

New York State Energy Research and Development Authority

Energy Efficiency Portfolio Standard (EEPS-2) Program

Quarterly Report to the Public Service Commission
Quarter Ending June 30, 2014

Final Report
September 2014
Revised May 2015

NYSERDA's Promise to New Yorkers:

NYSERDA provides resources, expertise, and objective information so New Yorkers can make confident, informed energy decisions.

Mission Statement:

Advance innovative energy solutions in ways that improve New York's economy and environment.

Vision Statement:

Serve as a catalyst – advancing energy innovation, technology, and investment; transforming New York's economy; and empowering people to choose clean and efficient energy as part of their everyday lives.

Core Values:

Objectivity, integrity, public service, partnership, and innovation.

Portfolios

NYSERDA programs are organized into five portfolios, each representing a complementary group of offerings with common areas of energy-related focus and objectives.

Energy Efficiency and Renewable Energy Deployment

Helping New York State to achieve its aggressive energy efficiency and renewable energy goals – including programs to motivate increased efficiency in energy consumption by consumers (residential, commercial, municipal, institutional, industrial, and transportation), to increase production by renewable power suppliers, to support market transformation, and to provide financing.

Energy Technology Innovation and Business Development

Helping to stimulate a vibrant innovation ecosystem and a clean energy economy in New York State – including programs to support product research, development, and demonstrations; clean energy business development; and the knowledge-based community at the Saratoga Technology + Energy Park® (STEP®).

Energy Education and Workforce Development

Helping to build a generation of New Yorkers ready to lead and work in a clean energy economy – including consumer behavior, youth education, workforce development, and training programs for existing and emerging technologies.

Energy and the Environment

Helping to assess and mitigate the environmental impacts of energy production and use in New York State – including environmental research and development, regional initiatives to improve environmental sustainability, and West Valley Site Management.

Energy Data, Planning, and Policy

Helping to ensure that New York State policymakers and consumers have objective and reliable information to make informed energy decisions – including State Energy Planning, policy analysis to support the Regional Greenhouse Gas Initiative and other energy initiatives, emergency preparedness, and a range of energy data reporting.

NYSERDA Record of Revision

Document Title
Energy Efficiency Portfolio Standard (EEPS-2) Program Quarterly Report to the Public Service Commission Quarter Ending June 30, 2014 September 2014 Revised May 2015

Revision Date	Name of Affected Program(s)/ Plan Components	Description of Changes	Revision on Page(s)
5/21/2015	New Construction MCA Report Summary	Removal of single conclusion relating to downstate new construction market.	A-4
		Addition of recession years	A-4

Energy Efficiency Portfolio Standard (EEPS-2) Program

Quarterly Report to the Public Service Commission

Quarter Ending June 30, 2014

Final Report

Prepared by:

New York State Energy Research and Development Authority

Albany, NY

September 2014
Revised May 2015

Table of Contents

NYSERDA Record of Revision	i
List of Tables.....	iii
1 Introduction.....	1
2 Evaluation Reports Completed	2
3 Evaluation Status Update.....	3
3.1 Recommendation Tracking.....	8
4 Other.....	9
Appendix A: Completed Evaluation Summaries.....	A-1

List of Tables

Table 3-1. Impact Evaluation Schedule and Status	4
Table 3-2. Process and Market Evaluation Schedule and Status.....	6
Table 3-3. Recommendation Tracking.....	8

1 Introduction

This quarterly report reflects progress on Energy Efficiency Portfolio Standard (EEPS-2) Program evaluation activities administered by the New York State Energy Research and Development Authority (NYSERDA).

This report contains the anticipated schedule and status of current and upcoming evaluation studies, summaries of recently-completed evaluations, and the status of evaluation recommendations through June 30, 2014.

Information contained within this report comports with the guidance received from the New York State Department of Public Service (DPS) and discussed by the Evaluation Advisory Group in July 2012 and the E2 Working Group in March 2014.

2 Evaluation Reports Completed

NYSERDA finalized the following evaluation reports in the second quarter of 2014:

- Phase One Process Evaluation and Market Evaluation of the NYSERDA New Construction Program, April 2014
- Market Effects, Market Assessment, Process and Impact Evaluation of the NYSERDA Statewide Residential Point-of-Sale Lighting Program, May 2014

See Appendix A of this report for a high-level summary of each study listed. The full evaluation reports are available on NYSERDA's website.

Also during the second quarter NYSERDA the Existing Facilities Program logic model was updated and is available on NYSERDA's website

3 Evaluation Status Update

Table 3-1 and Table 3-2 provide the anticipated schedule and status of current and upcoming impact, process, and market evaluation activities by program. As applicable, table notes provide further clarification and information about study timing. Planned evaluation projects and timing may change based on input from internal and external stakeholders, the EEPS evaluation review that is underway, and program progress. Likewise, evaluation project schedules are subject to change based on progress in administering the evaluation studies themselves. Future quarterly reports will highlight any timeline revisions. Timeline revisions made this quarter are designated by cell shading. PY denotes program year and Q denotes quarter.

Table 3-1. Impact Evaluation Schedule and Status

EEPS Program	Impact Evaluation Schedule					
	Detailed Evaluation Plan Submittal	Project Kick-off	Data Collection Complete	Draft Report	Final Report	Notes
Industrial & Process Efficiency (Phase 2)	Completed	Completed	Completed	Q3 - 2014	Q4 2014 for M&V	Pre-installation evaluation advisement is ongoing. Early Measurement & Verification (M&V) field work is nearly complete. Draft work plan under review.
Existing Facilities	Completed	Completed	TBD	TBD	Late 2014 - Early 2015	Draft Work plan in review. Early M&V field work is in progress.
Agriculture	TBD	TBD	TBD	TBD	TBD	Evaluation planning on hold.
New Construction	Completed	Completed	TBD	TBD	TBD	Field work in progress.
Agriculture Disaster	Completed	Completed	Completed	Completed	Q3 2014	Final report expected July 2014.
FlexTech	Completed	Completed	Q4 2014	Q2 2015	Q3 2015	Interim report planned for Q4 2014.
Non-Participant Spillover Study	Completed	Completed	Completed	Completed	Completed	Report finalized.
Multifamily Performance Program	Completed	Completed	Completed	Q3 - 2014	Q3 - 2014	Site work completed.

Table 3-1 continued

EEPS Program	Impact Evaluation Schedule					
	Detailed Evaluation Plan Submittal	Project Kick-off	Data Collection Complete	Draft Report	Final Report	
Point of Sale (POS) Lighting	Completed	Completed	Completed	Completed	Completed	Reports for 2012-2013 finalized in May 2014
EmPower New York	Completed	Completed	Phase 2 Q3 - 2014	Phase 2 Q4 - 2014	Phase 2 Q4 - 2014	Phase 1 billing analysis completed. Phase 2 data collection in progress.
Home Performance with ENERGY STAR®	Completed	Completed	Phase 2 Q4- 2014	Phase 2 Q1 - 2015	Phase 2 Q1 - 2015	Phase 1 billing analysis completed. Phase 2 draft work plan for field work is in development. Phase 3 will address attribution.
New York ENERGY STAR® Certified Homes	TBD	TBD	TBD	TBD	2015	There have been multiple program changes which have had substantial impact on the Program. Analysis is underway to determine when sufficient time has elapsed to provide evaluation results that will be of value to the Program. Previous impact evaluation of PY 2007 - 2008 completed in September 2012.

Table 3-2. Process and Market Evaluation Schedule and Status

EEPS Program	Process and Market Evaluation Schedule					
	Detailed Evaluation Plan Submittal	Project Kick-off	Data Collection Complete	Draft Report	Final Report	Notes
Existing Facilities	Completed	TBD	TBD	TBD	2015	Last process evaluation completed in February 2012. Last market evaluation completed in September 2012.
Agriculture	TBD	TBD	TBD	TBD	2016	Evaluation planning on hold.
New Construction	Completed	Completed	Completed	Completed	Completed	Report finalized.
Agriculture Disaster	Completed	Completed	Completed	Completed	Completed	Report finalized.
FlexTech	Completed	Completed	Completed	Completed	Q3 - 2014	Final report expected July 2014.
Multifamily Performance Program	Completed	Completed	Completed	Completed	Q3 - 2014	Final report expected August 2014.
Point of Sale Lighting	Completed	Completed	Completed	Completed	Completed	Reports for 2012-2013 finalized in May 2014.

Table 3-2 continued

EEPS Program	Process and Market Evaluation Schedule					
	Detailed Evaluation Plan Submittal	Project Kick-off	Data Collection Complete	Draft Report	Final Report	Notes
EmPower New York	Completed	TBD	TBD	TBD	TBD	Last process evaluation completed in July 2010.
Home Performance with ENERGY STAR®	Completed	Completed	Q3 - 2014	Q3 - 2014	Q4 - 2014	Program theory and Logic model (PTLM) final draft in review, staff interviews completed, and surveys are in development.
New York ENERGY STAR® Certified Homes	Q2 - 2014	TBD	TBD	TBD	2015	NYSERDA intends to develop a work plan in 2014 for near-term activities that will best inform future programs.
C&I Natural Gas Market Characterization	Completed	Completed	Completed	Completed	Completed	Report finalized.

3.1 Recommendation Tracking

Recommendations generated from NYSERDA evaluation studies are tallied in Table 3-3. These recommendations are categorized as follows:

- Total Number of Recommendations Made to Date: Cumulative number of recommendations contained in final NYSERDA evaluation reports.
- Total Number of Recommendations Implemented to Date: Cumulative number of recommendations contained in final NYSERDA evaluation reports that have been implemented by NYSERDA and incorporated into NYSERDA programs.
- Total Number of Recommendations Rejected to Date: Cumulative number of recommendations contained in final NYSERDA evaluation reports that have been rejected by NYSERDA.
- Total Number of Recommendations Currently in Progress: Cumulative number of recommendations contained in final NYSERDA evaluation reports that NYSERDA is still considering for implementation or rejection.

Table 3-3. Recommendation Tracking

	Through June 30, 2014
Total Number of Recommendations Made to Date ¹	192
Total Number of Recommendations Implemented to Date	147
Total Number of Recommendations Rejected to Date	16
Total Number of Recommendations Currently in Progress	29

¹ The Total Number of Recommendations Made to Date only includes recommendations made in Final (not Interim) evaluation reports.

4 Other

Per the DPS reporting guidance, this section provides an opportunity to report significant activities or events not already reflected in the report. This section is not for reporting routine activities.

There are no other significant activities requiring explanation for the second quarter of 2014.

Appendix A: Completed Evaluation Summaries

This appendix contains a high-level summary of each recently completed evaluation study. The full report on each evaluation study is available on the NYSERDA website. NYSERDA finalized the following evaluation reports in the second quarter of 2014:

- Phase One Process Evaluation and Market Evaluation of the NYSERDA New Construction Program, April 2014²
- Market Effects, Market Assessment, Process and Impact Evaluation of the NYSERDA Statewide Residential Point-of-sale Lighting Program, May 2014³

² <http://www.nyserda.ny.gov/-/media/Files/Publications/PPSER/Program-Evaluation/2014ContractorReports/2014-EMEP-New-Construction.pdf>

³ <http://www.nyserda.ny.gov/-/media/Files/Publications/PPSER/Program-Evaluation/2014ContractorReports/2014-EMEP-pos-lighting-program.pdf>

NYSERDA New Construction Program

Phase One Process Evaluation and Market Evaluation

Evaluation Conducted by Navigant Consulting, Inc, April 2014

PROGRAM SUMMARY

The New York State Energy Research and Development Authority (NYSERDA) New Construction Program (NCP) provides commercial and industrial (C&I) customers and certain types of multifamily residential projects with technical assistance services and capital-cost incentives for electric energy efficiency improvements in new construction or in substantially renovated buildings. The program encourages the incorporation of energy efficiency and green building features in the design, construction, and operation of commercial, industrial, institutional, and larger multifamily residential buildings; NCP serves a multifaceted and technically sophisticated market segment that includes building owners, tenants, and design firms.

EVALUATION OBJECTIVE AND HIGH LEVEL FINDINGS

This evaluation was conducted in 2013 and early 2014.⁴ The primary objectives were to:

- provide a comprehensive understanding of current and emerging markets (e.g., market structure and market actors);
- provide baseline and background information required by NYSERDA to define and deliver programs to target markets; and
- track changes in markets over time, with a specific focus on market indicators in the logic model that are likely to be impacted by program offerings.

Market data and interview responses reveal that the New York State new construction market is generally improving, though annual activity has yet to reach pre-recession levels. The recovering market will present shifting opportunities for the NCP, e.g., for the upstate market, vacant building stock may provide particular opportunities for large renovations. Lower levels of engagement with the commercial, healthcare, and educational sectors suggest that additional opportunities remain, and a lower program penetration downstate (29%) than upstate (50%) suggests that the program may be missing more opportunities in that region. Also, tenant build-outs represent a missed opportunity for which end users and design teams are willing to consider innovative approaches.

⁴ A second phase of evaluation is planned to begin in late 2014, contingent upon the program's activities beyond 2015.

Higher awareness and more efficient standard practices are signs of a transforming market for energy efficiency, making it potentially more difficult for the NCP to continue to claim energy savings from “standard” energy efficiency measures. At the same time, the evaluation revealed three key barriers to more widespread adoption of more advanced technologies (e.g., building energy management systems [BEMS] or system sub-metering): the financial barriers to (and uncertain financial returns of) installing them, mixed reports on whether those systems meet energy savings expectations, and building owner concerns about whether their facilities staff can properly utilize those systems.

EVALUATION RECOMMENDATIONS AND PROGRAM ADMINISTRATOR RESPONSE

Evaluators made the following recommendations for NCP staff to consider. Aspects of these recommendations are promising and may align well with NYSERDA’s future strategy. These recommendations will be given further consideration by NYSERDA staff.

Recommendation #1: Ensure the future success of advanced energy efficiency technologies like BEMS through enhanced technical assistance and facility staff training. Reports about BEMS and other advanced technologies failing to meet owner expectations for energy savings and hesitations about facility staff’s ability to fully understand and optimize those systems represent key barriers to the deeper energy savings those technologies could provide. While the actual energy savings that result from those systems may be difficult to measure, improving standards and baselines for energy efficiency will increasingly diminish the program’s opportunities for pushing buildings to the “next level” for efficiency. The NCP can help to pave the way for enhanced energy efficiency and advanced technologies by increasing its level of technical support for (not just incentivizing) projects that install BEMS and other advanced technologies. For example, such support could include periodic (e.g., bi-monthly or quarterly) reviews of a participating facility’s BEMS and associated energy-use systems to ensure optimal performance and energy savings. Similarly, NYSERDA could offer focused, hands-on training on BEMS and advanced building system operations for facility management staff that would help reduce owner uncertainty around the potential success of or financial return on those systems, potentially in partnership with the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE).

Recommendation #2: Investigate new options for encouraging and incentivizing energy efficiency in tenant build-out projects. Market actors emphasized that the level of energy efficiency incorporated into build-out projects is primarily tenant driven and that such consideration typically need to happen at the beginning of the build-out process (i.e., during lease negotiations). To foster more energy efficient leased spaces, NYSERDA should explore new options for encouraging and incentivizing tenant interest and participation in pursuing efficiency upgrades during major build-out renovations. Investigation of these options should include focus groups or panel discussions with market actors, including design teams, commercial real estate owners and developers, and end users. Such options might include the following:

- **Green Leases:** Green lease arrangements and supporting programs, such as New York City’s Energy Aligned Clause, are gaining more attention and deserve consideration by the NCP as potential opportunities. NYSERDA staff should explore how to leverage these existing green leasing programs and consider ways to further support property owners and tenants in negotiating green leases.
- **Efficiency-Specific Concessions:** Some market actors stated that landlord build-out concessions that are specifically earmarked for energy efficiency could more effectively motivate tenants to incorporate more efficiency into build-out projects. NCP should investigate offering a matching incentive for efficiency-specific build-out concessions, effectively doubling the concession a landlord would provide to a tenant for making energy efficiency improvements.
- **Pre-Packaged Build-Out Measures:** In addition to (or in combination with) concession-driven incentives, NCP should further explore the potential for packaged bundles of pre-approved, build-out appropriate efficiency measures that might help expedite the consideration and inclusion of energy efficiency and program participation during tenant build outs. Pre-packaged bundles could also provide guidance to less advanced design teams to assist them with completing energy efficient projects.

Recommendation #3: Investigate the decrease in NCP participation from LEED-certified buildings and revisit alignment of Whole Building/Green Building incentives with the LEED program. The decrease in the share of LEED-certified buildings that participate in NCP could indicate a combination of several drivers. Beginning in 2009, LEED for New Construction (LEED-NC) required minimum energy performance levels (10% above ASHRAE/Illuminating Engineering Society of North America [IESNA] 90.1-2007) that aligned with the lowest tier for NCP whole building design incentives (9.1%-16% above the same standard).⁵ With access to U.S. Green Building Council (USGBC) data for LEED projects in the state, NCP staff could investigate the degree to which LEED-certified buildings met or exceeded those standards in their designs. Based on those findings, staff could then follow up with specific LEED-certified project representatives to inquire as to why they did not pursue either additional efficiency levels or NCP funding. Findings from this investigation would help staff determine whether to enhance or revisit whole building incentive thresholds or levels to foster more aggressive energy savings targets.

DETAILED PROCESS AND MARKET EVALUATION FINDINGS

Conclusion #1: The recovering market presents shifting opportunities for energy efficient new construction and renovations. Market data and interview responses reveal that the New York State new construction market is generally improving, though annual activity has yet to reach pre-recession levels. As the market continues to improve, key findings suggest the following region- or sector-specific opportunities:

- While public sector projects, many with stimulus funding, helped buoy this market activity during and following the Great Recession (“the Recession”), from December 2007 to June 2009 market data and interview responses indicate that near-term growth will likely shift back to the private sector.
- For the upstate market, vacant building stock may provide particular opportunities for large renovations.

⁵ Program staff should note that the newest update to the LEED rating approach (LEED v.4) was released in late 2013 and uses ASHRAE/IESNA 90.1-2010 as its baseline for efficiency ratings.

Conclusion #2: Overall NCP market penetration has improved, but missed opportunities remain in some sectors. For example, lower levels of engagement with the commercial, healthcare, and educational sectors suggest that additional opportunities remain. A lower penetration downstate (29%) than upstate (50%) suggests that the program may be missing more opportunities in that region.

Conclusion #3: As energy efficiency awareness and demand among end users has improved, so has industry standard practice. While higher awareness and more efficient standard practices are signs of a transforming market for energy efficiency, increasing baselines for these metrics may also make it more difficult for the NCP to claim energy savings from “standard” energy efficiency measures.

Conclusion #4: Despite increased awareness and demand, key barriers to energy efficiency and NCP participation persist. One of the major impacts of the Recession on the new construction market stems from a decrease in the amount of capital available to help finance new construction projects. While news coverage and market actor interviews suggest that the financing landscape is improving, the inclusion of energy efficiency measures in a project still often requires measure-specific analysis of the financial benefits, as well as approval from members of a building owner’s senior leadership team. For more advanced approaches and technologies (e.g., whole building design or building energy management systems) there is less certainty and acceptance about the energy savings that will materialize from those investments.

Conclusion #5: Advanced technologies provide a pathway to enhanced efficiency, but more project support and staff training are needed to foster market acceptance. The evaluation team’s analysis revealed three key barriers to more widespread adoption of advanced technologies (e.g., building energy management systems [BEMS] or system sub-metering): the financial barriers to (and uncertain financial returns of) installing them, mixed reports on whether those systems meet energy savings expectations, and building owner concerns about whether their facilities staff can properly utilize those systems.

Conclusion #6: Tenant build-outs represent a missed opportunity for which end users and design teams are willing to consider innovative approaches. Market actors report that incoming tenants generally place a low priority on energy efficiency and that project timeline considerations present a significant barrier to both enhanced efficiency and NCP participation. However, current downstate market activities may present a good opportunity for the NCP to foster greater adoption of energy efficient build-outs. High Class A office space vacancy rates imply increased bargaining power for tenants, and PlaNYC’s Greener, Greater Buildings Plan is expected to increase owner and tenant awareness of energy efficiency opportunities. Potential approaches the Team discussed with market actors included setting aside landlord concessions specifically for efficiency improvements and NCP offering packaged bundles of pre-approved efficiency measures for tenant build-outs.

Conclusion #7: A divergence in projects that pursue LEED certification from those that participate in NCP suggests misalignment of the two programs' whole building design goals. While LEED certifications for buildings in New York State have continued to climb over the past few years, the share of those projects that receive NCP incentives has dropped sharply (from 57% at the end of 2007 to just 22% at the end of 2012).

EVALUATION METHODS AND SAMPLING

Evaluators used a two-stage approach to address the evaluation objectives. First, the team conducted an initial market characterization analysis using mostly secondary data sources. The team supplemented these preliminary findings with information gathered during a series of in-depth interviews with a wide range of market actors (e.g., building owners, design teams, and design and construction trade organizations).

NYSERDA Residential Lighting Point-of-Sale Program: Market Assessment/Market Effects, Impact and Process Evaluation Summary

Prepared by: NMR Group, Inc., Apex Analytics, LLC, and Research Into Action, May, 2014

PROGRAM SUMMARY

The Residential Point-of-Sale (POS) Lighting Program (the POS Program) aims to transform the residential lighting market throughout the NYSERDA service area, primarily by providing incentives or “discounts” to manufacturers and retailers to increase sales of energy-efficient lighting products and permanent product shelf space relative to less efficient bulbs, and by educating consumers. In 2010 and 2011, the Program offered discounts for both standard (bare spiral) CFLs and a wide range of specialty CFLs (SCFLs). In 2011, screw-base LEDs were added to the POS Program and in 2012 support for standard CFLs was dropped at the direction of the New York Department of Public Service (DPS). Late in 2012, the DPS approved the addition of a sales performance component, the Sales Performance Program (SPP), focusing on standard (bare spiral) CFLs and A-shaped lamps with no special features. The SPP was launched in 2013.

EVALUATION OBJECTIVES AND HIGH LEVEL FINDINGS

The primary goals of this evaluation were (1) to measure and verify the savings attributable to the program during the period from July 2010 through the end of 2012, (2) to assess the residential lighting market to identify remaining opportunities for savings, and (3) to assess program efficiency and effectiveness during the study period through a process evaluation. This evaluation report does not include the SPP.

The study recommends net-to-gross (NTG) values by bulb type and year, and includes estimates of first-year savings, net sales, peak demand, and effective net lifetime savings. Some key market findings are that CFL sales and socket saturation appear to be stagnating; LED saturation remains low but LED satisfaction is higher than for CFLs; incandescent stockpiling appears to be limited while significant numbers of phased-out legacy bulbs remain available; and few consumers are aware of the Lighting Facts label or understand lumens. Some key program findings are that eliminating support for standard CFLs sharply reduced program activity and sales volume and affected the mix of retailer partners and the ratio of bulbs sold by channel, while large, frequent program changes resulted in programming gaps and loss of momentum.

EVALUATION RECOMMENDATIONS AND PROGRAM ADMINISTRATOR RESPONSE

The market insights from this study have been informative and the specific programmatic recommendations below will be considered if applicable to NYSERDA’s evolving strategies.

Recommendation 1: Be more aggressive with lighting to counter the stagnation in socket saturation and sales. To this end, consider (1) promoting LEDs more assertively. If NYSERDA wishes to meet aggressive near-term program goals, also consider (2) asking permission of the DPS to add standard, bare spiral CFLs back into the discount portion of the Program for a limited period, until LED prices drop further.

Recommendation 2: Consider alternative options for increasing retailer participation in the POS Program going forward, and look for ways to ease partner participation.

Recommendation 3: Consider focusing some marketing attention on selected aspects of consumer education, such as those for which market progress indicators showed substantial room for growth.

Recommendation 4: To help program staff monitor performance on an ongoing basis, request that Lockheed Martin add segmentation categorizations based on store channel to its tracking system and include program sales by channel as part of its regular reporting to NYSERDA. To help improve the quality and cost of data collection down for future evaluations, consider changing the partnership agreement to allow Lockheed Martin to share sales data in confidence with the firm(s) conducting evaluation.

Recommendation 5: Consider reducing the price threshold for specialty CFLs.

Recommendation 6: Investigate the value of co-branding marketing materials.

Recommendation 7: Leverage existing partnerships with other organizations, such as NEEP and CEE, to improve information regarding qualifying ENERGY STAR products.

DETAILED MARKET ASSESSMENT, MARKET EFFECTS, IMPACT AND PROCESS EVALUATION FINDINGS

The study recommends using the following NTG values: (1) for Standard CFLs for 2011 and the second half of 2010, 64%; (2) for specialty CFLs for 2011, 87% and for 2012, 71%; and (3) for LEDs for 2011, 90% and for 2012, 75%.

Net sales of program bulbs were 1,520,6253 bulbs in the second half of 2010 and 2,732,841 in 2011, primarily for standard CFLs; 128,310 bulbs in 2012 for specialty CFLs; and 117,668 bulbs in 2012 for LEDs.

Peak winter demand savings across the period were highest in 2011 due to having a full year of data and the program still including standard CFLs. Peak winter demand savings for CFLs in 2011 were 34.1 MW, while peak summer demand savings for the same period were 9.1 MW.

Effective net lifetime savings were 641,717 MWh in the latter half of 2010 and 967,759 MWh in 2011, primarily from standard CFLs; 50,049 MWh from specialty CFLs in 2012; and 97,214 MWh from LEDs in 2012.

Some additional key findings about the program were that:

- Some partners experience difficulty implementing the Outreach, Education, and Marketing requirement;
- The price threshold and discount limit on bulbs may be a constraint on the POS program;
- POS program participation is unusually difficult for partners, and the time required to process reimbursements for discounts poses an administrative, and in some cases financial, burden to partners;
- The ENERGY STAR qualifying products list can make it difficult to determine which bulbs qualify for the POS Program;
- The POS Program has recruited and retained as partners all three of the largest lighting manufacturers, and all of the medium-sized manufacturers;
- The change to NYSERDA picking up 100% of discounts in 2012 for products addressed by the program (LEDs and specialty CFLs) benefitted the program; and
- Partners have very positive perceptions of program and implementation staff.

EVALUATION METHODS AND SAMPLING

The evaluation team conducted primary data collection activities for this study between December 2012 and August 2013. Activities included: In-depth interviews with eight program and implementation staff, 15 participating manufacturers and six participating retailers, three non-participating manufacturers and three nonparticipating retailers; and a random-digit dial telephone survey of 720 consumers in the NYSERDA area, 300 from a Low program activity area, 300 from a Moderate program activity area, and 600 from a High program activity area. In addition, the team conducted an onsite socket inventory of 259 randomly selected households in the NYSERDA area. In conjunction with the evaluation, NYSERDA participated in the 2014 Northeast Residential Lighting Hours-of-Use (HOU) Study.

NYSERDA, a public benefit corporation, offers objective information and analysis, innovative programs, technical expertise, and funding to help New Yorkers increase energy efficiency, save money, use renewable energy, and reduce reliance on fossil fuels. NYSERDA professionals work to protect the environment and create clean-energy jobs. NYSERDA has been developing partnerships to advance innovative energy solutions in New York State since 1975.

To learn more about NYSERDA's programs and funding opportunities, visit nyserderda.ny.gov or follow us on Twitter, Facebook, YouTube, or Instagram.

**New York State
Energy Research and
Development Authority**

17 Columbia Circle
Albany, NY 12203-6399

toll free: 866-NYSERDA
local: 518-862-1090
fax: 518-862-1091

info@nyserderda.ny.gov
nyserderda.ny.gov



State of New York
Andrew M. Cuomo, Governor

Energy Efficiency Portfolio Standard (EEPS-2) Program

Quarterly Report to the Public Service Commission
Quarter Ending June 30, 2014

Final Report
September 2014
Revised May 2015

New York State Energy Research and Development Authority
Richard L. Kauffman, Chair | John B. Rhodes, President and CEO

