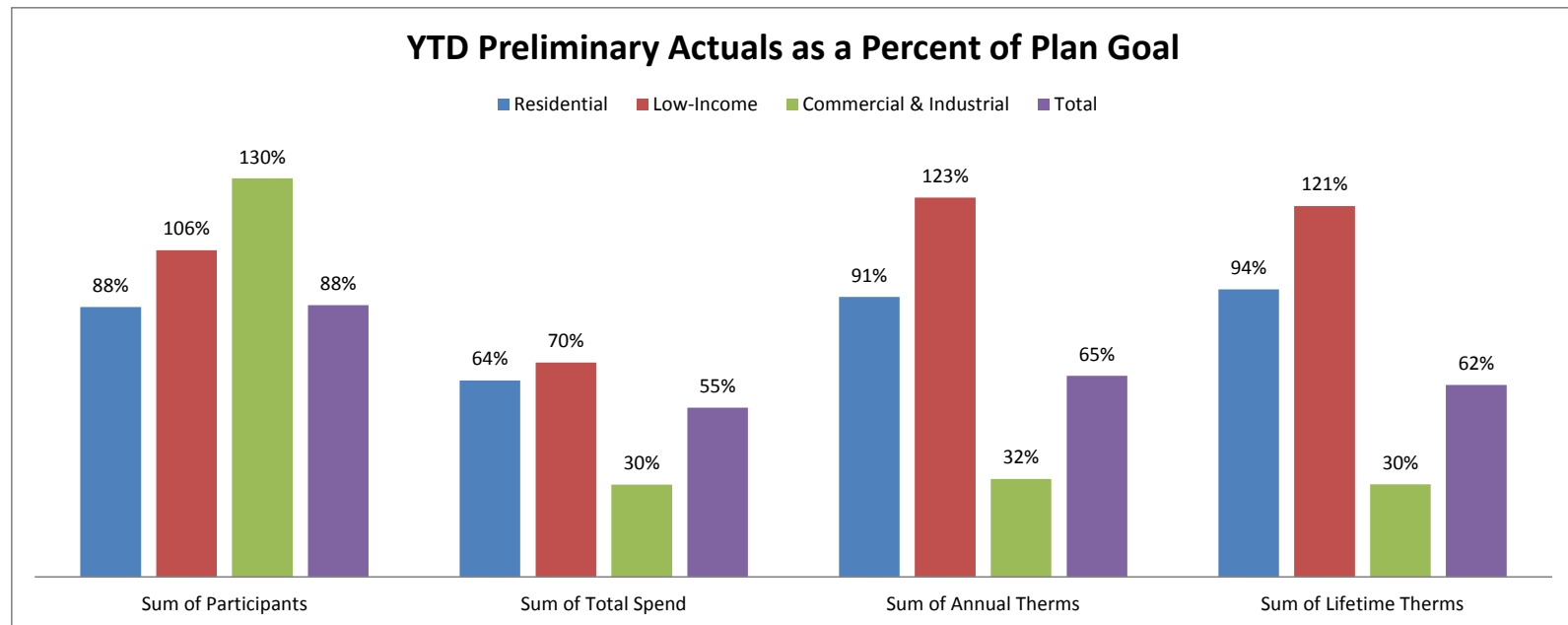
**Q3 2014 Statewide Gas Savings (January 1, 2014 through September 30, 2014 )**

	Total Sum of Participants	Total Sum of Annual Therms	Total Sum of Lifetime Therms
<b>Gas</b>			
<b>Planned</b>	560,883	24,402,858	312,695,505
Residential	549,029	11,607,811	119,006,292
Residential Whole House	520,561	9,438,886	78,143,626
Residential New Construction	1,781	372,139	8,723,534
Residential Multi-Family Retrofit	8,688	546,385	9,406,167
Residential Home Energy Services	34,409	2,825,512	54,319,076
Residential Behavior/Feedback	475,683	5,694,849	5,694,849
Residential Products	28,468	2,168,925	40,862,666
Residential Heating & Water Heating	28,468	2,168,925	40,862,666
Low-Income	6,840	1,439,072	28,354,751
Low-Income Whole House	6,840	1,439,072	28,354,751
Low-Income Single Family Retrofit	2,484	827,356	16,852,525
Low-Income Multi-Family Retrofit	4,356	611,716	11,502,225
Commercial & Industrial	5,015	11,355,976	165,334,462
C&I New Construction	1,715	3,892,978	74,127,477
C&I New Construction	1,715	3,892,978	74,127,477
C&I Retrofit	3,300	7,462,997	91,206,986
C&I Retrofit	2,173	7,143,505	88,120,031
C&I Direct Install	1,127	319,492	3,086,955
<b>Q3</b>	496,204	15,979,206	195,404,989
Residential	482,430	10,577,605	111,318,494
Residential Whole House	460,658	8,372,205	74,163,821
Residential New Construction	2,750	1,176,726	25,873,591
Residential Multi-Family Retrofit	7,822	301,218	5,265,583
Residential Home Energy Services	19,861	1,987,917	38,118,302
Residential Behavior/Feedback	430,225	4,906,345	4,906,345
Residential Products	21,772	2,205,399	37,154,673
Residential Heating & Water Heating	21,772	2,205,399	37,154,673
Low-Income	7,272	1,776,353	34,230,874
Low-Income Whole House	7,272	1,776,353	34,230,874
Low-Income Single Family Retrofit	1,843	455,554	9,151,590
Low-Income Multi-Family Retrofit	5,429	1,320,799	25,079,284
Commercial & Industrial	6,502	3,625,248	49,855,621
C&I New Construction	696	1,424,340	29,259,641
C&I New Construction	696	1,424,340	29,259,641
C&I Retrofit	5,806	2,200,908	20,595,981
C&I Retrofit	5,311	2,088,068	19,557,549
C&I Direct Install	495	112,840	1,038,432

<b>YTD AS PERCENTAGE OF Planned</b>	<b>Participants</b>	<b>Annual Therms</b>	<b>Lifetime Therms</b>
<b>Gas</b>	<b>88%</b>	<b>65%</b>	<b>62%</b>
<b>Residential</b>	<b>88%</b>	<b>91%</b>	<b>94%</b>
<b>Residential Whole House</b>	<b>88%</b>	<b>89%</b>	<b>95%</b>
Residential New Construction	154%	316%	297%
Residential Multi-Family Retrofit	90%	55%	56%
Residential Home Energy Services	58%	70%	70%
Residential Behavior/Feedback	90%	86%	86%
<b>Residential Products</b>	<b>76%</b>	<b>102%</b>	<b>91%</b>
Residential Heating & Water Heating	76%	102%	91%
Low-Income	106%	123%	121%
<b>Low-Income Whole House</b>	<b>106%</b>	<b>123%</b>	<b>121%</b>
Low-Income Single Family Retrofit	74%	55%	54%
Low-Income Multi-Family Retrofit	125%	216%	218%
Commercial & Industrial	130%	32%	30%
<b>C&amp;I New Construction</b>	<b>41%</b>	<b>37%</b>	<b>39%</b>
C&I New Construction	41%	37%	39%
<b>C&amp;I Retrofit</b>	<b>176%</b>	<b>29%</b>	<b>23%</b>
C&I Retrofit	244%	29%	22%
C&I Direct Install	44%	35%	34%

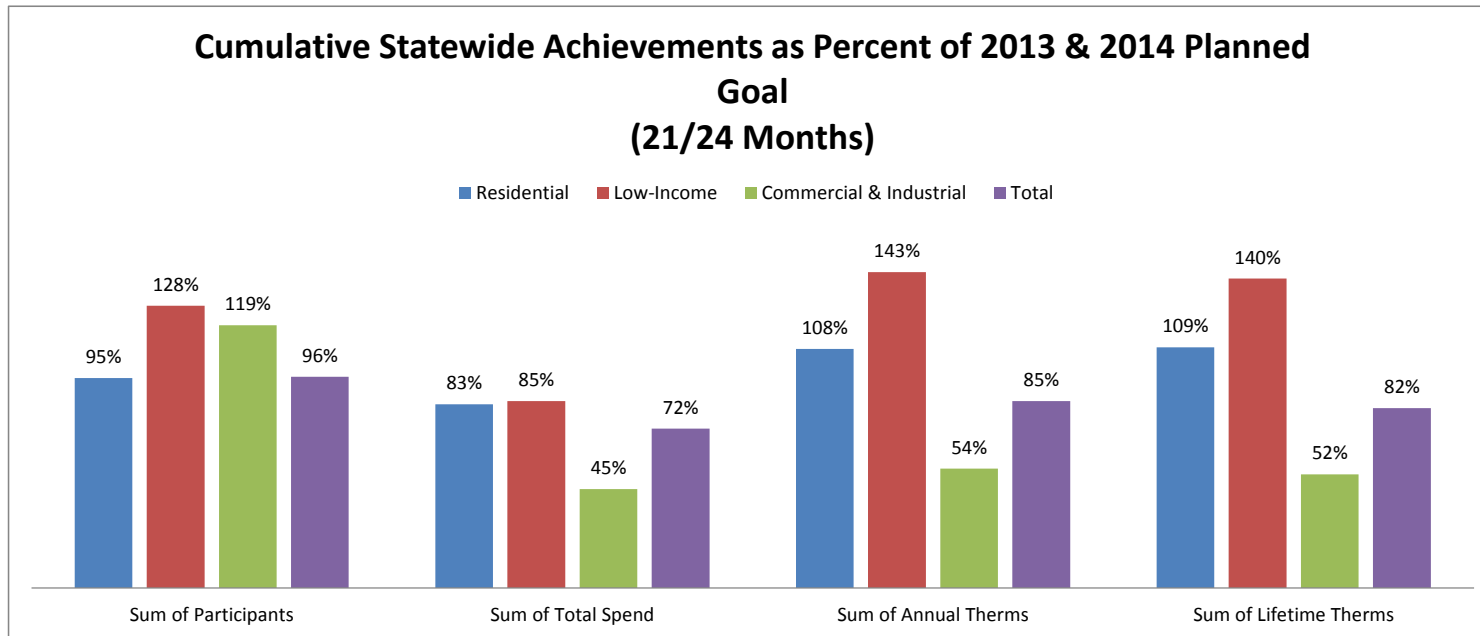
### Q3 2014 Statewide Gas Summary (January 1, 2014 through September 30, 2014 )

Row Labels	Values			
	Sum of Participants	Sum of Total Spend	Sum of Annual Therms	Sum of Lifetime Therms
<b>Gas</b>				
<b>Planned</b>	560,883	\$ 174,635,473	24,402,858	312,695,505
Residential	549,029	\$ 86,902,669	11,607,811	119,006,292
Low-Income	6,840	\$ 35,928,339	1,439,072	28,354,751
Commercial & Industrial	5,015	\$ 51,804,465	11,355,976	165,334,462
<b>Q3</b>	496,204	96,167,112	15,979,206	195,404,989
Residential	482,430	55,576,608	10,577,605	111,318,494
Low-Income	7,272	25,051,251	1,776,353	34,230,874
Commercial & Industrial	6,502	15,539,254	3,625,248	49,855,621
<b>YTD as % of Planned</b>	<b>88%</b>	<b>55%</b>	<b>65%</b>	<b>62%</b>
Residential	88%	64%	91%	94%
Low-Income	106%	70%	123%	121%
Commercial & Industrial	130%	30%	32%	30%



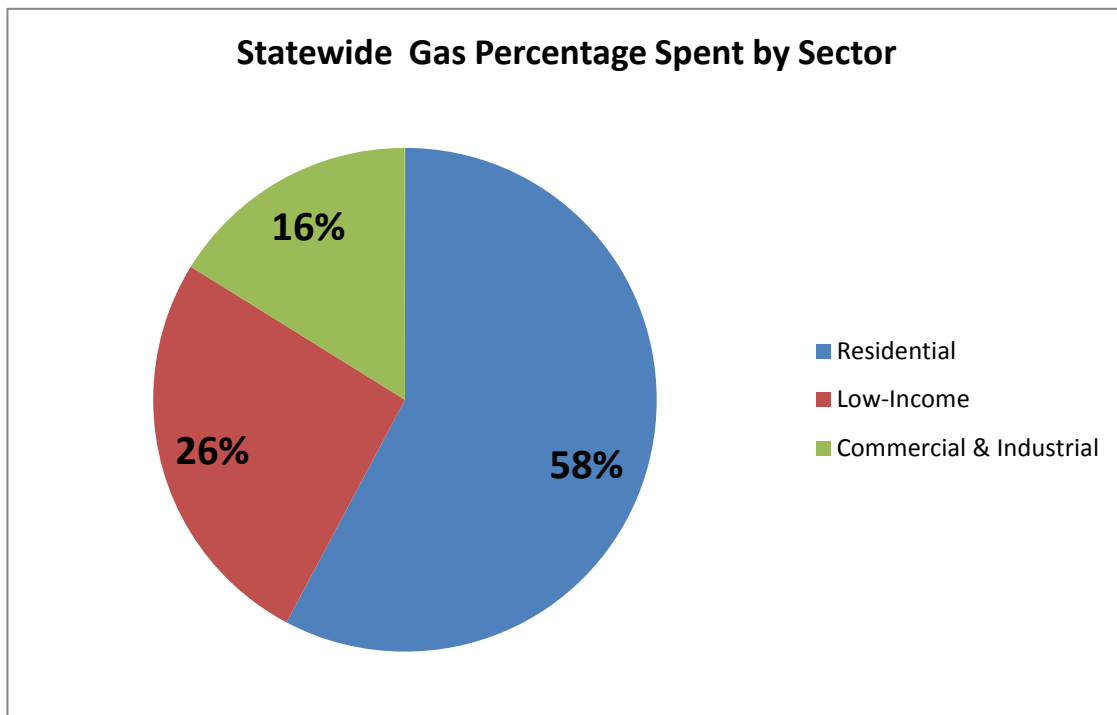
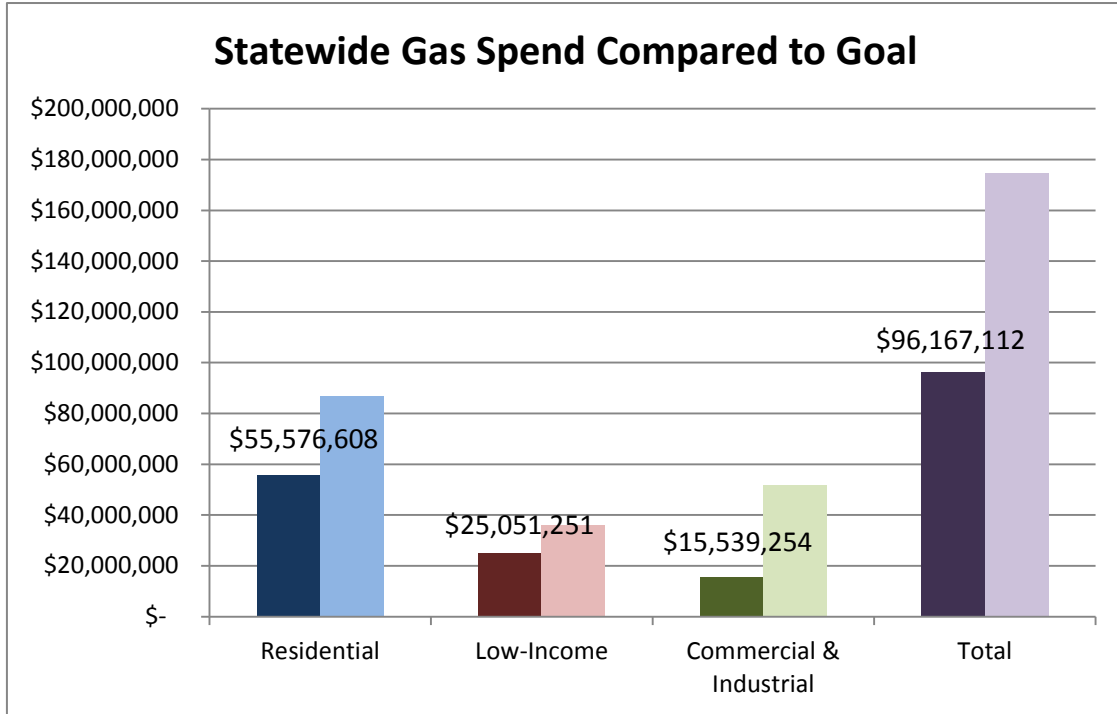
## Cumulative Statewide Gas Summary (January 1, 2013 through September 30, 2014 )

Row Labels	Values			
	Sum of Participants	Sum of Total Spend	Sum of Annual Therms	Sum of Lifetime Therms
<b>Gas</b>				
<b>Planned</b>	1,110,071	343,115,888	47,065,357	616,220,468
Residential	1,086,719	171,688,550	21,898,593	235,619,596
Low-Income	13,484	70,337,314	2,836,815	55,869,680
Commercial & Industrial	9,868	101,090,025	22,329,949	324,731,193
<b>Q3</b>	1,064,235	247,972,465	39,903,279	503,041,311
Residential	1,035,212	142,965,247	23,750,666	257,224,913
Low-Income	17,265	59,634,819	4,061,902	78,364,712
Commercial & Industrial	11,758	45,372,399	12,090,711	167,451,686
<b>YTD as % of Planned</b>	<b>96%</b>	<b>72%</b>	<b>85%</b>	<b>82%</b>
Residential	95%	83%	108%	109%
Low-Income	128%	85%	143%	140%
Commercial & Industrial	119%	45%	54%	52%

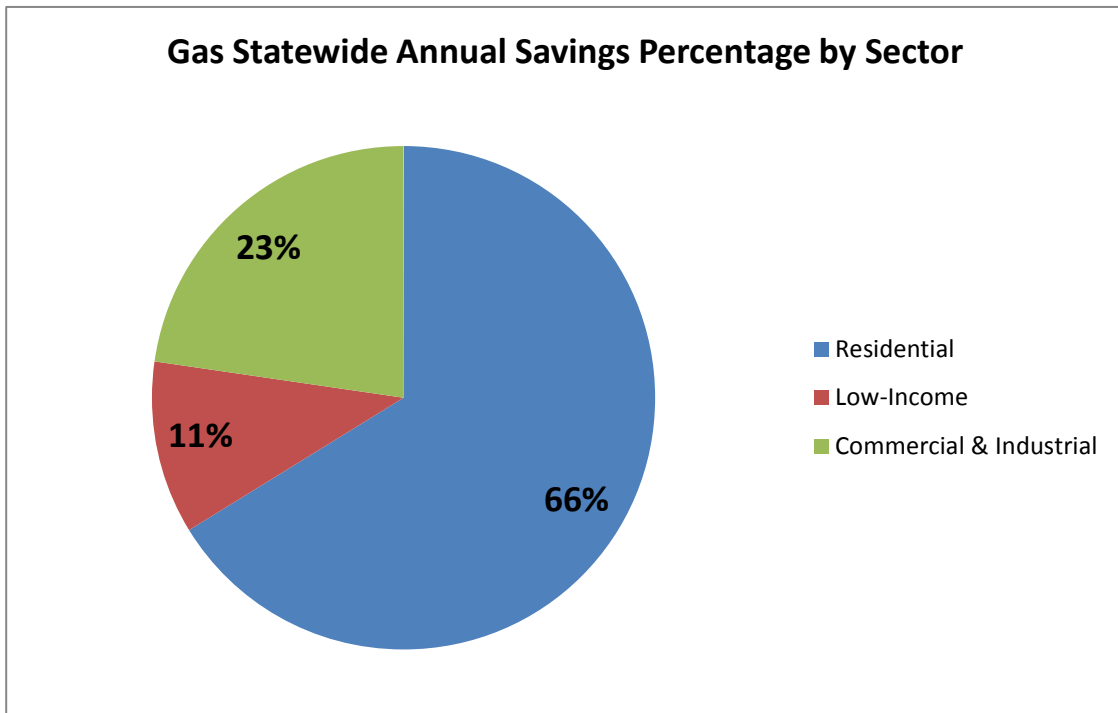
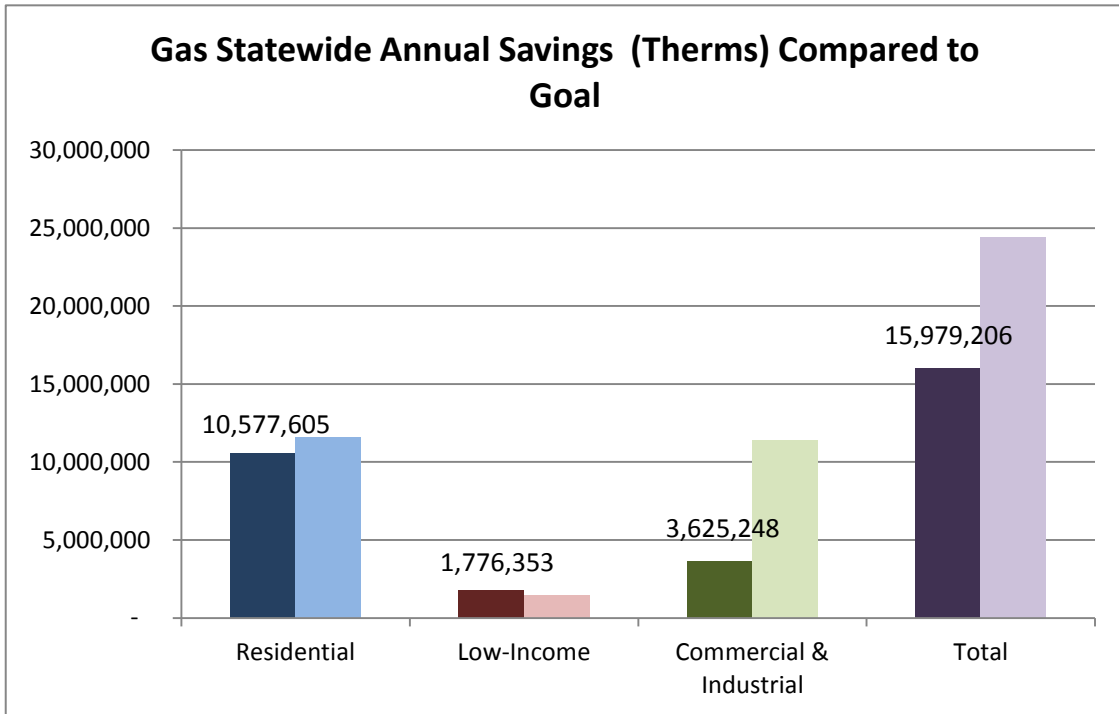




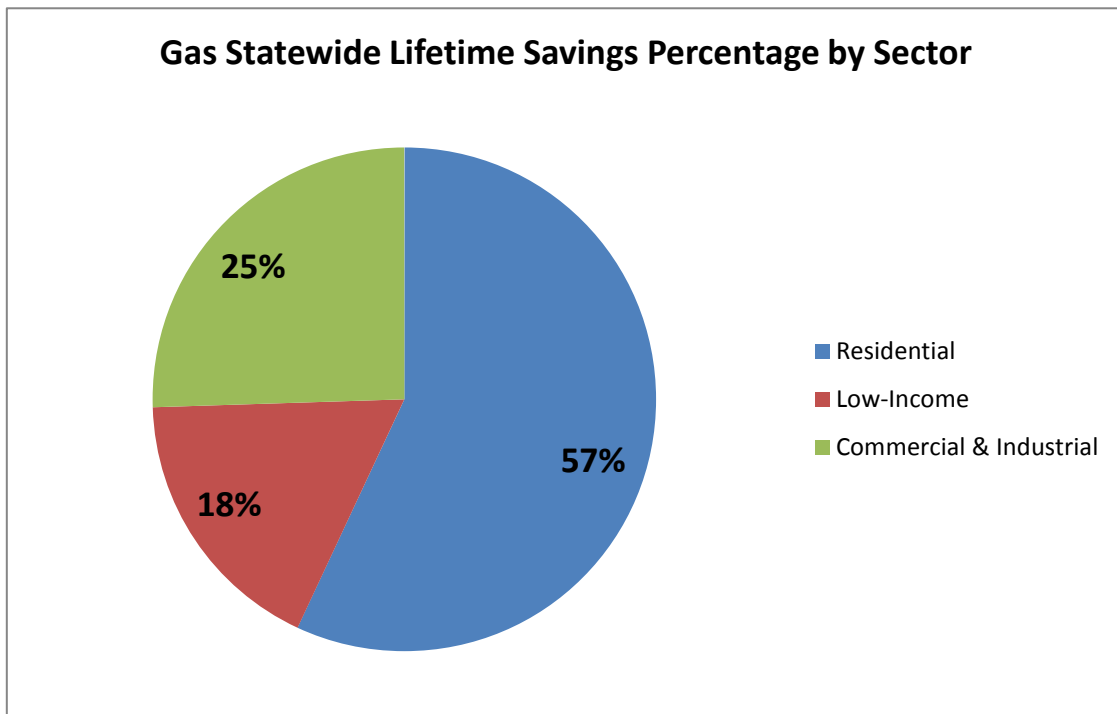
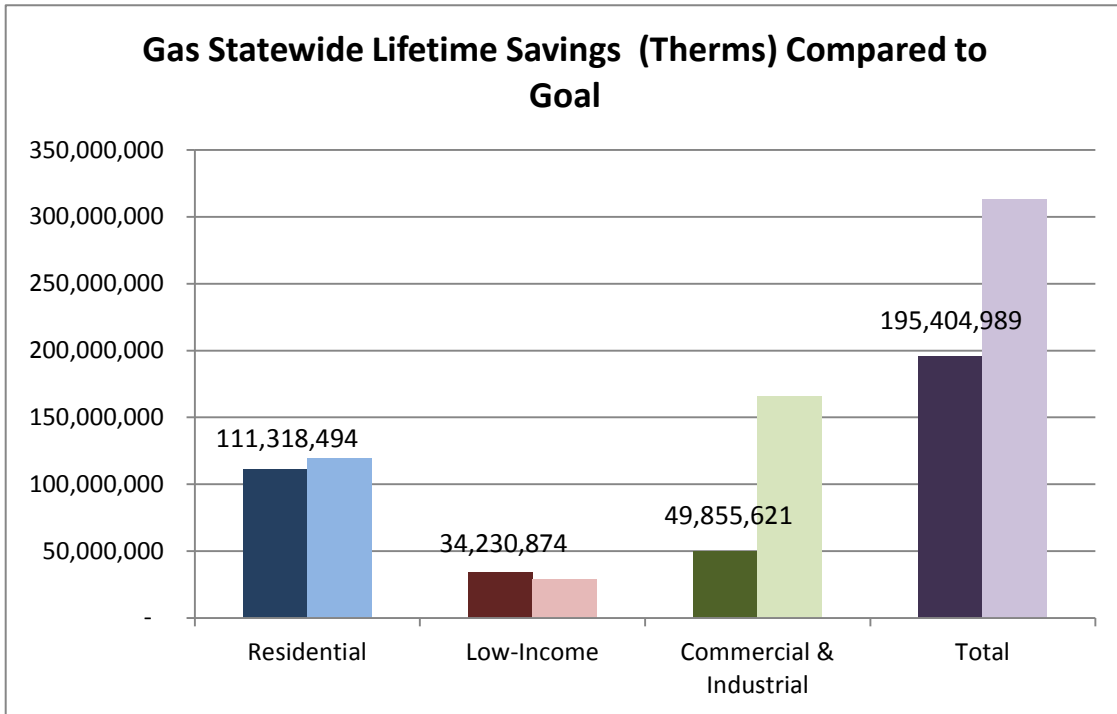
# GAS STATEWIDE BUDGETS, Q3 2014



# ANNUAL GAS STATEWIDE SAVINGS, Q3 2014

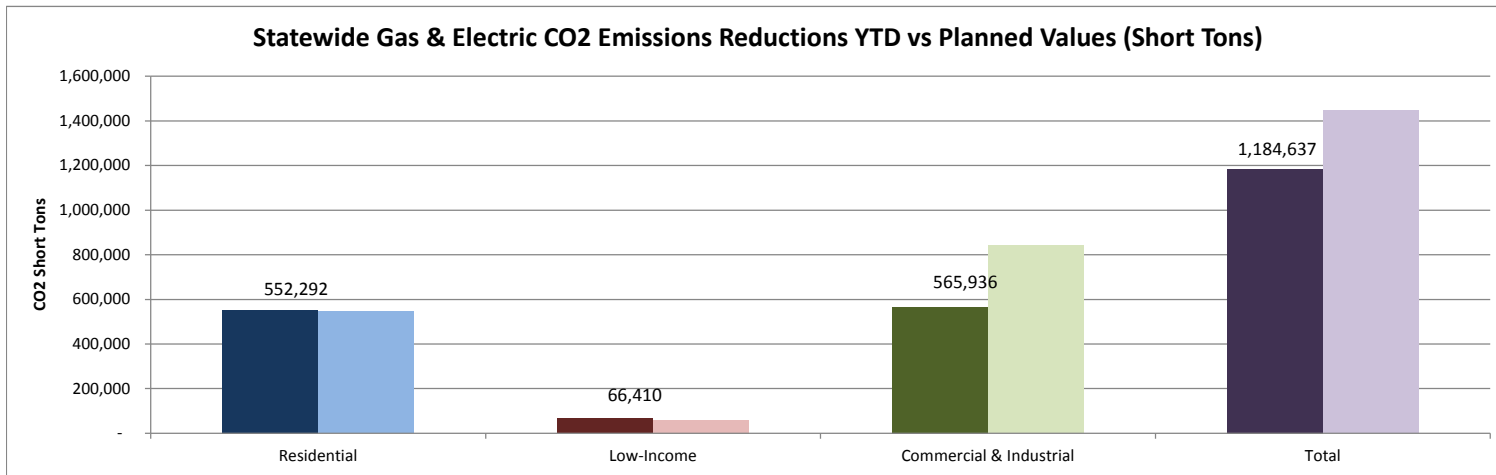


# LIFETIME GAS STATEWIDE SAVINGS, Q3 2014



### Cumulative Statewide Gas & Elec CO2 Emissions Reductions Summary (January 1, 2013 through September 30, 2014 )

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
<b>Planned</b>	<b>2,439,214</b>	<b>22,959,534</b>	<b>695,862</b>	<b>586</b>	<b>1,539</b>	<b>1,446,660</b>
Residential	700,361	22,268,430	680,427	168	442	545,862
Low-Income	57,895	2,956,863	149,619	14	37	59,187
Commercial & Industrial	1,680,958	(2,265,760)	(134,184)	404	1,060	841,611
<b>Q3</b>	<b>1,812,390</b>	<b>36,011,018</b>	<b>503,040</b>	<b>435</b>	<b>1,143</b>	<b>1,184,637</b>
Residential	730,719	24,015,965	439,669	175	461	552,292
Low-Income	66,681	4,074,787	102,006	16	42	66,410
Commercial & Industrial	1,014,990	7,920,266	(38,635)	244	640	565,936



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
Existing Buildings Market Characterization (P21)	C&I	Other	Erik Mellen	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 us	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 recommendatio	
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.	24 sites complete; 45 M&V plans submitted
C&I Code Compliance Follow-up (P24)	C&I	Other	Bill Blake	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 compliace 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.	
2012 C&I Customer Profile (P31)	C&I	Other	Whitney Brougher/Kim Crossman	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.	Draft report is out for comments
Learning From Successful Projects (P32)	C&I	Other	Erik Mellen	This study will examine the practices and/or characteristics that make a project succesful.	TBD	
How PA Differences Affect Program Outcomes (P33)	C&I	Other	Marie Abdou	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	

Study Name	Research Area	Study Type	Study Manager	Overall Evaluation Goal (Project Summary/Purpose)	Expected Outcomes	Current Notes
Commercial Real Estate Market Assessment (P34)	C&I	Other	Bill Blake	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	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.
Supply Side Population Characterization (P36)	C&I	Other	Erik Mellen	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).	
Direct Install Process Evaluation (P37)	C&I	Process	Dave Weber	Process Evaluation of the Direct Install program	TBD	
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.	
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.
Impact Evaluation of 2013 Custom Gas Installations (P43)	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	TBD	
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.

Study Name	Research Area	Study Type	Study Manager	Overall Evaluation Goal (Project Summary/Purpose)	Expected Outcomes	Current Notes
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	
2013 C&I Customer Profile	C&I	Other	Whitney Brougher/Kim Crossman	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 third year in a row.	
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 supp	
Lighting Saturation Stagnation Assessment	Resi	Market Characterization	Melanie Coen	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.	
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	
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.	
Ductless Mini-split Heat Pump Assessment	Resi	Impact	Matt Nelson	Determine participant intent in regard to installing ductless mini-split heat pumps (DMSHPs)	Results will support an impact evaluation of DMSHPs and other cooling measures, beginning in Q2 2014	
Cool Smart Impact	Resi	Impact	Matt Nelson	Determine gross energy savings for ductless mini-split heat pumps (DMSHPs)	Gross savings for DMSHPs	

Study Name	Research Area	Study Type	Study Manager	Overall Evaluation Goal (Project Summary/Purpose)	Expected Outcomes	Current Notes
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.	
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 inventory or the methods currently used to estimate LIMF savings, explore opportunities	TBD	
Low income multifamily impact Evaluation	Resi	Process/ Impact	Riley Hastings		Statewide methodology for calculating savings and PA-specific realization rates for appropriate	
Multifamily Process	Resi	Process	Kim Crossman	Assess and monitor the current state of the evolution of the Multifamily Program as a standalone or integrated offering with the commercial side and provide an ongoing examination of barriers, program operations, and customer experience.	Recommendations for improving program delivery	
Residential Customer Profile Study	Resi	Market Characterization	Mike Goldman	Compile utility and participant data on residential customers	Provide insights into levels of participation, energy consumption, and energy savings relative to consumption	
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.	workshops completed
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 - 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.	

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.