
Quarterly Report of the Program Administrators

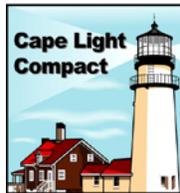
First Quarter, 2014

May 8, 2014

nationalgrid



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**QUARTERLY REPORT TO THE EEAC
QUARTER 1, 2014**

May 8, 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 first quarter of 2014.¹ This document presents narrative status updates regarding program implementation and specific areas of interest as requested by the Energy Efficiency Advisory Council (“EEAC” or “Council”), followed by quantitative data set forth at Attachment A and additional EM&V information set forth at Attachment B.

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

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¹ 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 Q1, the PAs actively participated in EEAC database working group and subcommittee meetings convened by Energy Platforms, the EEAC's database facilitator. The PAs provided comments on Energy Platforms' conceptual proposal on December 23, 2013. On January 9, 2014, Energy Platforms circulated to stakeholders a revised proposal for a statewide database. On January 22, 2014, Energy Platforms circulated a draft Vision Statement for the statewide database to the EEAC database working group and subcommittee members. On January 23, 2014, there was a meeting of the EEAC subcommittee, during which the Vision Statement was discussed. There were no EEAC database meetings in February or March. During this time, the PAs reviewed the specifications from Energy Platforms and researched on-line technical reference manual ("TRM") products. The PAs are committed to working with DOER, the EEAC, and the Department to achieve the development of a statewide database that achieves the goals of this priority. The PAs have budgeted \$500,000 in each year of the 2013-2015 Plan for the design and development of a statewide database and associated costs. In Q1, the PAs continued working on an interim data solution to assist in reporting while the statewide database is being scoped and developed. The PAs are currently developing an online interim statewide database that is user-friendly, effective and timely. The PAs expect this tool will improve access by stakeholders to currently reported PA data by providing a single source of information for the most up-to-date reported initiative-level PA data. This tool will provide PA data in different formats and views and will automate the statewide view from 12 individual PAs. The PAs have also agreed to issue a joint request for proposals for off-the-shelf TRM software and hope to have a TRM product operational this fall. The PAs look forward to discussing this tools and future functionality with stakeholders in 2014.

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 Q1, all PAs were engaged in efforts to increase C&I savings, including particular focus on CHP, segmentation, seeking deeper savings, new technology, hiring staff and adding vendors, and improving productivity. On March 17, 2014, the Program Administrators submitted an Implementation Update ("IU"). This set of data tables was designed to provide information to the Council

on a PA's current strategic thinking on the most likely future course to achieving three-year goals. The IUs provide updates on implementation approaches for 2014-2015 that were informed by the most recent and best available data for each Program Administrator, as well as a roll-up of this information that provided a statewide overview. The template for the IU tables was developed collaboratively by the PAs working with the Council's consultants and was endorsed by the Council in its November 12, 2013 resolution on DPU 11-120-A Reporting/Streamlining. The IU was developed for use in 2014, and was designed to allow the Council to monitor achievement against goals and to review forward-looking strategies to achieve goals based upon in-the-field experience and current EM&V results. The Program Administrators hosted a webinar on March 19th to assist interested parties in their review of the data, and presented at the EEAC on April 8, 2014. Based on the data in the IU files, the PAs and consultants are working on three "deeper dives" to further explore strategies in residential lighting, residential multi-family, and C&I large retrofit. The IU shows that expected achievement of goals is on target. Electric PAs expect to reach 98% of total lifetime savings and 90% of C&I lifetime savings. Gas PAs expect to reach 100% of total lifetime savings and 81% of C&I lifetime savings. As reflected in the IU, the major challenge in 2013 was Large C&I Retrofit. The PAs are committed to achieving stronger results in 2014 in the Large C&I Retrofit Program using the following strategies and tactics: 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 rely on other programs (including residential) as well to assist with reaching three-year portfolio goals. For additional detailed information on the efforts made by the PAs in Q1 toward achieving their savings and benefits goals, please see Sections III through VIII.

- 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 2014 Mass Save Awareness Campaign was launched in the first quarter. The goal of the campaign is to raise awareness of Mass Save by communicating that anyone can lower their energy bills and that the first step is to visit MassSave.com. The advertising campaign is designed to reach the Residential, Commercial & Industrial, Low Income and Multicultural (Spanish & Portuguese) audiences. The campaign will reach consumers statewide via multiple media channels. The media channels are scheduled to ensure that Mass Save will be in-market every week of the campaign from January 6-November 23. For additional information, please see Section V below. In addition, the 2013 Massachusetts Statewide Marketing Campaign Post-Campaign Results was recently completed. This study provides information on the results of the 2013 Massachusetts statewide marketing campaign and will assess awareness of Mass Save immediately after the 2013 marketing campaign concludes. For additional

information, please see Section V below. As discussed in more detail in Sections III through VIII, the PAs continued to build on the experience of the initial three-year plan by leveraging their good working relationships to better coordinate their efforts and share ideas and best practices to refine their approach to the successful delivery of energy efficiency. The PAs continued to have regular meetings of their management committees to facilitate the process of enhanced integration and coordination between gas and electric programs. The PAs also were actively engaged in the low-income best practices group convened by LEAN. Further, the PAs continued their ongoing and consistent meeting and engagement with the Council's consultants, in order to benefit from ideas/suggestions based on the consultants' expertise and experience. The PAs also continue their active search and review of new technologies through the MTAC. In Q1, the PAs continued to build on strong residential results due to high demand, including: Home Energy Services, Gas Heating and Water Heating and Heat pumps. In view of the strong results of some PAs in small C&I, the PAs have increased focus on small C&I to absorb some challenges in large C&I program. There have been continued successful efforts in low-income retrofit with collaborative work with LEAN/Network, which has put low-income on track for three years and created expectations of continued performance. For additional detailed information on the efforts made by the PAs in Q1 toward achieving their savings and benefits goals, please see Sections III through VIII.

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 have started planning for the development of the 2016-2018 Plan. Most of these activities are taking place as part of the PAs' evaluation efforts. In the fourth quarter of 2013, work on the Evaluation Strategic Plan ("ESP") for 2013-2014 was completed, as the result of a productive collaboration by the PAs, the Council's consultants and the evaluation contractors. The PAs have over 50 studies planned or in progress. The results of these studies will be taken into consideration in the development of the 2016-2018 Plan. During the first 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 ("EMC") and coordination with the Residential and Commercial & Industrial Management Committees. The PAs have also started planning for the 2015 Avoided Energy Supply Cost ("AESC") Study and expect to issue a request for proposal during the summer of 2014. For additional details on the PAs' evaluation activities in Q1, please see Section VI below and the EM&V Gantt chart and a related evaluation table included as Attachment B.

III. Gas and Electric Program Highlights

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

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

RESIDENTIAL SECTOR

Residential New Construction & Major Renovation

Through the end of the first quarter, the Program completed over 1,713 units statewide. PAs are on track to reach statewide goal. Recruitment plans are being implemented for territories with historically lower housing starts, with focus on both participating and non-participating builders.

As of March 31, 2014, there are 134 communities that have adopted the Stretch Energy Code. Several additional towns across the Commonwealth are looking to adopt the Stretch Code including: Halifax, Medfield, Pepperell, Upton and Marshfield during the Spring/Fall of this year. The Program will continue to provide training, technical assistance and incentives to meet the new energy code to assist builders, building code offices and trade allies. Currently, 55+ Home Energy Rating companies receive this type of support through the program.

RESIDENTIAL HIGH-RISE NEW CONSTRUCTION

At the end of March 2014, 8 projects with 679 residential units completed the multi-family high-rise program path: 125 LI units and 554 NLI units. This represents a 24% completion rate of all 2014 enrolled projects. Recruitment efforts among the most active multi-family developers continued throughout the last quarter with weekly lunch and learn events, project reviews and site meetings. Several new web-based search tools were brought online during the past quarter to assist in building a project recruitment pipeline.

C&I COORDINATION

Monthly Project Meetings were held with C&I staff members of NSTAR and National Grid to review and qualify projects for participation in the MFHR program. 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 applications.

At the request of National Grid, an expanded scope of work is under development that looks to double the number of program participants in the 2014 program year. Increased program goals, administrative budgets, and incentive budgets were being reviewed as the quarter was wrapping

up.

At the end of March 2014, 8 projects with ~900,000 square feet of developed space completed the multifamily high-rise program path. This represents a 24% completion rate of all 2014 enrolled projects. Recruitment efforts among the most active multi-family developers continued throughout the last quarter with weekly lunch and learn events, project reviews and site meetings.

Multi-Family Retrofit

The Multi-Family Retrofit Program is off to a good start in 2014, with most PAs projecting to meet or exceed their savings goals. Program enrollment trends continue to rise with a 40% increase in the number of program service requests in the first few months of the year.

The PAs are currently in the process of engaging multi-family stakeholders in a focus group setting to assess the effectiveness of program delivery and marketing tactics. Based on preliminary feedback from similar efforts, the PAs have commissioned a 60 second informational video on the Multi-Family initiative which is slated to be posted on the Mass Save website in May.

Through the first quarter of the year, the PAs have met regularly and are continuing to incorporate emerging technologies into the Multi-Family measure mix, most notably; PAs are developing implementation strategies for the addition of Wi-Fi Enabled Communicating Thermostats and LED lighting.

Home Energy Services and HEAT Loan

Most PAs are trending well in the first quarter of 2014 for the Home Energy Services Program. The PAs continue to implement some of the new enhancements from last year while exploring the implementation opportunities for the 2014 new enhancements.

Continuing Initiatives:

- Electric PA introduction of LEDs and Advanced Power Strips during the HEA
- Pre-Weatherization Barrier Offer
- Cross Program Promotions
- 2-4 Unit Incentive (Efficient Neighborhoods+SM and Renew Boston)

2014 Initiatives Currently in Development:

- Early Boiler Replacement Rebate
- Early Furnace Replacement Rebate
- Deeper Savings Initiative
- Enhanced Customer Bonus Initiatives
- Contractor Incentives
- Rebates for Wireless Enabled Thermostats

The Contractors Best Practices Working Group (“BPWG”) is off to a strong start in 2014. The

group has shared best practices in customer service, training, and performance standards. Various subcommittees have been developed to dive further into various topics including a Performance Standards Subcommittee. This committee is tasked with exploring existing performance and professional standards with the goal of developing a set of standards to be widely adopted by the contractor community. The Contractors BPWG continues to make positive strides towards increasing quality and customer satisfaction as well as addressing other best practices across the program.

The PAs commitment to workforce development continues in 2014 as all participating contractors were recently reminded of the various subsidies offered for trainings including weatherization boot camps, combustion safety testing, and one-on-one mentoring sessions. Additionally, a subset of BPWG contractors plan to develop a list of requirements for training that would best meet their needs when hiring new employees. The PAs will continue to explore opportunities for additional training to enhance the skills of participating contractors.

The HEAT Loan continues to be high demand in the first quarter, and the PAs anticipate more HEAT Loans in the summer months due to the Early Boiler and Early Furnace Replacement Rebates. Additionally, the PAs are working with DOER to offer financing for added measures via ARRA funding.

Residential Lighting

In January, the Lighting & Consumer Products PAs received the first ever “Social Media Award” from the Association of Energy Service Professionals (“AESP”) for the Mass Save Lighting & Products Facebook and Twitter marketing initiatives. The award was presented at the AESP Annual Conference in San Diego and the award recognized the PAs for outstanding achievement in marketing and communications.

The PAs launched their 2014 campaign with a very successful social media promotion focusing on omni-directional LED bulbs and advanced power strips. In the span of eight days, the PA sold 7,500 Philips LED bulbs and 2,500 Tricklestar advanced power strips to Mass Save Facebook fans. Numerous fans commented on their satisfaction with the LED bulbs they purchased.

PAs introduced new lighting point-of-purchase (“POP”) materials and an educational brochure to retailer stores during the first quarter. New POP materials included several sizes of specialty stickers, and specialty CFL and LED signs designed for home improvements.

Electric Residential Cooling and Heating

The Cool Smart working group has taken an integrated approach and worked with the GasNetworks and Home Energy Services working groups to release the Early Furnace Replacement measure along side Early Boiler Replacement. Cool Smart’s Quality Installation Verification (“QIV”) Contractor Group will be notified that these Early Heating Replacement measures are available in conjunction with their existing Early AC/HP Retirement Offer.

On March 8, 2014 Cool Smart and GasNetworks joined together to share a booth at the annual Plumbing and Heating Contractor conference in Marlboro, MA. Approximately 400 plumbing contractors attended the event which featured a MA Code Seminar, Trade Exhibits, break-out workshops, and seminars. Cool Smart had a presence at the booth and provided a Duct Sealing class to HVAC contractors interested in Duct Diagnostics.

On February 26th, 2014 Cool Smart and the New England chapter of Air Conditioning Contractors of America (“ACCA”) joined forces to hold the first annual ACCA/Cool Smart Conference and Trade Show in Westborough, MA. The event had over 150 attendees including mostly HVAC technicians. Industry Supply Houses, Manufacturers and Software Companies were also in attendance. Cool Smart was able to train over 100 technicians at this event, with topics including Quality Installation Verification, Duct Diagnostics Sizing, Duct Design, QIV, and Load Calculation Software. In addition to the HVAC training opportunities, there were Proactive Transaction Sales and Mass Save Home Energy Services presentations.

QIV training was off to a great start in 2014 with over 250 companies participating, many of which are participants that are new to the program. The first quarter was very successful with most PAs on track to meet or exceed planned goals.

Gas Residential Heating and Water Heating

The GasNetworks took an integrated approach and worked with Cool Smart and Home Energy Services working groups to release a coordinated enhanced incentive for the new Early Furnace Replacement measure along side Early Boiler Replacement.

These Early Heating Replacement Incentives will be highlighted via several mediums including print, web and circuit rider activity. Marketing for these incentives has been closely integrated with Home Energy Services marketing efforts.

On March 8, 2014 GasNetworks participated in the annual Plumbing and Heating Contractor conference in Marlboro, MA. Approximately 400 plumbing contractors attended the event which featured a MA Code Seminar, Trade Exhibits, break-out workshops and seminars. Cool Smart also used this opportunity to offer a Duct Sealing and Duct Testing course.

In 2014, GasNetworks continues to expand its circuit rider and educational outreach to Big Box Stores, Supply Houses, and Retail Outlets. Over fifteen Vendor Days, Big Box Round Tables, or Home Shows were attended in Q1.

Customers and contractors continue to utilize on-line submission of rebate applications, with the majority of rebate submittals now occurring online.

Residential Consumer Products

The PAs partnered with Samsung and five local retailers this past February on a unique sweepstakes promotion to increase the awareness of high efficiency refrigeration. PA customers who purchased an eligible ENERGY STAR, ENERGY STAR Most Efficient, or TopTen

Listed Samsung refrigerator were entered into a sweepstakes where they could receive a credit of 50% to 100% of the purchase price. The five participating retailers included Salemi Appliance (Springfield), Percy's (Worcester), Boston Appliance, Kahian's (Plymouth), and Crane's Appliance (East Falmouth, Vineyard Haven & Orleans).

New appliance and electronics brochures were developed and placed in stores during the first quarter. The new brochure designs convey key information that will aid customers in purchasing the most efficient product possible.

LOW-INCOME SECTOR

Low-Income Single Family

The Low Income Single Family budgets and savings vary by PA, but generally they are on target for the first quarter of 2014 with an expectation of meeting and/or possibly exceeding goals.

The 2013 Final Metric Documentation reports for Strategic Targeting Metric as well as the Multi-Family Building Inventory Metric were completed and filed accordingly in Quarter 1 2014.

Contractor pricing for weatherization within the Low-Income program was reviewed and approved by the PAs in March and will be effective from April 2014 through March 2016.

On March 27, 2014, the PAs jointly issued a statewide RFP for a fulfillment distributor(s) of High Efficiency Lighting Products for all residential and low-income, direct install programs. The intent of this RFP is to solicit competitive pricing on bulk procurement for the order fulfillment of Energy Star[®] qualified LEDs and CFLs in order to replace the majority of incandescent bulbs with LED products via in-home residential energy efficiency programs.

Low-Income New Construction

The Low Income New Construction initiative has seen 71 completions through the first quarter of 2014. Some PAs have forecasts that will exceed savings goals, while others have forecasts currently that will not reach savings. The PAs continue to aggressively seek out low-income projects throughout the Commonwealth. Account Managers continue to follow business plans with significant attention to Low-Income outreach. In January, Account Managers presented to the Real Estate Development and Property Management Committee of the Regional Housing Network of Massachusetts held at RCAP Solutions in Worcester.

Under the Multifamily High-rise ("MFHR") program path, 2014 completions yielded 125 low-income units. Recruitment efforts for both high-rise and low-rise are coordinated through all of the program account managers with a specific focus on energy consultants and design firms who specialize in low-income projects. Due to the prolonged construction schedule of most MFHR projects, present day recruitment efforts typically yield projects that will be completing in 2015 and beyond.

Low-Income Multi-Family Retrofit

The Low-Income Multi-Family budgets and savings vary by PA. Most PAs are on or ahead of target for budget and savings goals. There are several projects currently in the pipeline so the PAs anticipate a very productive second and third quarter in 2014.

The 2013 Final Metric Documentation reports for Strategic Targeting Metric as well as the Multi-Family Building Inventory Metric were completed and filed accordingly in Quarter 1 2014.

Contractor pricing for weatherization within the Low-Income program was reviewed and approved by the PAs in March and will be effective from April 2014 through March 2016.

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The PAs continue to utilize the WEGOWise Multi-Family Benchmarking tool to identify the least-efficient buildings among all those eligible for funding and help to prioritize energy efficiency projects to make the most of the budgets.

COMMERCIAL AND INDUSTRIAL SECTOR

In Q1, the Program Administrators have continued to work diligently toward achieving the 2014 savings goals while actively exploring strategies to expand offerings, enhance strategies and to encourage consistent participation throughout the year to help mitigate the “hockey stick.”

Events and Outreach. The 2014 Vendor Open Houses were held in five locations throughout the state during January and February. The Open Houses provided vendors with up-to-date information regarding changes or updates to the statewide energy efficiency programs. Attendance this year was exceptional with over 450 industry professionals attending one or more of the sessions.

Municipal Initiative. The PAs have developed a consistent statewide initiative to simplify participation by, and more effectively provide efficiency services to, cities and towns throughout the Commonwealth. A marketing brochure describing the initiative has been drafted and is expected to be available in early Q2.

Financing. The PAs continue to offer financial products in conjunction with the Massachusetts Bankers Association and Credit Unions. To increase activity, information regarding available financing options and processes was added to all application forms applications. As a result,

inquiries regarding financing have increased relative to Q1 2013.

The PAs continue their efforts to better understand the nature of barriers related to accessing capital for certain customer segments and to explore financing solutions to address those barriers. The PAs continued to have periodic discussions with lenders to address any issues with lending and explore areas for improvement.

Small Business Training. The PAs have scheduled brainstorming meetings with the small business program vendors in Western Massachusetts as preparation for statewide small business training taking place this summer.

Main Streets. National Grid conducted two Main Street deployments in two different cities during Q1. Using an iterative process, National Grid significantly increased outreach in the second effort by engaging the city energy commission to promote and lend legitimacy to the effort. This significantly increased awareness the audit-to-implementation closure rate and provides important learnings should further deployment of Main Streets be deemed appropriate. Once completed, National Grid will assess the cost effectiveness of the Main Streets approach and determine its suitability for more widespread deployment as a means to serve micro businesses.

Street Lighting. In January 2014, Cape Light Compact (“CLC”) launched full scale installation of its LED streetlight initiative across Cape Cod and Martha’s Vineyard. By the end of Q1, 10,300 of the more than 15,000 street light retrofits were completed, with the remainder on schedule to be installed by the end of Q2. The town by town installations followed more than two years of planning and a one-year demonstration project phase in which prospective participating towns each had 8 sample fixtures installed in an effort to foster community acceptance of the new look of the LED lighting, as well as to gain valuable input for informing fixture choice for the full project. In total, the project is expected to save more than 3 million kWh of energy annually and more than \$800,000 in annual energy and maintenance costs for the participating towns.

CLC is very pleased with how the project has progressed and attributes this success to date to a number of factors, including having a dedicated project manager available to shepherd municipalities through the process of educating their citizenry on the new lighting and in being responsive to feedback arising during the demonstration phase. This included holding numerous meetings with DPW Directors both as a group and individually, presentations to all Boards of Selectmen and other town-specific interest groups, as well as a number of nighttime demo-site walk-throughs with interested parties to understand and respond to participant concerns. While an industry street classification guideline was used to employ a standard for four kinds of roadways as a baseline for selecting fixture wattage levels, ultimately, the project was designed to accommodate specific town preferences on lighting levels for individual streets and intersections, and also included a 5% revisit factor to deal with unanticipated issues after the fact.

Finding the best fixture to meet the variety of community needs (e.g., some more pedestrian walking downtowns versus others more concerned with vehicular traffic and safety) was made

possible by continuing improvements in LED fixture technology. Rapid progress in this area not only enabled access to an even more efficient and warmer color temperature LED fixture than planned, but also to better alternatives for light distribution and cut-off options, and ultimately reduced the cost of a more flexible output fixture model, whose field adjustable options enable the light output (lumens) to be tuned (between 29% -100%) to meet the exact needs of a particular location. In addition, the LED fixtures include a 10-year warranty, and the new O&M contract rates to maintain the LED fixtures are 70% lower than the cost of maintaining the previously installed high pressure sodium street lights. The fixtures selected are also able to be fitted with optional adaptive control and remote monitoring capability should any town choose to add this functionality in the future.

Subcommittee Activities

The various C&I Subcommittees discussed a number of issues and areas for possible improvement during Q1. Details for each subcommittee are as follows:

Electric Non-Lighting

- Opportunities for greater consistency across PAs in a variety of areas and identified TA studies, turnkey vendors, vendor eligibility, commissioning requirements, and retainage as areas which will be explored further for best practices.
- Discussions also took place regarding incentive applications for 2015 and the potential impacts of building code changes on incentive levels. As a result, incremental cost studies were requested to support an analysis of necessary changes. Review of recent studies is underway in Q2 to determine additional needs.
- Joint training efforts and leveraging larger PA support of MAEEP to tailor future trainings. An eQUEST and retro-commissioning training will be hosted in Q2 as a result.
- The need for new/revised custom express tools. A new EMS tool is being investigated in Q2. Northeast Utilities and National Grid are taking the lead – each has a tool but they use different inputs and there are limitations to sharing because of proprietary information. The possibility of building a new tool is being investigated along with possibly simplifying the EMS incentive application to match the tool.

Lighting

- A Network Lighting Controls initiative was launched in Q1. A vendor was hired to develop and application form and temporarily manage lighting control vendor applications.
- National Grid and Northeast Utilities are joining with other east coast utilities in support of NEEP's CALC (Commercial Advanced Lighting Controls) initiative which includes the development of a robust energy savings calculator for lighting controls.

Upstream

- An event booth has been purchased to better showcase the upstream lighting initiative to our partners and customers at trade show events.
- The PAs continue to explore opportunities to add additional products to the upstream

model. Gas measures including water heaters and furnaces are under specific consideration and the Upstream and Gas Subcommittees are working collaboratively on this effort.

IV. Massachusetts Technology Assessment Committee

The Statewide Massachusetts Technology Assessment Committee (“MTAC”) worked on the following items in Q1 of 2014:

- The committee worked to upgrade and promote the MTAC section of the Mass Save website with the expectation that this will increase submissions of new product applications and technologies.
- The committee evaluated seven new technologies/products in first quarter of 2014. The technologies/products discussed included: plug load devices, kitchen hood heat recovery, opaque insulation, process and HVAC controls. MTAC also provided disposition on two (2) of these technologies.
- RTU controller technology that was approved as a custom energy efficiency measure in March 2013 continues to garner interest among the trade allies and customers. PAs are noticing a steady increase in the number of projects implementing this technology with National Grid alone having more than seventeen projects in various stages of implementation during the past six months.
- The committee is also actively collaborating and engaged in knowledge sharing with other committees such as a utility RD&D Policy Working Group at Connecticut Light and Power. The knowledge sharing has helped to ensure consistency and expedite our disposition time.

V. Marketing, Education, Outreach Highlights

Statewide Marketing

The 2014 Mass Awareness Campaign was launched in first quarter. The goal of the campaign is to raise awareness of Mass Save by communicating that anyone can lower their energy bills and that the first step is to visit MassSave.com. The advertising campaign is designed to reach the Residential, Commercial & Industrial, Low-Income and Multicultural (Spanish & Portuguese) audiences. The campaign will reach consumers statewide via multiple media channels. The media channels are scheduled to ensure that Mass Save will be in-market every week of the campaign from January 6-November 23.

Media channels include:

- Digital display banners
- Paid search
- Smartphone and tablets
- Pre-roll video
- Facebook

- Mobile geo-fencing
- Banners on Linked In
- Radio
- Billboards
- Commuter signage (MBTA commuter rail station & T-station advertising)
- Bus side advertising and interior cards
- Gas pump top ads
- Business journal ads
- Insertions in select chamber of commerce newsletters and/or websites

New channels being utilized in the 2014 Awareness Campaign include pre-roll video, advertising on Linked In to reach key C&I targets, geofencing (serving ads on mobile phones within .5 miles of all Home Depot and Lowe's locations in the state), and advertising on the North Central MA Chamber website.

The 2014 campaign launched on January with paid search and Facebook advertising, then expanded the following month to include business journal and radio advertising. In March, the campaign began firing on all cylinders with digital display advertising, paid search, Facebook, pre-roll video, radio, billboards (major thoroughfares in Boston, New Bedford, Springfield, Pittsfield and Worcester), and print advertising in business journal and chamber of commerce publications.

Samples of the pre-roll videos can be found at the links below:

Ways to Save with Mass Save – Fishing

<http://youtu.be/GtjYiNEC-hg>

Ways to Save with Mass Save - Family BBQ

<http://youtu.be/nOrWXcepQcI>

Ways to Save with Mass Save - First House

<http://youtu.be/qis0LBGLGtY>

As the campaign ramped up, KSV monitored and optimized all digital channels and the creative to maximize exposure and media spend efficiency. The optimization objectives are to drive traffic to the Mass Save website and ensure that consumers are seeing relevant information about Mass Save programs and information that will increase energy efficiency.

Work on the Mass Save website continues. In the first quarter of 2014, the Statewide Marketing Team and Pixel launched a responsive website that is now mobile device friendly, completed an upgrade to Sitecore version for better performance, and began reviewing the Residential needs of the site to create an improved user experience.

Statewide Education

The Residential Education Working Group staffed a booth at the National Science Teachers Association's Annual Convention at the Boston Convention Center on April 2 – 6, 2014. The Group saw over 2,000 teachers from the state. The Working group promoted the PAs' NEED teacher trainings and each PA presented educational programs offered by them exclusively.

VI. Evaluation, Measurement, and Verification Highlights

During the first 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 ("EMC") and coordination with the Residential and Commercial & Industrial Management Committees.

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

Residential Research Area

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

The **Massachusetts Residential New Construction Net Savings Study** is focused on assessing the impacts the RNC program has had on the marketplace over the past seven years, and includes builder survey, Delphi panel and energy modeling components. The final report was completed in the first quarter of 2014.

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

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

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

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

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

HEHE Impact Evaluation. The objective of this study is to determine gross savings for the HEHE programs and provide refined estimates of hours of use and coincidence factor for a variety of space heating measures. Metering equipment has been installed in more than 100 homes. The meters will remain in place throughout the 2014 heating season. Draft results are expected in the third quarter of 2014.

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

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

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

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

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

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

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

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

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

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

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

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

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

Commercial & Industrial Research Area

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

Impact Evaluation of Upstream Lighting Program. This study provides several updated savings inputs based on two waves of on-site metering of a robust sample of projects installed in 2011 and 2012. The report was finalized in the first quarter of 2014.

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

Impact Evaluation of CHP Installations. This study provides updated realization rates based on in-field metering of projects completed in 2011 and 2012. The report was finalized in the fourth quarter of 2013.

Existing Building Market Characterization. This study will provide information on equipment market share and saturation, baseline information, market conditions, program penetration, savings potential and market barriers by conducting telephone surveys with customers and on-site visits. The report is expected in the second 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 is expected in the second quarter of 2014.

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

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

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

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

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

C&I Customer Profile. This is the second study in an annual series and will use existing program tracking and customer billing data to create a profile of C&I customers in the state based on market and participant characteristics such as size, business type and program participation rates. Data analysis is currently underway and draft results were received in the first quarter of 2014.

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

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

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

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

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

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

Special and Cross-Sector Research Area

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

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

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

2013 Massachusetts Statewide Marketing Campaign Post-Campaign Results: This study provides information on the results of the 2013 Massachusetts statewide marketing campaign. The goal of this effort is to address the language contained in the Gas and Electric Term Sheets, and assess awareness of Mass Save immediately after the new 2013 marketing campaign concludes. To support the December 2013 post-campaign assessment of Mass Save, the evaluation team reviewed all of the statewide marketing materials used in 2013, as well as each

of the PA websites. The team also fielded telephone surveys with a sample of residential and commercial and industrial (C&I) customers. These surveys were fielded immediately after the close of the 2013 campaign in December 2013. In total, the Team spoke with 500 residential customers and 300 C&I customers from around the state. A draft report was issued in January 2014 and the evaluation team expects to provide a final report in February 2014.

COOL SMART / GasNetworks Brand Assessment: This study will assess the effectiveness of the COOL SMART and GasNetworks brands among contractors. The focus is on addressing the language outlined in the Gas and Electric Term Sheets regarding the effectiveness of all joint statewide branding efforts. In particular, the research objectives for this study include: provide documentation of the brand strategy and branding efforts undertaken to date for the COOL SMART and GasNetworks brands; explore brand awareness, knowledge and associations; assess branding effectiveness for each brand; and examine the relationship between awareness and attitudes towards Mass Save, and GasNetworks and COOL SMART. Key research activities include in-depth interviews with marketing staff, a literature review, and a contractor telephone survey. At this time, the evaluation team has completed the in-depth interviews, a draft of the contractor survey, and a preliminary assessment of available literature.

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

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

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

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

Net-to-Gross – Top-Down NTG Methods: This is a two phased study to provide guidance to determine the role of top-down modeling of net energy impacts. Phase I will take place during

the 2014 evaluation period. Phase II will follow the Phase I research. The Phase I study will review existing Top-Down modeling techniques and recommend specific methods to be used in MA, obtain the necessary data for employing one or more agreed approaches, implement multiple agreed-upon approaches in parallel to provide an initial demonstration of the contribution that Top-Down modeling may make to on-going evaluation efforts, and make recommendations for data that should be tracked to facilitate better Top-Down modeling in the future.

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

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

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

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

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

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

VII. Regulatory Updates

In the first quarter of 2014, the PAs were engaged with the 2011 and 2012 Energy Efficiency Annual Reports proceedings, including completing discovery, participating in electric PA hearings, and preparing initial and reply briefs, which were filed on March 19, 2014 and March 31, 2014, respectively.

The PAs actively participated in the D.P.U. 11-120 plan-year report streamlining subcommittee on January 28, 2014. At this meeting, the PAs presented their data-focused straw proposal for the Plan-Year Report template and discussed other elements of the Plan-Year Report and

streamlining with the Department and subcommittee participants. The PAs followed up that meeting with the submission of a revised PA proposal template on February 10, 2014.

In the D.P.U. 14-05 docket, the PAs submitted revised PA-specific and statewide electric and gas D.P.U. 08-50 tables and performance incentive models that incorporated the Avoided Energy Supply Cost study (“AESC”) 2013 avoided cost factors. As part of the revised electric and gas performance incentive models, the PAs proposed to eliminate performance metrics as a component of the performance incentive mechanism, while retaining the savings and value mechanisms and their relative weights. Interested parties filed comments on the Program Administrators’ submissions on March 28, 2014. The Department has since instructed that interested persons may submit reply comments by May 23, 2014.

VIII. Special Focus Topics

A. Implementation Update

The Program Administrators submitted an Implementation Update (“IU”) on March 17, 2014. This set of data tables was designed to provide information to the Council on a PA’s current strategic thinking on the most likely future course to achieving three-year goals. The IUs provided updates on implementation approaches for 2014-2015 that were informed by the most recent and best available data for each Program Administrator, as well as a roll-up of this information that provided a statewide overview. The template for the IU tables was developed collaboratively by the PAs working with the Council’s consultants and was endorsed by the Council in its November 12, 2013 resolution on DPU 11-120-A Reporting/Streamlining. The IU was developed for use in 2014, and was designed to allow the Council to monitor achievement against goals and to review forward-looking strategies to achieve goals based upon in-the-field experience and current EM&V results. The Program Administrators hosted a webinar on March 19th to assist interested parties in their review of the data. Based on the data in the IU files, the PAs and consultants are working on three “deeper dives” to further explore strategies in residential lighting, residential multi-family, and C&I large retrofit.

ATTACHMENT A
QUANTITATIVE REPORT

Q1 2014 Statewide Electric Budgets (January 31, 2014 through March 31, 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
Electric						
Planned	\$ 28,100,084	\$ 18,080,307	\$ 362,618,125	\$ 71,318,572	\$ 15,901,188	\$ 496,018,277
Residential	\$ 6,404,675	\$ 11,037,957	\$ 109,802,725	\$ 30,258,759	\$ 5,348,284	\$ 162,852,400
1. Residential Whole House	\$ 3,368,975	\$ 3,759,570	\$ 73,023,795	\$ 21,601,933	\$ 3,777,873	\$ 105,532,147
2. Residential Products	\$ 1,567,833	\$ 4,315,142	\$ 28,065,128	\$ 6,192,181	\$ 1,425,820	\$ 41,566,105
3. Residential Hard-to-Measure	\$ 1,467,867	\$ 2,963,245	\$ 8,713,802	\$ 2,464,644	\$ 144,590	\$ 15,754,148
Low-Income	\$ 3,234,052	\$ 666,259	\$ 39,695,582	\$ 9,497,982	\$ 1,829,828	\$ 54,923,703
4. Low-Income Whole House	\$ 1,864,141	\$ 407,060	\$ 39,695,582	\$ 9,483,582	\$ 1,790,111	\$ 53,240,476
5. Low-Income Hard-to-Measure	\$ 1,369,912	\$ 259,199	\$ -	\$ 14,400	\$ 39,716	\$ 1,683,227
Commercial & Industrial	\$ 18,461,358	\$ 6,376,091	\$ 213,119,818	\$ 31,561,831	\$ 8,723,076	\$ 278,242,174
6. C&I New Construction	\$ 3,797,438	\$ 1,468,440	\$ 38,456,766	\$ 8,185,850	\$ 2,053,311	\$ 53,961,806
7. C&I Retrofit	\$ 11,908,986	\$ 3,768,845	\$ 174,663,051	\$ 23,375,981	\$ 6,458,581	\$ 220,175,443
8. C&I Hard-to-Measure	\$ 2,754,933	\$ 1,138,807	\$ -	\$ -	\$ 211,185	\$ 4,104,924
Q1	\$ 7,847,107	\$ 2,703,130	\$ 46,390,744	\$ 12,787,828	\$ 1,264,133	\$ 70,992,942
Residential	\$ 2,051,362	\$ 2,122,326	\$ 21,604,812	\$ 6,938,683	\$ 442,282	\$ 33,159,464
1. Residential Whole House	\$ 685,963	\$ 806,106	\$ 14,085,022	\$ 4,109,596	\$ 160,730	\$ 19,847,417
2. Residential Products	\$ 256,908	\$ 907,034	\$ 7,533,635	\$ 892,551	\$ 226,264	\$ 9,816,392
3. Residential Hard-to-Measure	\$ 1,108,491	\$ 409,186	\$ (13,846)	\$ 1,936,536	\$ 55,288	\$ 3,495,655
Low-Income	\$ 648,921	\$ 67,877	\$ 6,608,170	\$ 1,401,853	\$ 68,256	\$ 8,795,077
4. Low-Income Whole House	\$ 308,289	\$ 21,755	\$ 6,608,170	\$ 1,401,853	\$ 64,791	\$ 8,404,858
5. Low-Income Hard-to-Measure	\$ 340,631	\$ 46,122	\$ -	\$ -	\$ 3,465	\$ 390,219
Commercial & Industrial	\$ 5,146,825	\$ 512,928	\$ 18,177,762	\$ 4,447,292	\$ 753,595	\$ 29,038,401
6. C&I New Construction	\$ 623,490	\$ 68,655	\$ 5,170,433	\$ 1,417,553	\$ 180,547	\$ 7,460,678
7. C&I Retrofit	\$ 1,969,647	\$ 206,119	\$ 13,007,329	\$ 3,023,750	\$ 523,109	\$ 18,729,954
8. C&I Hard-to-Measure	\$ 2,553,687	\$ 238,153	\$ -	\$ 5,989	\$ 49,939	\$ 2,847,768

YTD as Percentage to Planned	Program Planning and Administration	Marketing and Advertising	Participant Incentive	Sales, Technical Assistance & Training	Evaluation and Market Research	Total Spend
Electric	28%	15%	13%	18%	8%	14%
Residential	32%	19%	20%	23%	8%	20%
1. Residential Whole House	20%	21%	19%	19%	4%	19%
2. Residential Products	16%	21%	27%	14%	16%	24%
3. Residential Hard-to-Measure	76%	14%	0%	79%	38%	22%
Low-Income	20%	10%	17%	15%	4%	16%
4. Low-Income Whole House	17%	5%	17%	15%	4%	16%
5. Low-Income Hard-to-Measure	25%	18%	0%	0%	9%	23%
Commercial & Industrial	28%	8%	9%	14%	9%	10%
6. C&I New Construction	16%	5%	13%	17%	9%	14%
7. C&I Retrofit	17%	5%	7%	13%	8%	9%
8. C&I Hard-to-Measure	93%	21%	0%	0%	24%	69%

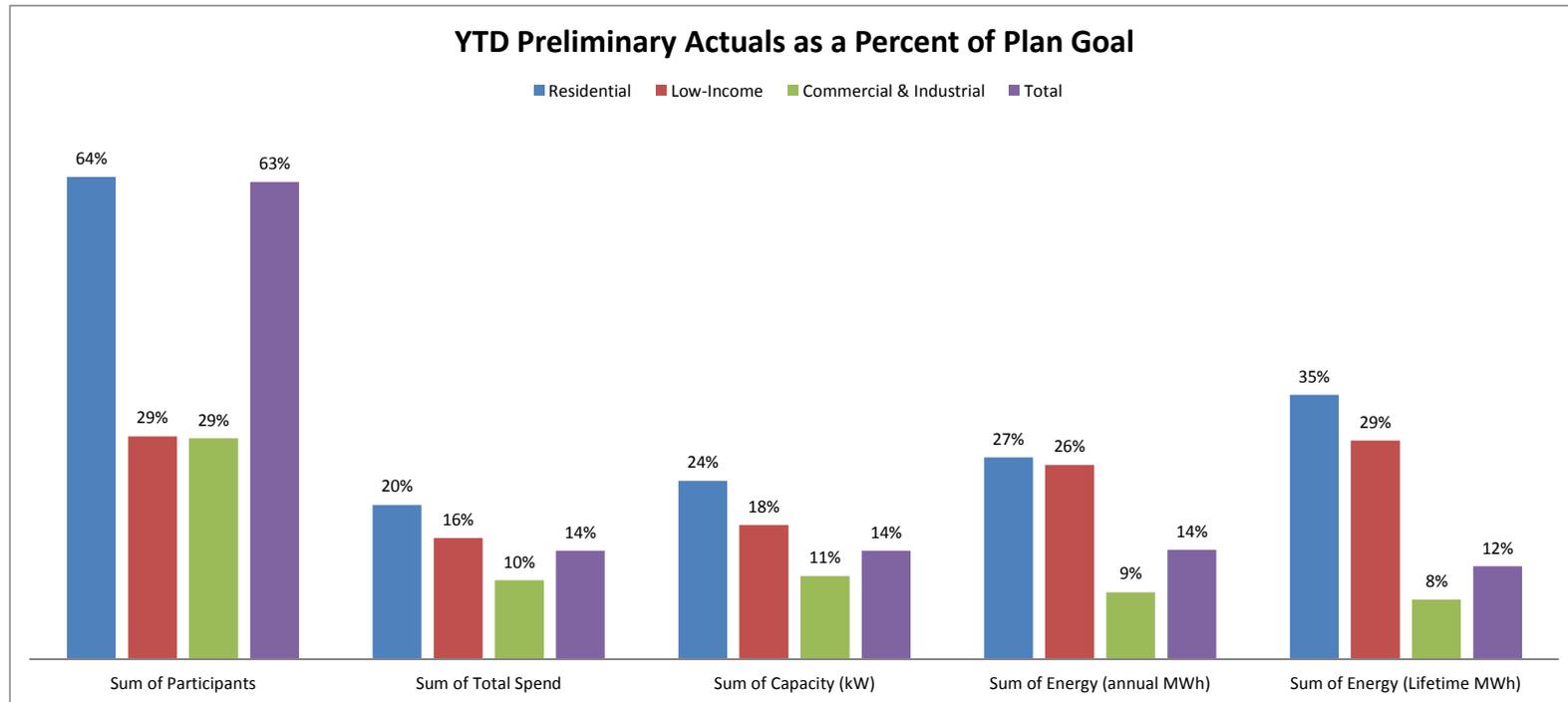
Q1 2014 Statewide Electric Savings (January 31, 2014 through March 31, 2014)

Row Labels	Total Sum of Participants	Total Sum of Capacity (kW)	Total Sum of Energy (annual MWh)	Total Sum of Energy (Lifetime MWh)
Electric				
Planned	2,303,685	177,696	1,236,598	13,268,628
Residential	2,259,817	45,584	364,571	1,952,344
1. Residential Whole House	929,641	24,344	193,722	665,982
1a. Residential New Construction	4,295	841	4,697	50,714
1b. Residential Multi-Family Retrofit	25,817	954	16,748	181,172
1c. Residential Home Energy Services	49,830	4,229	32,634	294,453
1d. Residential Behavior/Feedback	849,698	18,319	139,644	139,644
2. Residential Products	1,330,176	21,239	170,849	1,286,362
2a. Residential Cooling & Heating Equipment	12,228	3,231	6,035	82,438
2b. Residential Lighting	1,215,714	15,783	148,167	1,073,875
2c. Residential Consumer Products	102,234	2,226	16,647	130,048
Low-Income	27,488	3,246	27,759	260,056
4. Low-Income Whole House	27,488	3,246	27,759	260,056
4a. Low-Income New Construction	1,358	116	1,033	10,646
4b. Low-Income Single Family Retrofit	10,541	1,500	12,250	114,470
4c. Low-Income Multi-Family Retrofit	15,589	1,630	14,476	134,940
Commercial & Industrial	16,380	128,866	844,268	11,056,228
6. C&I New Construction	4,061	32,756	177,958	2,409,045
6a. C&I New Construction	4,061	32,756	177,958	2,409,045
7. C&I Retrofit	12,319	96,110	666,310	8,647,183
7a. C&I Retrofit	4,003	71,088	535,105	7,210,612
7b. C&I Direct Install	8,316	25,022	131,205	1,436,571
Q1	1,448,148	25,413	178,873	1,626,926
Residential	1,435,297	10,715	96,972	680,595
1. Residential Whole House	916,097	4,005	42,274	177,818
1a. Residential New Construction	1,345	736	2,446	28,712
1b. Residential Multi-Family Retrofit	8,085	223	4,296	45,425
1c. Residential Home Energy Services	9,367	896	10,293	78,442
1d. Residential Behavior/Feedback	897,300	2,150	25,239	25,239
2. Residential Products	519,200	6,709	54,698	502,777
2a. Residential Cooling & Heating Equipment	3,660	900	2,345	31,369
2b. Residential Lighting	498,197	5,167	48,755	444,595
2c. Residential Consumer Products	17,343	642	3,598	26,812
Low-Income	8,079	575	7,105	74,931
4. Low-Income Whole House	8,079	575	7,105	74,931
4a. Low-Income New Construction	85	5	30	262
4b. Low-Income Single Family Retrofit	2,547	320	2,637	30,191
4c. Low-Income Multi-Family Retrofit	5,447	251	4,438	44,478
Commercial & Industrial	4,772	14,123	74,795	871,400
6. C&I New Construction	3,564	7,384	32,275	350,220
6a. C&I New Construction	3,564	7,384	32,275	350,220
7. C&I Retrofit	1,208	6,739	42,520	521,179
7a. C&I Retrofit	345	1,973	17,112	204,318
7b. C&I Direct Install	863	4,766	25,408	316,861

YTD as Percentage to Planned	Participants	Capacity (kW)	Energy (annual MWh)	Energy (Lifetime MWh)
Electric	63%	14%	14%	12%
Residential	64%	24%	27%	35%
1. Residential Whole House	99%	16%	22%	27%
1a. Residential New Construction	31%	87%	52%	57%
1b. Residential Multi-Family Retrofit	31%	23%	26%	25%
1c. Residential Home Energy Services	19%	21%	32%	27%
1d. Residential Behavior/Feedback	106%	12%	18%	18%
2. Residential Products	39%	32%	32%	39%
2a. Residential Cooling & Heating Equipment	30%	28%	39%	38%
2b. Residential Lighting	41%	33%	33%	41%
2c. Residential Consumer Products	17%	29%	22%	21%
Low-Income	29%	18%	26%	29%
4. Low-Income Whole House	29%	18%	26%	29%
4a. Low-Income New Construction	6%	4%	3%	2%
4b. Low-Income Single Family Retrofit	24%	21%	22%	26%
4c. Low-Income Multi-Family Retrofit	35%	15%	31%	33%
Commercial & Industrial	29%	11%	9%	8%
6. C&I New Construction	88%	23%	18%	15%
6a. C&I New Construction	88%	23%	18%	15%
7. C&I Retrofit	10%	7%	6%	6%
7a. C&I Retrofit	9%	3%	3%	3%
7b. C&I Direct Install	10%	19%	19%	22%

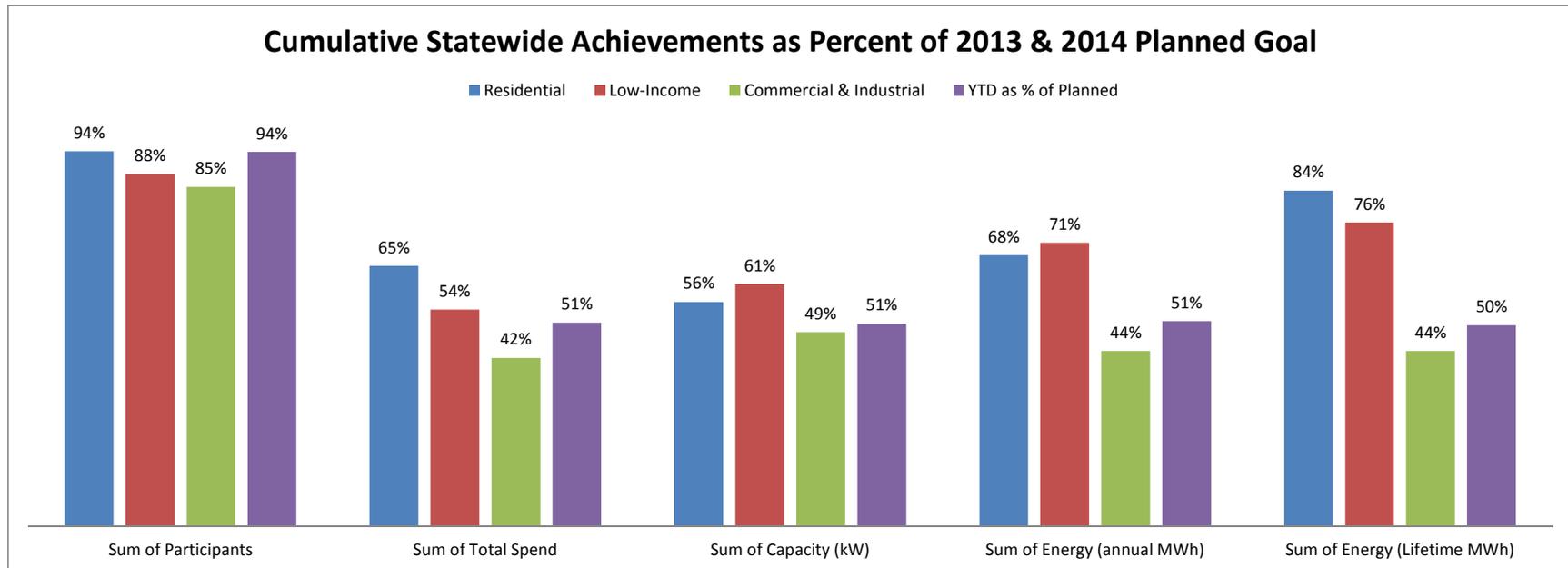
Q1 2014 Statewide Electric Summary (January 31, 2014 through March 31, 2014)

Values					
Row Labels	Sum of Participants	Sum of Total Spend	Sum of Capacity (kW)	Sum of Energy (annual MWh)	Sum of Energy (Lifetime MWh)
Electric					
Planned	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
Q1	1,448,257	\$ 70,992,942	25,413	178,873	1,626,926
Residential	1,435,406	\$ 33,159,464	10,715	96,972	680,595
Low-Income	8,079	\$ 8,795,077	575	7,105	74,931
Commercial & Industrial	4,772	\$ 29,038,401	14,123	74,795	871,400
YTD as % of Planned	63%	14%	14%	14%	12%
Residential	64%	20%	24%	27%	35%
Low-Income	29%	16%	18%	26%	29%
Commercial & Industrial	29%	10%	11%	9%	8%

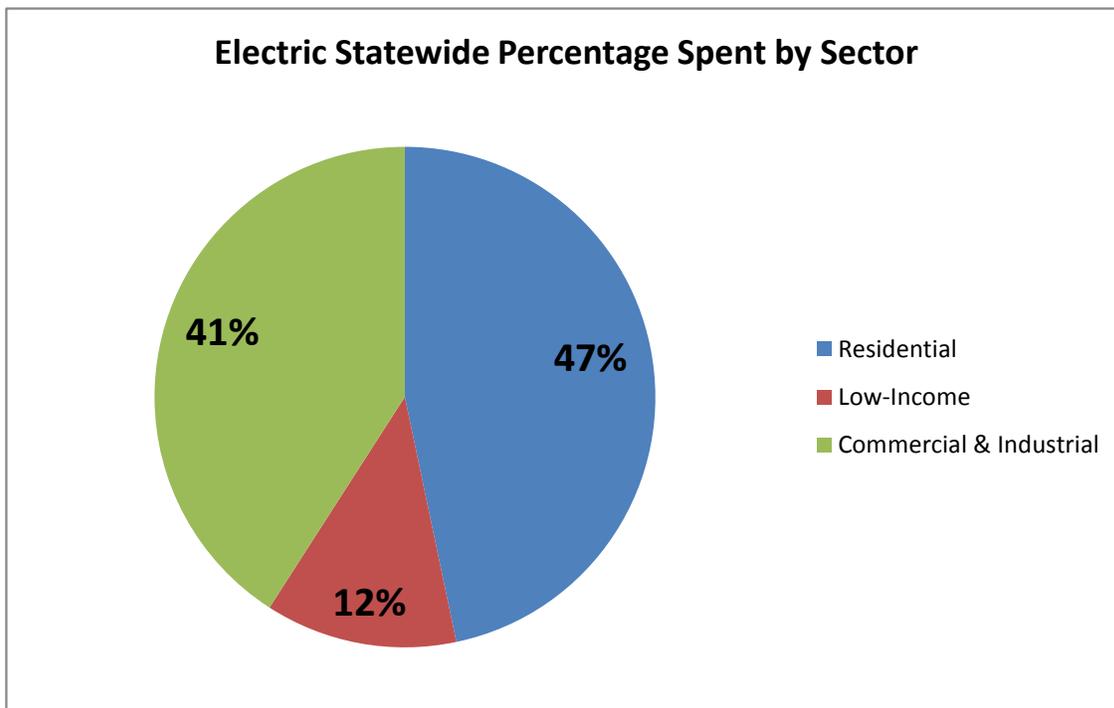
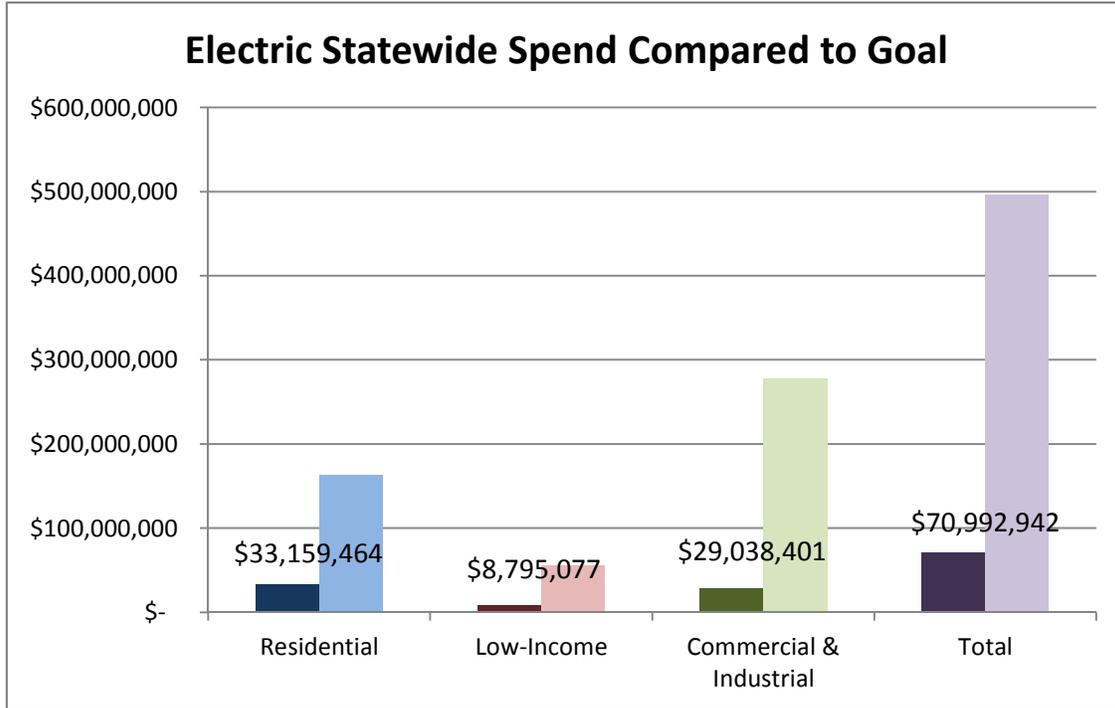


Cumulative Statewide Electric Summary (January 31, 2013 through March 31, 2014)

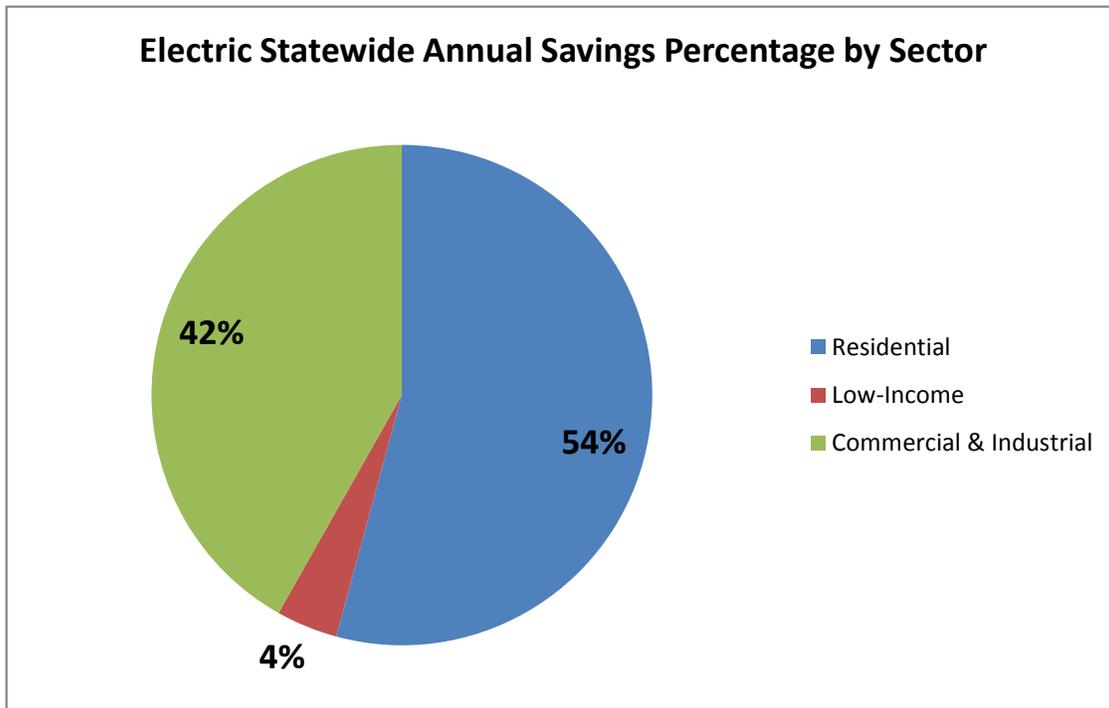
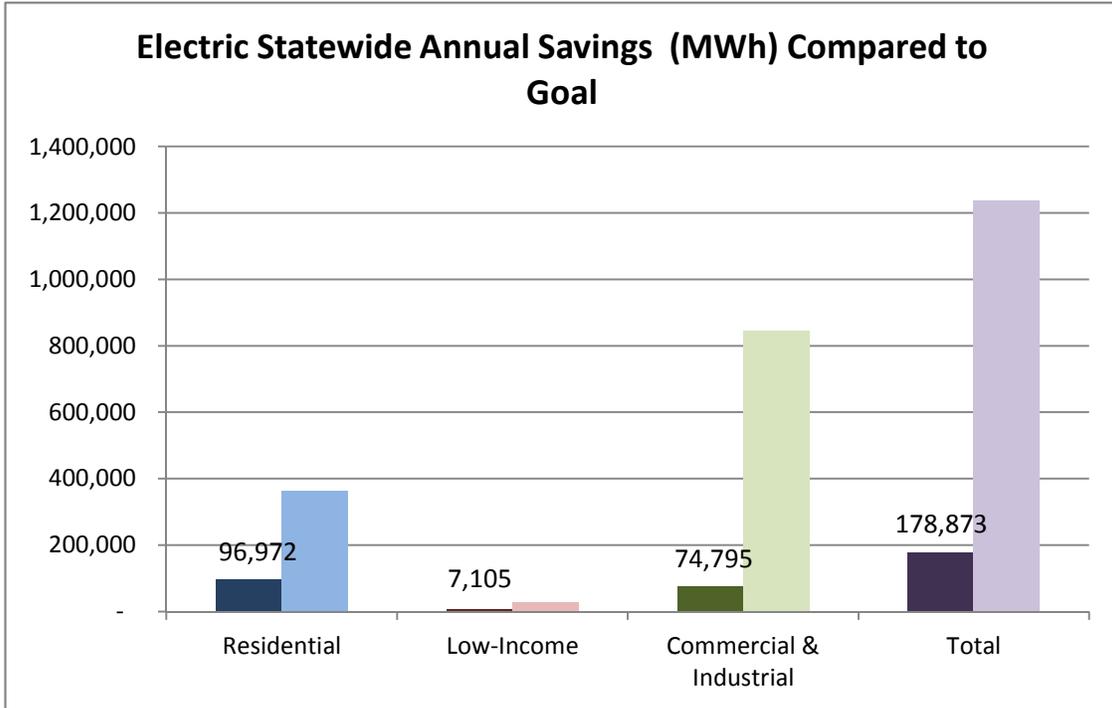
Values					
Row Labels	Sum of Participants	Sum of Total Spend	Sum of Capacity (kW)	Sum of Energy (annual MWh)	Sum of Energy (Lifetime MWh)
Electric					
Planned	4,508,565	\$ 977,881,110	351,048	2,431,785	26,415,256
Residential	4,420,341	316,634,891	88,557	694,362	3,844,724
Low-Income	55,367	109,060,537	6,579	56,596	525,072
Commercial & Industrial	32,857	552,185,683	255,912	1,680,826	22,045,460
Q1	4,224,529	\$ 498,097,722	177,986	1,247,844	13,299,988
Residential	4,147,813	\$ 206,267,612	49,709	470,859	3,228,578
Low-Income	48,803	\$ 59,128,941	3,991	40,180	399,147
Commercial & Industrial	27,913	\$ 232,701,169	124,287	736,805	9,672,264
YTD as % of Planned	94%	51%	51%	51%	50%
Residential	94%	65%	56%	68%	84%
Low-Income	88%	54%	61%	71%	76%
Commercial & Industrial	85%	42%	49%	44%	44%



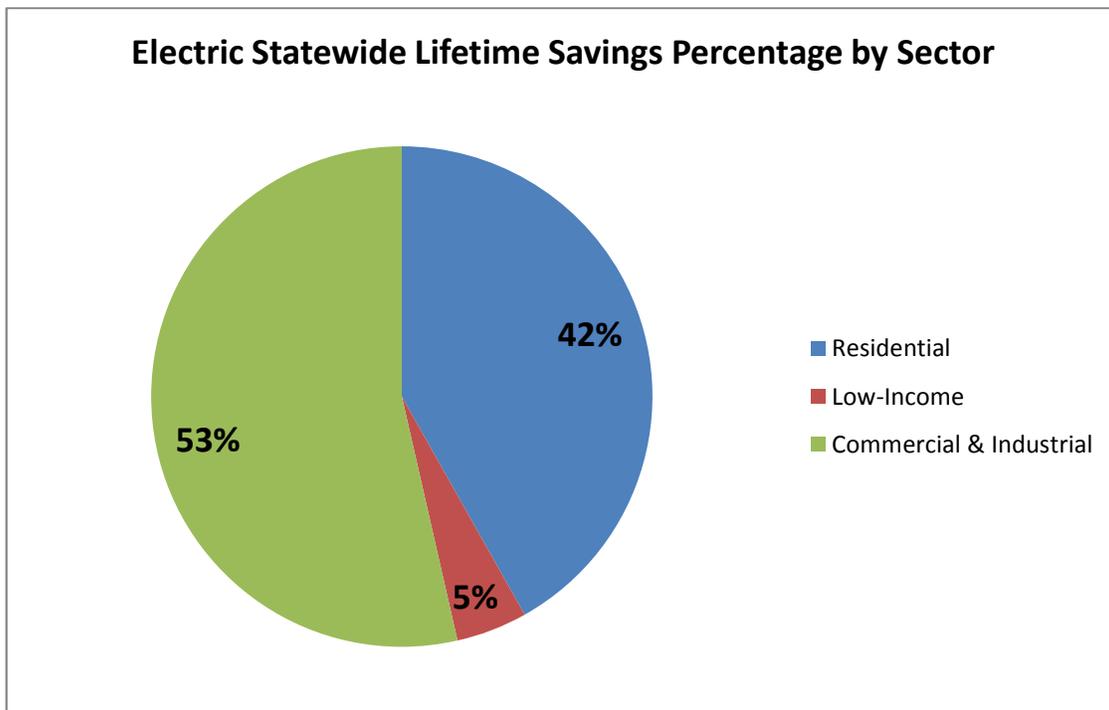
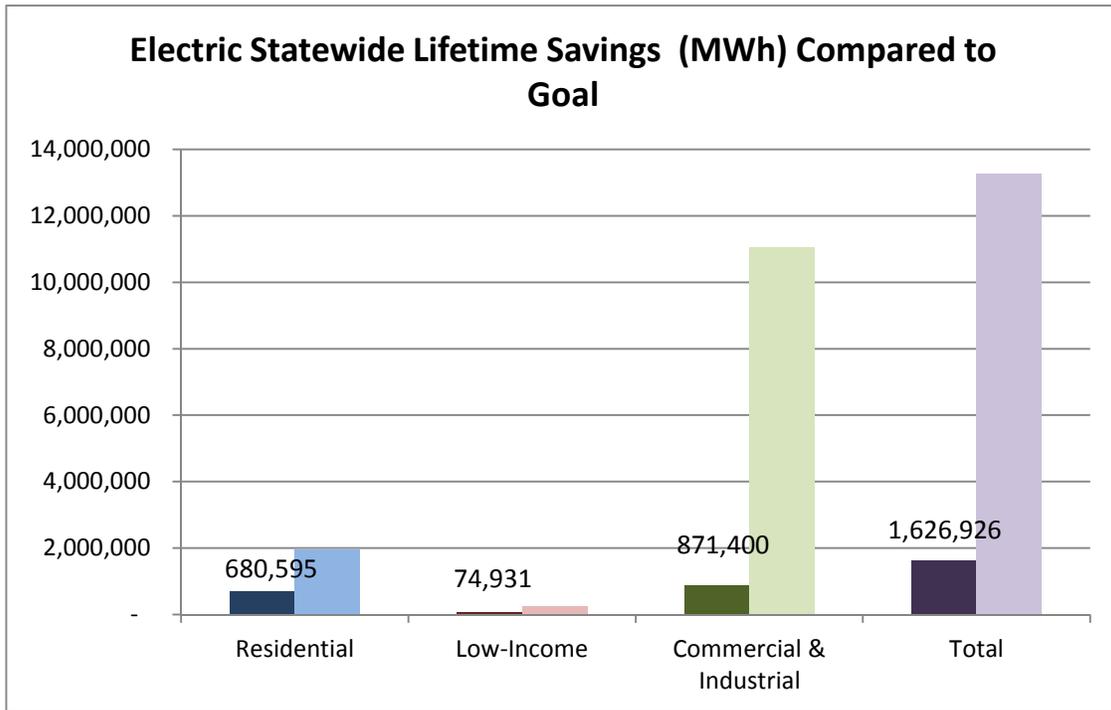
ELECTRIC STATEWIDE BUDGETS, Q1 2014



ANNUAL ELECTRIC STATEWIDE SAVINGS, Q1 2014



LIFETIME ELECTRIC STATEWIDE SAVINGS, Q1 2014



Q1 2014 Statewide Gas Budgets (January 31, 2014 through March 31, 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
Gas						
Planned	\$ 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
1. Residential Whole House	\$ 2,417,192	\$ 1,607,933	\$ 38,771,296	\$ 12,767,901	\$ 2,400,734	\$ 57,965,055
2. Residential Products	\$ 1,030,984	\$ 2,095,199	\$ 19,384,415	\$ 2,014,832	\$ 1,075,163	\$ 25,600,593
3. 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
4. Low-Income Whole House	\$ 1,422,891	\$ 1,403,849	\$ 24,559,473	\$ 6,089,880	\$ 1,444,978	\$ 34,921,072
5. 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
6. C&I New Construction	\$ 804,253	\$ 942,394	\$ 15,139,664	\$ 1,827,748	\$ 779,817	\$ 19,493,876
7. C&I Retrofit	\$ 1,289,619	\$ 1,077,525	\$ 23,230,218	\$ 4,401,912	\$ 1,336,139	\$ 31,335,413
8. C&I Hard-to-Measure	\$ 385,938	\$ 487,842	\$ -	\$ 42,686	\$ 58,710	\$ 975,177
Q1	\$ 2,709,221	\$ 1,294,884	\$ 15,951,893	\$ 7,643,499	\$ 627,322	\$ 28,226,819
Residential	\$ 1,291,020	\$ 919,952	\$ 10,773,257	\$ 5,959,623	\$ 380,938	\$ 19,324,790
1. Residential Whole House	\$ 599,213	\$ 534,948	\$ 6,652,870	\$ 5,570,529	\$ 107,620	\$ 13,465,180
2. Residential Products	\$ 198,217	\$ 196,176	\$ 4,110,088	\$ 241,594	\$ 244,577	\$ 4,990,652
3. Residential Hard-to-Measure	\$ 493,590	\$ 188,828	\$ 10,299	\$ 147,501	\$ 28,741	\$ 868,959
Low-Income	\$ 491,980	\$ 102,958	\$ 3,374,238	\$ 924,035	\$ 60,716	\$ 4,953,927
4. Low-Income Whole House	\$ 309,580	\$ 23,725	\$ 3,374,238	\$ 922,746	\$ 59,715	\$ 4,690,004
5. Low-Income Hard-to-Measure	\$ 182,400	\$ 79,233	\$ -	\$ 1,289	\$ 1,001	\$ 263,923
Commercial & Industrial	\$ 926,221	\$ 271,973	\$ 1,804,398	\$ 759,841	\$ 185,668	\$ 3,948,101
6. C&I New Construction	\$ 184,224	\$ 86,982	\$ 793,638	\$ 272,643	\$ 50,051	\$ 1,387,539
7. C&I Retrofit	\$ 303,573	\$ 70,677	\$ 1,010,760	\$ 479,887	\$ 109,235	\$ 1,974,132
8. C&I Hard-to-Measure	\$ 438,423	\$ 114,315	\$ -	\$ 7,311	\$ 26,382	\$ 586,430

YTD AS PERCENTAGE OF Planned	Program Planning and Administration	Marketing and Advertising	Participant Incentive	Sales, Technical Assistance & Training	Evaluation and Market Research	Total Spend
Gas	30%	15%	13%	28%	9%	16%
Residential	30%	20%	18%	39%	11%	22%
1. Residential Whole House	25%	33%	17%	44%	4%	23%
2. Residential Products	19%	9%	21%	12%	23%	19%
3. Residential Hard-to-Measure	58%	21%	1%	45%	24%	26%
Low-Income	22%	7%	14%	15%	4%	14%
4. Low-Income Whole House	22%	2%	14%	15%	4%	13%
5. Low-Income Hard-to-Measure	23%	46%	0%	0%	3%	26%
Commercial & Industrial	37%	11%	5%	12%	9%	8%
6. C&I New Construction	23%	9%	5%	15%	6%	7%
7. C&I Retrofit	24%	7%	4%	11%	8%	6%
8. C&I Hard-to-Measure	114%	23%	0%	17%	45%	60%

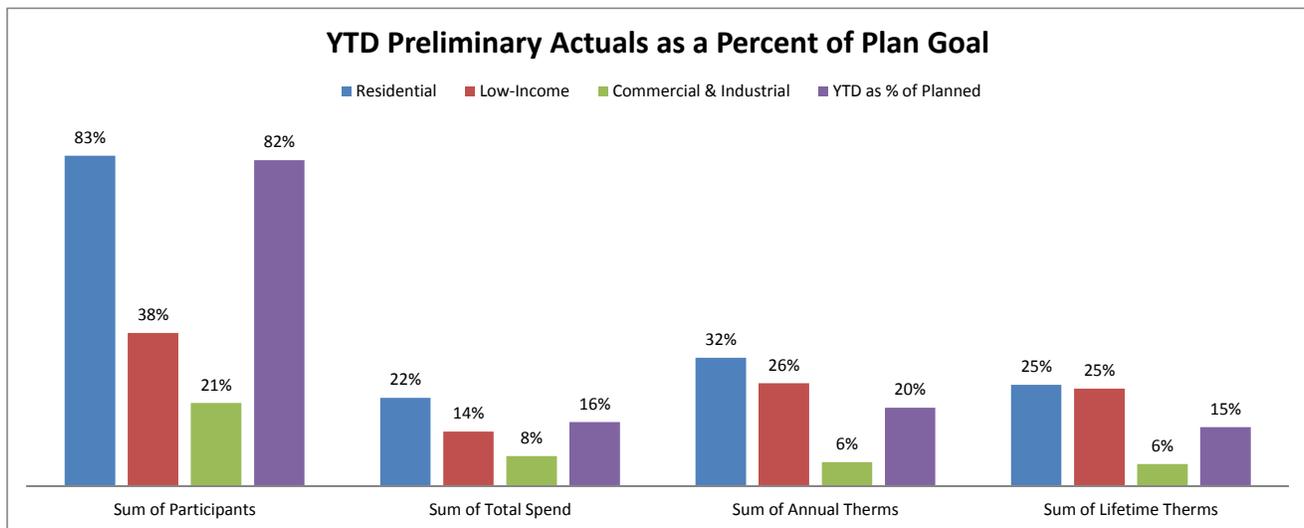
Q1 2014 Statewide Gas Savings (January 31, 2014 through March 31, 2014)

	Total Sum of Participants	Total Sum of Annual Therms	Total Sum of Lifetime Therms
Gas			
Planned	560,883	24,402,858	312,695,505
Residential	549,029	11,607,811	119,006,292
1. Residential Whole House	520,561	9,438,886	78,143,626
1a. Residential New Construction	1,781	372,139	8,723,534
1b. Residential Multi-Family Retrofit	8,688	546,385	9,406,167
1c. Residential Home Energy Services	34,409	2,825,512	54,319,076
1d. Residential Behavior/Feedback	475,683	5,694,849	5,694,849
2. Residential Products	28,468	2,168,925	40,862,666
2a. Residential Heating & Water Heating	28,468	2,168,925	40,862,666
Low-Income	6,840	1,439,072	28,354,751
4. Low-Income Whole House	6,840	1,439,072	28,354,751
4a. Low-Income Single Family Retrofit	2,484	827,356	16,852,525
4b. Low-Income Multi-Family Retrofit	4,356	611,716	11,502,225
Commercial & Industrial	5,015	11,355,976	165,334,462
6. C&I New Construction	1,715	3,892,978	74,127,477
6a. C&I New Construction	1,715	3,892,978	74,127,477
7. C&I Retrofit	3,300	7,462,997	91,206,986
7a. C&I Retrofit	2,173	7,143,505	88,120,031
7b. C&I Direct Install	1,127	319,492	3,086,955
Q1	458,595	4,814,261	46,552,446
Residential	454,914	3,744,706	30,282,986
1. Residential Whole House	447,953	3,094,980	19,428,648
1a. Residential New Construction	1,419	291,697	6,785,436
1b. Residential Multi-Family Retrofit	1,305	53,452	1,076,634
1c. Residential Home Energy Services	6,925	503,647	9,320,396
1d. Residential Behavior/Feedback	438,304	2,246,183	2,246,183
2. Residential Products	6,961	649,726	10,854,338
2a. Residential Heating & Water Heating	6,961	649,726	10,854,338
Low-Income	2,631	372,243	6,961,771
4. Low-Income Whole House	2,631	372,243	6,961,771
4a. Low-Income Single Family Retrofit	423	100,322	2,001,221
4b. Low-Income Multi-Family Retrofit	2,208	271,920	4,960,550
Commercial & Industrial	1,050	697,312	9,307,689
6. C&I New Construction	230	282,890	5,842,338
6a. C&I New Construction	230	282,890	5,842,338
7. C&I Retrofit	820	414,422	3,465,351
7a. C&I Retrofit	694	392,846	3,284,826
7b. C&I Direct Install	126	21,576	180,524

YTD AS PERCENTAGE OF Planned	Participants	Annual Therms	Lifetime Therms
Gas	82%	20%	15%
Residential	83%	32%	25%
1. Residential Whole House	86%	33%	25%
1a. Residential New Construction	80%	78%	78%
1b. Residential Multi-Family Retrofit	15%	10%	11%
1c. Residential Home Energy Services	20%	18%	17%
1d. Residential Behavior/Feedback	92%	39%	39%
2. Residential Products	24%	30%	27%
2a. Residential Heating & Water Heating	24%	30%	27%
Low-Income	38%	26%	25%
4. Low-Income Whole House	38%	26%	25%
4a. Low-Income Single Family Retrofit	17%	12%	12%
4b. Low-Income Multi-Family Retrofit	51%	44%	43%
Commercial & Industrial	21%	6%	6%
6. C&I New Construction	13%	7%	8%
6a. C&I New Construction	13%	7%	8%
7. C&I Retrofit	25%	6%	4%
7a. C&I Retrofit	32%	5%	4%
7b. C&I Direct Install	11%	7%	6%

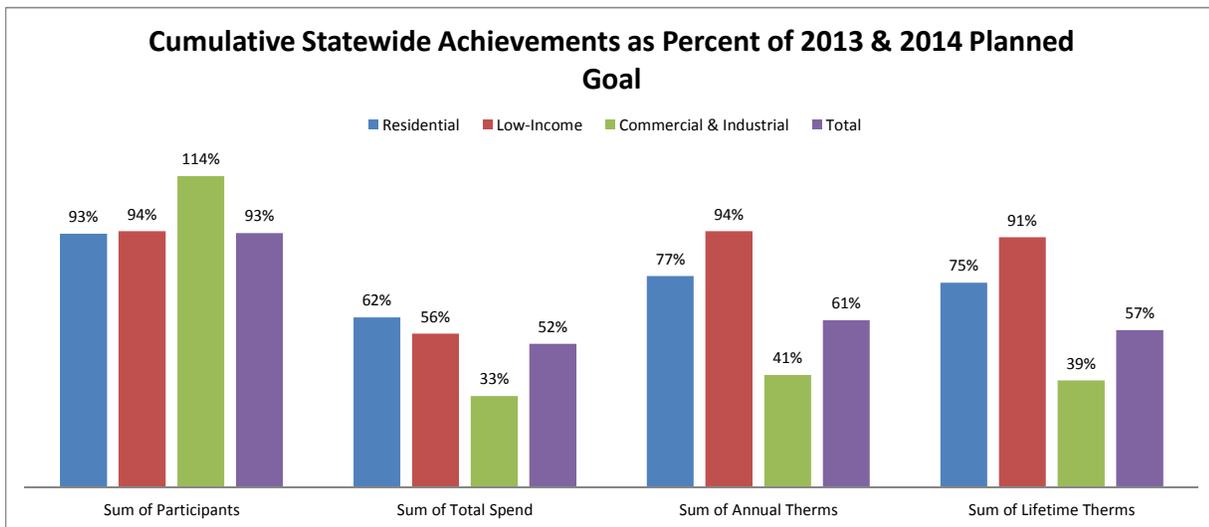
Q1 2014 Statewide Gas Summary (January 31, 2014 through March 31, 2014)

Row Labels	Values			
	Sum of Participants	Sum of Total Spend	Sum of Annual Therms	Sum of Lifetime Therms
Gas				
Planned	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
Q1	458,595	\$ 28,226,819	4,814,261	46,552,446
Residential	454,914	\$ 19,324,790	3,744,706	30,282,986
Low-Income	2,631	\$ 4,953,927	372,243	6,961,771
Commercial & Industrial	1,050	\$ 3,948,101	697,312	9,307,689
YTD as % of Planned	82%	16%	20%	15%
Residential	83%	22%	32%	25%
Low-Income	38%	14%	26%	25%
Commercial & Industrial	21%	8%	6%	6%

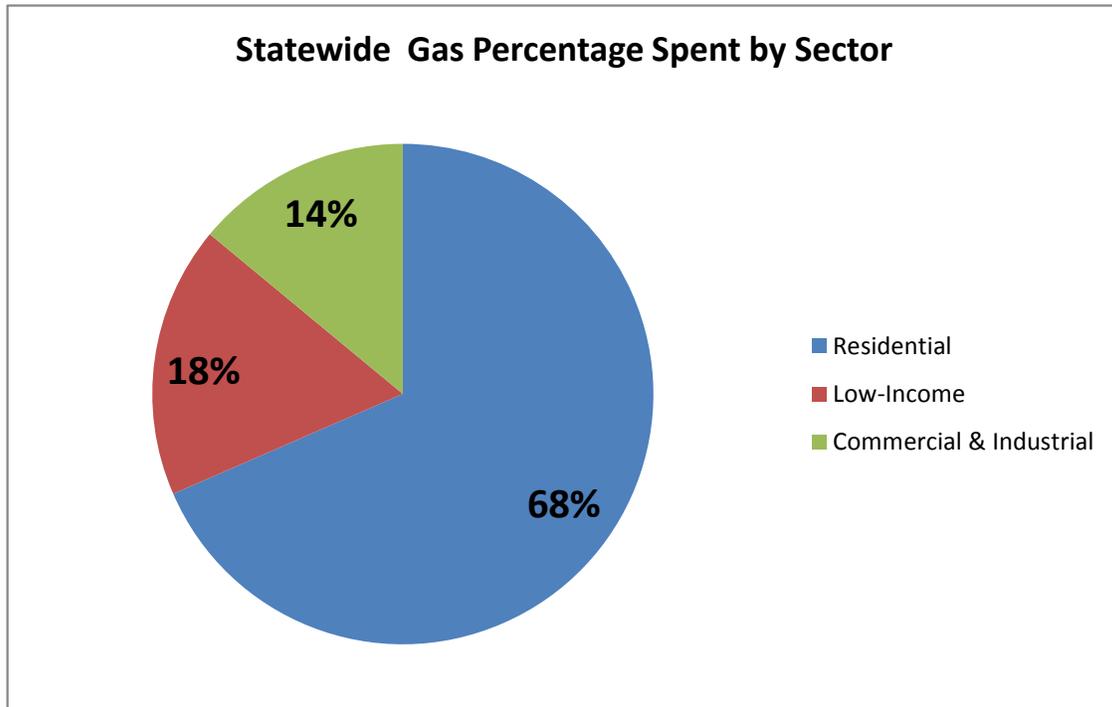
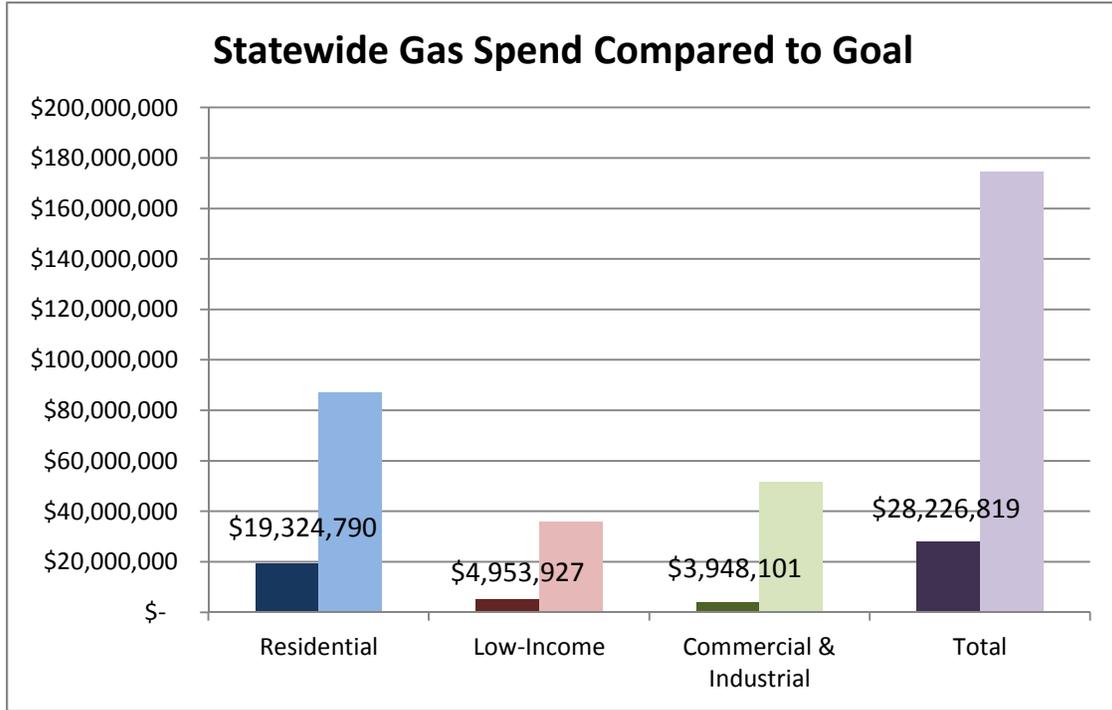


Cumulative Statewide Gas Summary (January 31, 2013 through March 31, 2014)

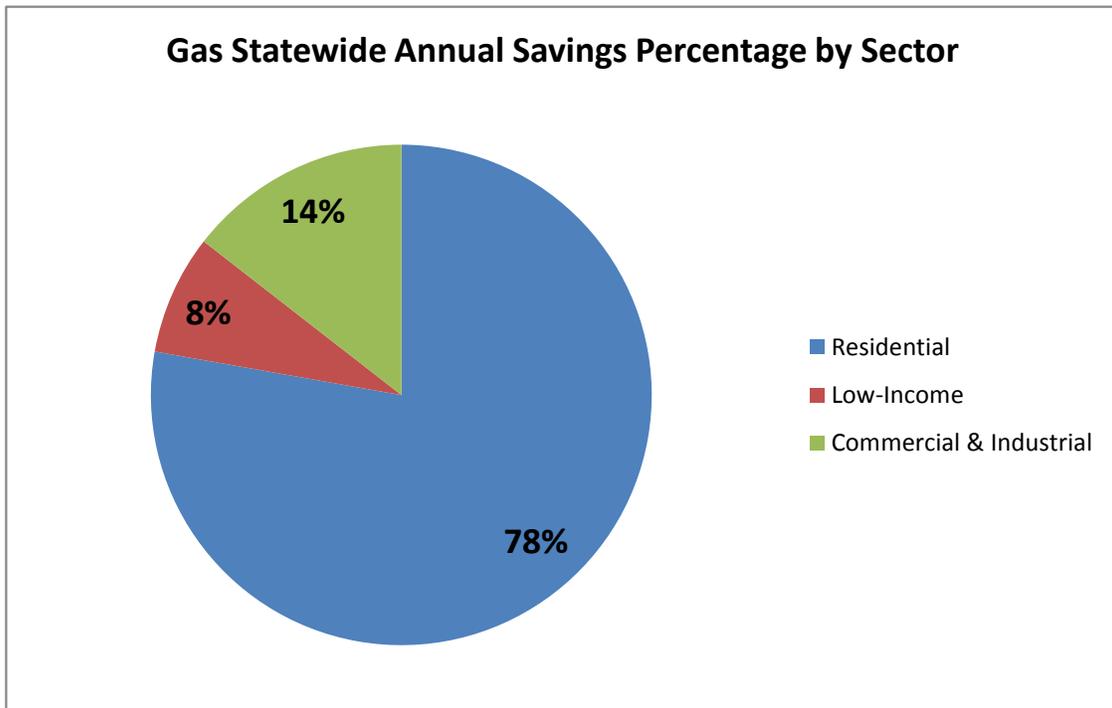
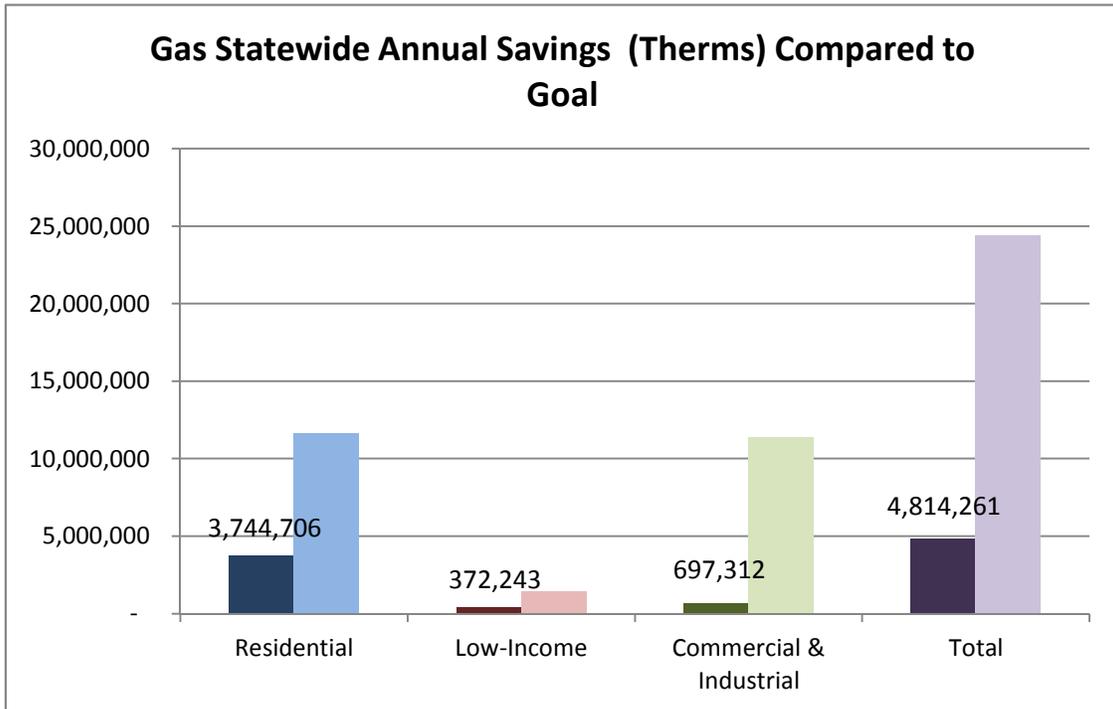
Row Labels	Values			
	Sum of Participants	Sum of Total Spend	Sum of Annual Therms	Sum of Lifetime Therms
Gas				
Planned	1,110,071	\$ 343,115,888	47,065,357	616,220,468
Residential	1,086,719	171,688,550	21,898,593	235,619,596
Low-Income	13,484	70,337,314	2,836,815	55,869,680
Commercial & Industrial	9,868	101,090,025	22,329,949	324,731,193
Q1	1,031,547	\$ 180,032,172	28,738,334	354,188,767
Residential	1,007,696	\$ 106,713,430	16,917,767	176,189,405
Low-Income	12,624	\$ 39,537,495	2,657,791	51,095,609
Commercial & Industrial	11,227	\$ 33,781,246	9,162,775	126,903,754
YTD as % of Planned	93%	52%	61%	57%
Residential	93%	62%	77%	75%
Low-Income	94%	56%	94%	91%
Commercial & Industrial	114%	33%	41%	39%



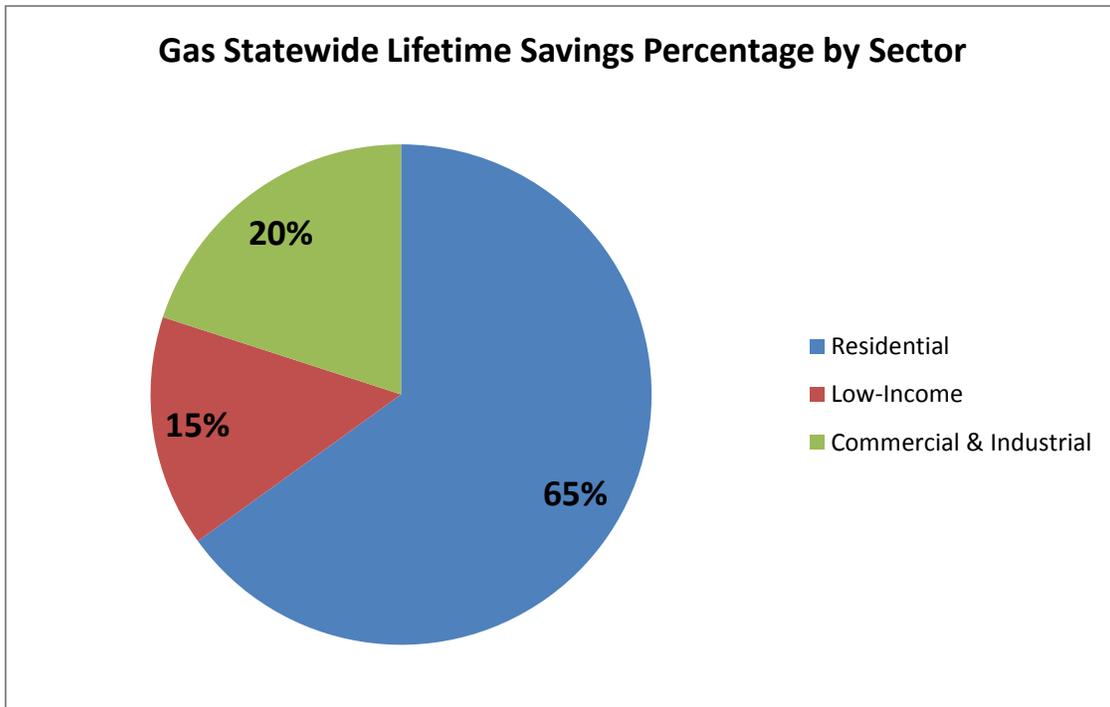
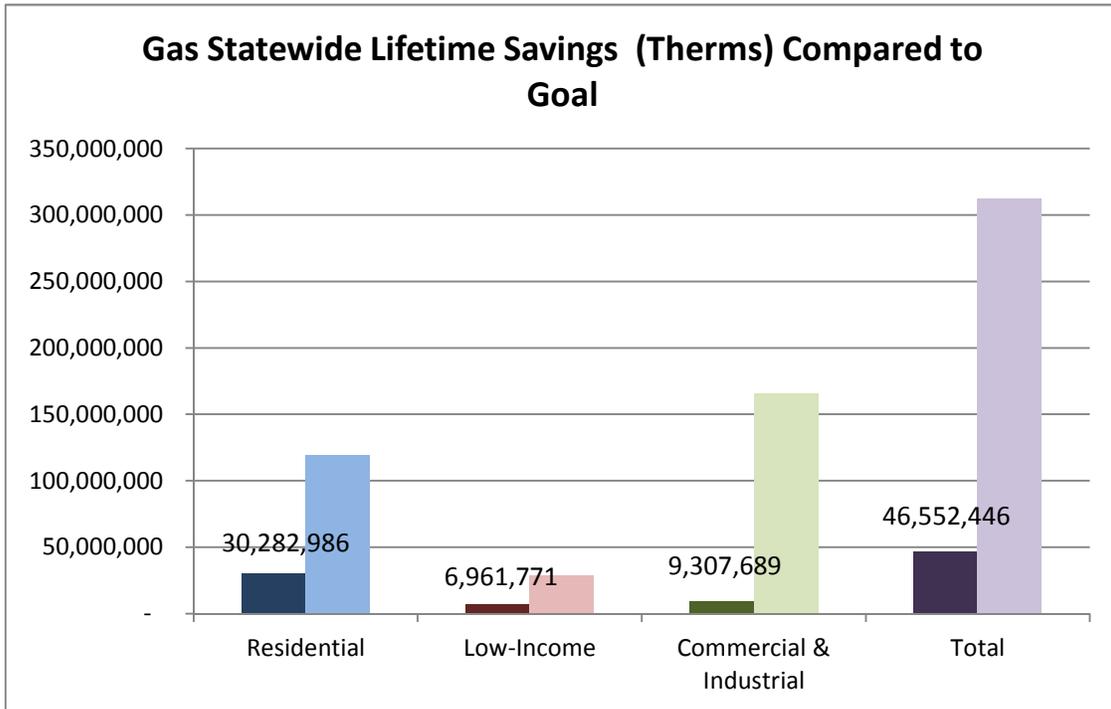
GAS STATEWIDE BUDGETS, Q1 2014



ANNUAL GAS STATEWIDE SAVINGS, Q1 2014



LIFETIME GAS STATEWIDE SAVINGS, Q1 2014



ATTACHMENT B

ADDITIONAL EM&V UPDATE CHARTS

Study Name	Research Area	Study Type	Study Manager	Overall Evaluation Goal (Project Summary/Purpose)	Expected Outcomes	Current Notes
Impact Evaluation of the Upstream Lighting Program (P17)	C&I	Impact	Bill Blake	Impact evaluation of the 2012 Bright Opportunities program	The study will provide updated assumptions based on MA-specific research for the following: Application of purchased lamps by facility/space type; Hours of use; baseline replaced lamp; and gross savings realization rates.	
Mid-Sized Customer Assessment (P19)	C&I	Other	Wendy Todd	Assess whether current program delivery methods are adequately serving the needs of "mid-sized" customers	This study will produce a profile of mid-sized customers across the PAs as well as assess current levels of EE activity/awareness among the mid-sized population and determine if there are specific needs of the population that are not being met by current	This study, along with several others, is leveraging a single C&I customer general population survey effort.
Impact Evaluation of 2011-2012 CHP Installations (P20)	C&I	Impact	Erik Mellen	An impact evaluation of 2011-12 CHP installations	The study will provide realization rates for electricity (kWh); net energy (therms) and coincident peak demand.	Builds on impact evaluation of 2010 CHP installations and will examine a census of all CHP systems finalized in 2010-2012.
Existing Buildings Market Characterization (P21)	C&I	Other	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	
Whole System Approach (P23)	C&I	Other	Kim Crossman	Assess whole system programs and initiatives offered by other utilities and states.	The study will examine 3 existing program offerings to obtain an understanding of the key program features and best practices for attaining deeper savings from whole system approaches. The study will also attempt to determine the feasibility of a whole sy	Presentation on 4/23 to CIMC on Heating Optimization (Xcel Energy). CIMC requested additional research regarding performance metrics. DNVGL to draft a memo outlining research and additional budget

Study Name	Research Area	Study Type	Study Manager	Overall Evaluation Goal (Project Summary/Purpose)	Expected Outcomes	Current Notes
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 compliance rates in current construction projects and will support program development efforts for targeted new construction efforts.	
Impact Evaluation of 2012 Prescriptive Non-Lighting Installations (P30)	C&I	Impact	Whitney Brougher	Impact evaluation of 2012 Prescriptive Non-Lighting Measures	This study will provide revised savings estimates for prescriptive non-lighting measures.	
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 successful.	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	
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.
Roof Top Unit Controller Market Effects (P35)	C&I	Other	Gail Azulay	Baseline Market Effects Study of Roof Top Unit Controllers	This study will establish the baseline penetration of RTU controllers in the C&I market.	Project Closed

Study Name	Research Area	Study Type	Study Manager	Overall Evaluation Goal (Project Summary/Purpose)	Expected Outcomes	Current Notes
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.
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.
C&I Market Effects Study (P42)	C&I	Other	TBD	The overall objective of this study is to capture the net effects over time of Massachusetts' programs to promote a technology to be determined by the PAs.	TBD	
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	
Impact Evaluation of 2013 Custom Electric Installations	C&I	Impact	TBD	It is expected that a new Custom electric study will be performed on the 2013 program year, and will include any or all of CDA, Process and Compressed Air.	TBD	

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	
Northeast Residential Lighting Hours-of-Use Study	Resi	Impact	Matt Nelson	Coordinated regional operating hours of use study with Connecticut, Rhode Island, and NYSERDA	The study will provide hours of use of both efficient and non-efficient light bulbs by room and socket type.	
Residential New Construction Net Impacts Study	Resi	Impact	Mark Sevier	Assess the impacts the RNC program has had on the marketplace over the past seven years	The study will provide estimates of free-ridership and spillover.	
Low Income Metering Study	Resi	Impact	Riley Hastings	Operating hours of use study and secondary heat analysis	The study will provide hours of use of both efficient and non-efficient light bulbs by room and socket type in LI homes.	
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.	

Study Name	Research Area	Study Type	Study Manager	Overall Evaluation Goal (Project Summary/Purpose)	Expected Outcomes	Current Notes
Multi-Stage Lighting Net-to-Gross Study	Resi	Impact Evaluation	Matt Nelson	Estimate net-to-gross (NTG) ratios for key product types incented in the Residential Lighting Program and to assess the associated strategic implications.	NTG Estimates	
Appliance Program Evaluation	Resi	Impact Evaluation	Melanie Coen	This study will explore changes to the way the Appliance initiative is currently delivered, including new marketing strategies or retail partnerships, updated incentives, and other cost-effective options.	TBD	
Incremental Cost Research	Resi	Impact	Gail Azulay	Provide updated incremental cost data for use in cost-effectiveness screening and setting of incentive levels.	The study will provide up-to-date incremental cost data for lighting, appliance and HVAC measures.	
HEHE Impact Evaluation	Resi	Impact	Riley Hastings	Determine gross savings for the HEHE program for a variety of space heating measures.	Gross savings from high efficiency natural gas furnaces and boilers in the HEHE program.	
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	
Advanced Power Strips Evaluation	Resi	Impact Evaluation	Matt Nelson	The goal of this study is to identify alternative program designs that will generate higher participation and savings per participant.	Recommendations for alternative program designs that will generate higher participation and savings per participant.	
HES Program Delivery Assessment	Resi	Impact and Process Evaluation	Mike Goldman	The study will focus on determining accurate conversion rates and other key performance metrics for HES overall, as well as for LVs and HPCs specifically. The study will also explore opportunities for greater and deeper savings	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	TBD	
Low Income Multifamily Impact Evaluation	Resi	Process/ Impact	Riley Hastings	Inventory of the methods currently used to estimate LIMF savings, explore opportunities for standardization where appropriate, assess whether all data required for evaluation are available, and develop PA-specific realization rates for appropriate measure	Statewide methodology for calculating savings and PA-specific realization rates for appropriate measures.	

Study Name	Research Area	Study Type	Study Manager	Overall Evaluation Goal (Project Summary/Purpose)	Expected Outcomes	Current Notes
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	
Multifamily High Rise New Construction Baseline Assessment	Resi	Process	Mark Sevier	Provide a baseline study of new construction building practices in four-story and higher multifamily buildings	Provide a baseline study of new construction building practices in four-story and higher multifamily buildings that can be used to calculate savings	
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	
Trade Ally Panels	Resi	Market Evaluation	Melanie Coen	Explore if data quality, response rates, and data collection costs can be improved by a more systematic data collection approach across programs, markets, and evaluations	Development of trade ally/ market actor panels	
Residential Market Effects Study	Resi	Process	TBD	The overall goal of this study is to document and quantify the net effects over time of Massachusetts' programs to promote a technology to be determined by the PAs.	TBD	Next step involves reviewing program materials and interviewing program managers
Serrafix CMI	S/CC	Process	Monica Cohen	Review of the Northampton/Pittsfield CMI initiatives	Determine if evaluation met specific design metrics.	
Umbrella Mktg - 2013 Post Campaign/MassSave Brand Assessment	S/CC	Other	Phil Moffitt	Assess impact of 2013 marketing campaign and brand effectiveness	Analysis of post-campaign brand awareness	
Umbrella Mktg - COOL SMART/GasNetworks Brand Assessment	S/CC	Other	Phil Moffitt	Assess brand effectiveness	Determine brand effectiveness for CS/GN brands.	
Efficient Neighborhood+ Initiative	S/CC	Other	Melanie Coen	Community Selection and Initiative Framework	Provide a methodology to help PAs determine which neighborhoods are appropriate targets and document the theory behind the initiative.	
Efficient Neighborhood+ Initiative, Phase I	S/CC	Other	Melanie Coen	Evaluation Planning and Readiness	Define initiative's success indicators, capture baseline conditions.	
Efficient Neighborhood+ Initiative, Phase II	S/CC	Other	Melanie Coen	Initiative Evaluation	Assess the performance of the initiative against defined success indicators, and explore opportunities for improvement.	Phase II will start after the completion of Phase I, based on in the field progress

Study Name	Research Area	Study Type	Study Manager	Overall Evaluation Goal (Project Summary/Purpose)	Expected Outcomes	Current Notes
Behavioral Program Persistence Study	S/CC	Impact	Mike Goldman	Determine persistence of behavioral program savings.	Determine to what extent program savings persist without treatment, if the savings do persist what is the impact on measure life, and recommend whether PAs can change treatment models based on these results.	In progress - waiting on Opower to validate participant data
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 - Low Income Health NEIs	S/CC	Other	Marie Abdou	Quantify health related NEIs for LI participants	TBD	Needs review of scope
Non Energy Impacts - Using C&I NEIs for Project Recruitment	S/CC	Other	Marie Abdou	Use data from C&I Retrofit NEI study to inform marketing strategies for implementation	Data to inform implementation market strategies	
Non Energy Impacts - Quantifying C&I New Construction NEIs	S/CC	Other	Marie Abdou	Quantify participant non-energy impacts associated with commercial and industrial new construction projects	NEI values for C&I New Construction projects.	
Retrospective Electric DRIPE	S/CC	Other	Monica Kachru	Assess the level and accuracy of DRIPE as set forth in the 2011 Avoided Energy Supply Cost Study.		

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.