



# **NEW YORK'S SYSTEM BENEFITS CHARGE PROGRAMS EVALUATION AND STATUS REPORT**

**QUARTERLY REPORT TO THE PUBLIC SERVICE COMMISSION**

**QUARTER ENDING JUNE 30, 2010**

**FINAL REPORT**

**AUGUST 2010**





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# 1

## Introduction

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This report provides an update on the progress of New York's System Benefits Charge (SBC) funded programs toward meeting their stated goals. It contains evaluation results on activities through the quarter ending June 30, 2010. The last full annual report on progress (through December 31, 2009) was issued in March 2010.<sup>1</sup>

The 13-year **New York Energy \$mart<sup>SM</sup>** Program, administered by the New York State Energy Research and Development Authority (NYSERDA), was initiated in 1998 by order of the New York State Public Service Commission<sup>2</sup> (Commission) and embodies three funding cycles.<sup>3</sup> The Program portfolio consists of numerous initiatives promoting energy efficiency and demand management, facilitating renewable energy development, providing energy services to low-income New Yorkers, and conducting research and development. The activities pursued by the Program include disseminating information to increase consumer energy awareness, marketing, providing financial incentives, developing and testing new products, commercializing new technologies, and gathering data and information.

In its June 23, 2008 Order<sup>4</sup>, the Commission established the State's Energy Efficiency Portfolio Standard (EEPS) and approved a subset of "Fast Track" programs to commence immediately. The Order also directed NYSERDA to submit a supplemental revision to its SBC Operating Plan incorporating the Fast Track programs, including enhancements to the SBC Fast Track programs. The supplemental revision, approved by the Department of Public Service (DPS) on March 12, 2009, served as the vehicle to incorporate the Fast Track programs into NYSERDA's existing SBC Program portfolio.<sup>5</sup>

A series of other PSC Orders issued during the latter half of 2009 and early 2010 authorized NYSERDA to further expand and add to its programs. In addition to the electric SBC, the PSC commenced collection of a natural gas SBC in order to allow NYSERDA and other program administrators to broaden or begin

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<sup>1</sup> New York State Energy Research and Development Authority, *New York Energy \$mart<sup>SM</sup> Program Evaluation and Status Report, Final Report*, March 2010.

<sup>2</sup> Case 94-E-1052, *et al.*, In the Matter of Competitive Opportunities Regarding Electric Service, Opinion 98-3, issued January 30, 1998.

<sup>3</sup> The most recent cycle was initiated with the New York State Public Service Commission order in Case 05-M-0900, In the Matter of the System Benefits Charge III, *Order Continuing the System Benefits Charge (SBC) and the SBC-funded Public Benefit Programs*, issued and effective December 21, 2005.

<sup>4</sup> Case 07-M-0548, Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard, *Order Establishing Energy Efficiency Portfolio Standard and Approving Programs*, issued and effective September 23, 2008.

<sup>5</sup> New York State Energy Research and Development Authority, *System Benefits Charge Supplemental Revision for New York Energy \$mart<sup>SM</sup> Programs (2008-2011) As Amended August 22, 2008 and revised March 12, 2009*.

offering services for gas efficiency measures. In total, the additional NYSERDA program approvals constitute \$530.1 million in funding through 2011, including approximately \$346 million in electric funding and nearly \$184 million in natural gas funding. The PSC ordered that NYSERDA submit operating plans for each of these new or expanded programs, most of which have been approved by DPS. As those filings are approved by DPS and programs commence, evaluation and status updates will be included in NYSERDA's future reporting.

By mid-2011, the SBC funds and interest earnings from the three **New York Energy \$mart<sup>SM</sup>** Program rounds and the approved NYSERDA-administered EEPS programs will have provided more than \$2.3 billion to support a full range of programs to help the State meet its energy challenges.<sup>6</sup>

This document combines reporting requirements of the original **New York Energy \$mart<sup>SM</sup>** programs with the additional reporting requirements for the approved EEPS programs. For purposes of this report, the **New York Energy \$mart<sup>SM</sup>** Program refers to the original 13-year program and the EEPS Program refers to the approved EEPS Programs. The SBC Program refers to the portfolio of programs and includes both **New York Energy \$mart<sup>SM</sup>** and EEPS funding sources. Thus, this evaluation report provides an update for the **New York Energy \$mart<sup>SM</sup>** Program as well as the approved EEPS Programs.

## 1.1 Organization of the Report

This report was prepared by NYSERDA staff with contributions from a team of independent third-party evaluation contractors. The evaluation contractors work closely with NYSERDA's program implementation staff and contractors, customers, and market and trade allies to develop an understanding of the Program offerings and to conduct independent assessments of the Program's impacts and progress toward the established public policy goals. The evaluation functions covered by the specialty contractor teams are: impact evaluation; market characterization and assessment; and process assessment and evaluation management. This report is divided into the following sections:

- Section 1 Introduction
- Section 2 Portfolio-Level Reporting
- Section 3 Commercial/Industrial Programs
- Section 4 Residential and Low-Income Programs
- Section 5 Research and Development Programs
- Appendix A: Narrative and Metrics Reporting on EEPS Programs<sup>7</sup>
- Appendix B: Program Logic Models

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<sup>6</sup> In addition to NYSERDA's **New York Energy \$mart<sup>SM</sup>** and EEPS programs, funded through the SBC, the PSC also provided funding for New York utilities to administer EEPS programs. Furthermore, the New York Power Authority (NYPA) and Long Island Power Authority (LIPA) each offer complementary public benefits programs of their own. The three authorities coordinate program design and delivery wherever practicable to maximize the use of public funds and to ensure a coordinated statewide effort to meet public policy goals. The results of the utility, NYPA, and LIPA programs are not included in this report.

<sup>7</sup> This appendix provides a compilation of quarterly narrative and numeric progress updates required by the Department of Public Service in its June 29, 2009 *Energy Efficiency Program Information Reporting Manual* for the EEPS Programs.

# 2

## Portfolio-Level Reporting

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### 2.1 System Benefits Charge Budget and Spending Status

This section presents financial data for the System Benefits Charge (SBC)-funded Programs. Table 2-1 provides summary level budget and spending data for both the **New York Energy \$mart<sup>SM</sup>** and Energy Efficiency Portfolio Standard (EEPS) Programs. Sections 2.1.1 and 2.1.2 provide further breakout of budget and spending for each individual **New York Energy \$mart<sup>SM</sup>** and EEPS-funded program, respectively.

**Table 2-1. Financial Status of New York's System Benefits Charge Programs through June 30, 2010 (\$ million)**

	Total Budget	Total Funds Spent	% of Budget Spent
<b>New York Energy \$mart<sup>SM</sup></b> Program (Original 13-Year Budget)	\$1,892.1	\$1,367.0	72.2%
EEPS Programs	\$447.1	\$38.8	8.7%
<b>Total SBC Programs</b>	<b>\$2,339.2</b>	<b>\$1,405.8</b>	<b>60.1%</b>

Totals may not sum exactly due to rounding.

Source: NYSERDA

#### 2.1.1 New York Energy \$mart<sup>SM</sup> Program Budget Spending Status

This section presents financial data for the **New York Energy \$mart<sup>SM</sup>** Program from 1998 through June 30, 2010. Of the \$1.89 billion, 13-year budget, \$1.68 billion is allocated to five major program areas: Commercial/Industrial (C/I), Residential, Low-Income, Research and Development (R&D), and a general awareness marketing campaign. The percentage of each program area budget spent to date is: 69.1% for C/I, 90.8% for Residential, 77.1% for Low-Income, 54.9% for R&D, and 75.4% for general awareness. Budgets and spending are presented in Table 2-2 along with costs for program administration, evaluation, Environmental Disclosure<sup>8</sup>, the New York State Cost Recovery Fee<sup>9</sup>, and DPS Evaluation Consultant.

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<sup>8</sup> This program provides electricity commodity suppliers with data for informing customers about the fuel mix and associated environmental impacts of their electricity sources.

<sup>9</sup> The New York State Cost Recovery Fee is assessed for services to public authorities. The fee is determined by the New York State Division of Budget and imposed and collected by the Department of Taxation and Finance.

Table 2-3 shows the budget and spending for individual New York Energy Smart<sup>SM</sup> programs.

**Table 2-2. Financial Status of the New York Energy Smart<sup>SM</sup> Program through June 30, 2010 (\$ million)**

	Total 13-Year Budget <sup>1</sup>	Funds Spent			
		SBC I & SBC II <sup>2</sup>	SBC III <sup>3</sup>	Total Spent	% of Budget Spent
Program Area					
Commercial/Industrial	634.0	247.1	191.1	438.2	69.1%
Residential	312.8	165.4	118.5	283.9	90.8%
Low-Income	318.6	86.6	159.1	245.7	77.1%
Research and Development	385.3	105.9	105.7	211.5	54.9%
General Awareness <sup>4</sup> (Marketing)	31.0	15.9	7.5	23.4	75.4%
Program Areas Total	\$1,681.6	\$620.9	\$581.9	\$1,202.8	71.5%
Other Costs					
Program Administration	128.4	59.8	56.5	116.4	90.6%
Metrics and Evaluation <sup>5</sup>	51.5	14.5	10.8	25.3	49.1%
Statewide Evaluation Protocol Development <sup>6</sup>	2.1	0.0	0.0	0.0	0.0%
Environmental Disclosure	1.9	0.8	-0.8	<0.1	2.5%
NYS Cost Recovery Fee	25.4	9.2	12.9	22.1	87.0%
DPS Evaluation Consultant <sup>7</sup>	1.1	0.0	0.4	0.4	36.2%
Other Costs Total	\$210.5	\$84.3	\$79.9	\$164.2	78.0%
Total New York Energy \$mart <sup>SM</sup> Program	\$1,892.1	\$705.2	\$661.8	\$1,367.0	72.2%

<sup>1</sup> Reflects reallocation of funding among programs as approved by the Public Service Commission.

<sup>2</sup> SBC I: July 1, 1998 through June 30, 2001; SBC II: July 1, 2001 through June 30, 2006.

<sup>3</sup> SBC III: July 1, 2006 through June 30, 2011.

<sup>4</sup> General Awareness previously included in Residential Program Area.

<sup>5</sup> PSC Case 07-M-0548 Order Establishing the Energy Efficiency Portfolio Standard and Approving Programs, effective June 23, 2008 increased the SBC evaluation budget from 2% to 5% of program funding, thus adding \$17.1 million.

<sup>6</sup> Represents funding for the Northeast Energy Efficiency Partnerships (NEEP) Regional Evaluation, Measurement & Verification (EM&V) forum; which is administered by NYSERDA on behalf of New York EEPS program administrators.

<sup>7</sup> Total budget column reflects a \$250,000 per year budget for 2009, 2010, and 2011 for Department of Public Service Evaluation Consultant – amount approved to be paid from NYSERDA's SBC interest. Order on June 24, 2010 added an additional \$375,000 of EEPS funding.

Totals may not sum exactly due to rounding.

Source: NYSERDA

**Table 2-3. Individual Programs – New York Energy \$mart<sup>SM</sup> Financial Status through June 30, 2010 (\$ million)**

Program	Budget	Funds Spent			
	Total Budget <sup>1</sup>	SBC I & SBC II <sup>2</sup>	SBC III <sup>3</sup>	Total Funds Spent	% of Budget Spent
<b>Commercial/Industrial</b>					
Existing Facilities <sup>4,5</sup>	308.0	135.4	76.0	211.4	68.6%
<b>New York Energy \$mart<sup>SM</sup> Business Partners</b>	43.9	21.1	11.1	32.2	73.5%
Loan Fund and Financing <sup>5</sup>	43.7	12.3	25.3	37.6	86.2%
Energy Smart Focus	18.9	4.8	9.9	14.8	78.2%
New Construction Program	164.4	53.1	56.5	109.6	66.7%
FlexTech Technical Assistance	55.2	20.4	12.2	32.6	59.1%
<b>Total Commercial &amp; Industrial</b>	<b>\$634.0</b>	<b>\$247.1</b>	<b>\$191.1</b>	<b>\$438.2</b>	<b>69.1%</b>
<b>Residential &amp; Low-income</b>					
Single Family Home Performance	107.5	47.4	50.1	97.5	90.7%
Multifamily Building Performance	44.5	18.3	25.1	43.4	97.6%
Market and Community Support Residential	148.9	96.5	36.5	133.0	89.4%
Communities and Education	11.9	3.2	6.8	10.0	83.6%
<b>Subtotal Residential</b>	<b>\$312.8</b>	<b>\$165.4</b>	<b>\$118.5</b>	<b>\$283.9</b>	<b>90.8%</b>
Single Family Home Performance	75.8	22.3	33.9	56.2	74.2%
Multifamily Building Performance	160.0	45.4	73.9	119.3	72.8%
EmPower New York	66.2	14.3	44.4	58.7	88.6%
Buying Strategies & Energy Awareness	16.6	4.7	6.9	11.6	70.0%
<b>Subtotal Low-Income</b>	<b>\$318.6</b>	<b>\$86.6</b>	<b>\$159.1</b>	<b>\$245.7</b>	<b>77.1%</b>
<b>Total Residential and Low-Income</b>	<b>\$631.3</b>	<b>\$252.0</b>	<b>\$277.6</b>	<b>\$529.6</b>	<b>83.9%</b>
<b>Research and Development</b>					
Public Benefit Power Transmission and Distribution	13.0	0.0	2.7	2.7	20.9%
Clean Energy Infrastructure (includes closed program: End Use Renewables)	92.7	19.0	35.1	54.0	58.3%
Distributed Energy Resources: Power Systems Product Development & DG-CHP Demonstrations	149.2	34.0	33.6	67.6	45.3%
Demand Response and Innovative Research	7.0	0.0	.1	.1	0.9%
Electric Transportation	5.0	0.0	1.5	1.5	29.8%
Environmental, Monitoring, Evaluation & Protection	41.5	17.7	11.1	28.9	69.5%
Industrial and Municipal Process Efficiency	13.0	0.0	5.5	5.5	42.3%
Next Generation and Emerging Technologies	42.7	18.3	13.2	31.5	73.8%
Wholesale Renewable Energy Market	20.7	16.5	2.8	19.2	92.9%
Other	0.4	0.4	0	0.4	100%
<b>Total Research and Development</b>	<b>\$385.3</b>	<b>\$105.9</b>	<b>\$105.7</b>	<b>\$211.5</b>	<b>54.9%</b>
General Awareness (Marketing)	31.0	15.9	7.5	23.4	75.4%
<b>Total New York Energy \$mart<sup>SM</sup> Program</b>	<b>\$1,681.6</b>	<b>\$620.9</b>	<b>\$581.9</b>	<b>\$1,202.8</b>	<b>71.5%</b>

<sup>1</sup> Reflects reallocation of funding among programs as approved by the Public Service Commission.

<sup>2</sup> SBC I: July 1, 1998 through June 30, 2001; SBC II: July 1, 2001 through June 30, 2006.

<sup>3</sup> SBC III: July 1, 2006 through June 30, 2011.

<sup>4</sup> The Peak Load Management and Enhanced Commercial / Industrial Performance programs have been combined into the Existing Facilities Program.

<sup>5</sup> Transfer of \$18.3 million from Existing Facilities to Loan Fund and Financing per approval by the PSC of January 27, 2009.

Totals may not sum exactly due to rounding.

Source: NYSDA

### **2.1.2 EEPS Program Budget Spending Status**

This section presents financial data for NYSERDA's EEPS Fast Track Programs and 90-day programs. Financial data is presented from program initiation through June 30, 2010. Budgets and spending for each EEPS program are presented in Table 2-4, and are further categorized per the DPS reporting guidelines within Appendix A.

**Table 2-4. Financial Status of the EEPS Programs through June 30, 2010 (\$ million)**

		Total Budget	Total Funds Spent	% of Budget Spent
Program				
Existing Facilities	Electric	27.2	0.9	3.2%
	Gas	4.0	0.0	0.0%
Commercial New Construction Program	Electric	62.7	2.9	4.5%
	Gas	3.7	0.0	0.0%
Flex Tech Expansion	Electric	14.9	1.8	12.3%
	Gas	1.6	<0.1	0.7%
Industry and Process Efficiency	Electric	92.8	3.9	4.2%
	Gas	14.8	0.1	0.4%
Benchmarking		9.8	0.0	0.0%
CFL Expansion		17.2	5.7	33.3%
Home Performance		21.7	0.4	2.1%
Assisted Home Performance		6.4	0.1	1.2%
New Homes		16.0	0.4	2.7%
Multifamily Performance Program	MPP Electric	1.1	<0.1	3.0%
	MPP Electric Low Income	3.6	0.1	2.6%
	MPP Gas	16.0	0.5	3.0%
	MPP Gas Low Income	11.0	0.1	1.2%
	Geothermal	2.0	0.1	5.0%
	ERMM	11.6	0.3	2.6%
EmPower	Electric	23.6	10.1	42.9%
	Gas	8.6	0.1	0.7%
Workforce Development		5.8	<0.1	0.2%
<b>Subtotal</b>		<b>\$376.2</b>	<b>\$27.5</b>	<b>7.3%</b>
General Awareness		18.1	0.3	1.8%
<b>Program Total</b>		<b>\$394.4</b>	<b>\$27.9</b>	<b>7.1%</b>
Other Costs				
Program Administration		31.3	9.3	29.8%
Metrics and Evaluation		21.4	1.5	7.2%
<b>Other Costs Total</b>		<b>\$52.7</b>	<b>\$10.9</b>	<b>20.7%</b>
<b>Total EEPS Program</b>		<b>\$447.1</b>	<b>\$38.8</b>	<b>8.7%</b>

Totals may not sum exactly due to rounding.

Source: NYSDERDA

## **2.2 Portfolio Level Findings**

This section presents portfolio-level findings for the SBC Program, including achievements from both SBC- and EEPS-funded programs.

### **2.2.1 Summary of System Benefits Charge Programs Benefits**

Table 2-5 shows the cumulative SBC Program benefits through June 30, 2010, and through the last four calendar years. Cumulative annual electric savings have reached 4,294 GWh. Peak demand reduction efforts have led to a total reduction of 1,597 MW that consists of permanent and curtailable demand reductions. Renewable energy generation supported by the **New York Energy \$mart<sup>SM</sup>** Program amounts to 106 GWh.



**Table 2-5. Cumulative SBC Program Benefits from Installed Measures**

Benefits	Through Year-End 2006	Through Year-End 2007	Through Year-End 2008	Through Year-End 2009 <sup>1</sup>	Through June 30, 2010
Electricity Savings from Energy Efficiency and On-Site Generation (Annual GWh)	2,350	3,060	3,220	3,820	4,228
Renewable Energy Generation (Annual GWh)	105	106	106	106	106
Peak Demand Reduction <sup>2</sup> (MW)	1,113	1,200	1,275	1,415	1,607
Permanent Measures (MW)	495	650	700	824	975
Curtable <sup>3</sup>	618	550	575	590	632
Net Fuel Savings (Annual MMBtu)	4,049,000	4,660,000	5,400,000	4,600,000	5,148,000a
Annual Energy Bill Savings to Participating Customers (\$ Million)	\$330	\$570	\$590	\$680	\$812b
Jobs Created and Retained per Year <sup>4</sup>	3,600	4,100	4,400	5,300	5,300c
NO <sub>x</sub> Emissions Reductions <sup>5</sup> (Annual Tons)	2,060	2,570	2,725	3,030	1,940
SO <sub>2</sub> Emissions Reductions <sup>5</sup> (Annual Tons)	3,800	4,720	4,960	5,710	3,840
CO <sub>2</sub> Emissions Reductions <sup>5</sup> (Annual Tons)	1,600,000	2,000,000	2,100,000	2,300,000	2,034,000
Equivalent number of cars removed from NY roadways	320,000	400,000	426,000	464,000	406,000

a Fuel use for two large DG-CHP projects was previously double counted. Correcting for this caused a significant increase in fuel savings this Quarter.

b In previous years, energy bill savings were undercounted because of the estimation approach and mathematical error. Revisions have been made to utilize updated pricing data that has recently become available and to address these savings calculation issues.

c Results shown here are through 2009 for the **New York Energy \$mart<sup>SM</sup>** Program only.

<sup>1</sup>A major DGCHP project supported by both the Technical Assistance and DGCHP programs was installed in Q4 2009 and overlap was not fully netted out in NYSERDA's year-end reporting. Q2 2010 figures have fully netted out the identified overlap. These figures have not been back-adjusted to reflect the change.

<sup>2</sup>Does not include 9.8 MW of renewable energy generation capacity.

<sup>3</sup>Curtable MW has decreased due to a reassessment of the impact of the Enabling Technologies Program. MW enabled under the SBC2 program Enabling Technologies for Price Responsive Load was not required to persist beyond the period of the contract. As such, the MWs available have steadily declined since the program's close.

<sup>4</sup>Figures in this row represent the net additional jobs created through year-end. Results from 2006 through 2009 have been restated based on new analysis conducted in 2010. Job creation was only analyzed for the **New York Energy \$mart<sup>SM</sup>** Program and results do not reflect the recent addition of EEPs programs.

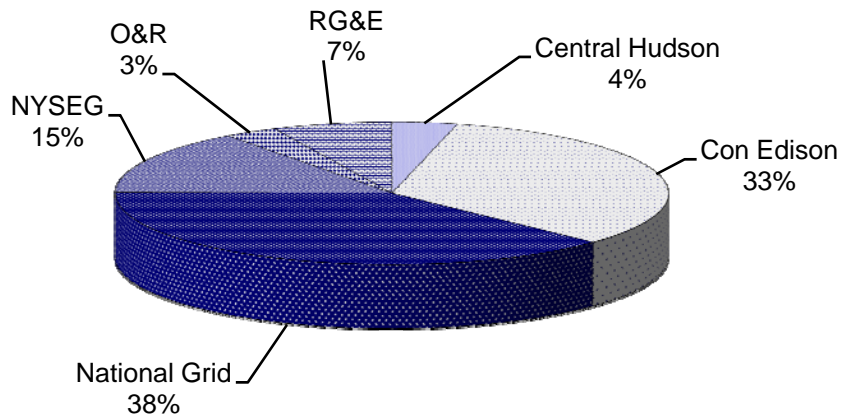
<sup>5</sup>These emission reductions are associated with both electric and fossil fuel saving measures. Under a cap-and-trade system, the total number of emission allowances is determined by regulation. Regulated entities can purchase allowances and collectively emit up to the cap that is currently in place. Therefore, in the near term, electric efficiency projects may not decrease the overall amount of emissions going into the atmosphere. Nevertheless, electric efficiency projects will reduce end-users' responsibility or environmental footprint associated with emissions from electricity production. Beginning in Q1 2010, NYSERDA now estimates reductions in emissions of carbon dioxide (CO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and sulfur dioxide (SO<sub>2</sub>) associated with electric efficiency projects based on average emission rates that include emissions associated with imports of electricity. In the past, NYSERDA has reported emissions reductions using marginal emission factors; this transition to average emission factors was performed to be consistent with a footprint reduction framework.

**Electric and Peak Demand Savings by Utility Service Area**

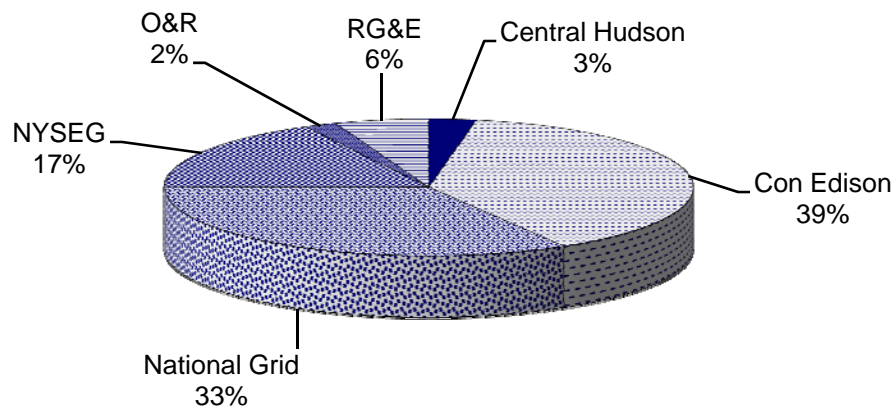
Figure 2-1 and Figure 2-2, respectively, show electricity and demand savings by utility service area for the **New York Energy \$mart<sup>SM</sup>** funded programs. The National Grid (37%) and Con Edison (33%) service areas show the highest percentages of electricity savings. The same service areas, Con Edison (39%) and National Grid (33%), are also seeing the highest percentages of the overall demand reductions. Both of these figures are based on the cumulative annual savings achieved through June 30, 2010. For certain market transformation and informational programs representing approximately 35% of the portfolio electricity savings and 19% of the demand reductions, savings were apportioned to utility areas based on incentive dollars.

Figure 2-3 and Figure 2-4, respectively, show electricity and demand savings by utility service area for the EEPS funded programs, through June 30, 2010. The Con Edison (47%) and National Grid (23%) service areas show the highest percentages of electricity savings. For overall demand reductions, the Con Edison (44%) and National Grid (24%) service areas show the highest percentages.

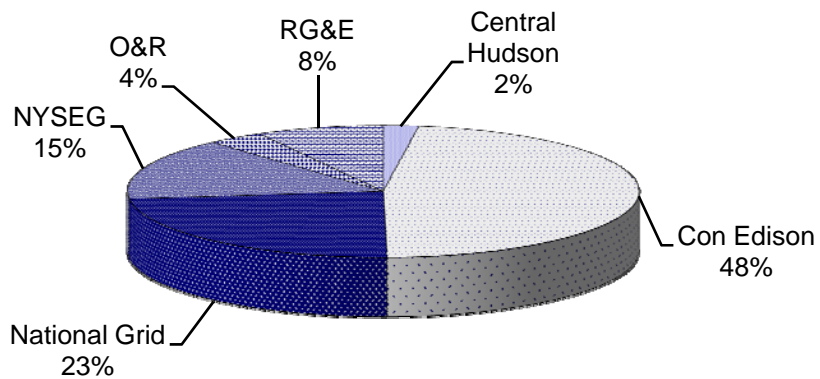
**Figure 2-1. New York Energy \$mart Electricity Savings by Utility through June 30, 2010**



**Figure 2-2. New York Energy \$mart Demand Savings by Utility (includes callable MW) through June 30, 2010**



**Figure 2-3. EEPS Electricity Savings by Utility through June 30, 2010**



**Figure 2-4. EEPS Demand Savings by Utility (includes callable MW) through June 30, 2010**

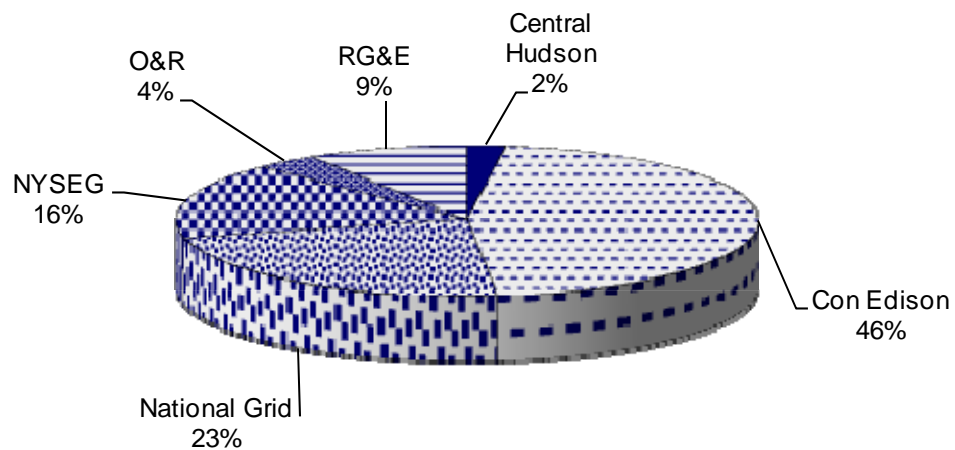


Table 2-6 shows the cumulative annual electricity savings, demand reductions, and other fuel savings from each SBC program, including EEPS programs that have begun. Entries for the Renewable Energy Program represent clean generation rather than reductions in electricity use and demand.

**Table 2-6. Net Cumulative Annual SBC Savings by Program through June 30, 2010**

Program	Adjusted Cumulative Annual Savings		
	GWh	MW	MMBtu
Existing Facilities: Permanent	1,487.2	384.3	-74,018a
Existing Facilities: Callable	N/A	520.7	N/A
<b>New York Energy \$mart<sup>SM</sup> Business Partners</b>	107.5	27.8	N/A
<b>New York Energy \$mart<sup>SM</sup> Loan Fund and Financing</b>	87.9	52.0	598,666
New Construction Program	390.6	94.9	8,786
Flex Tech Technical Assistance: Permanent	1,141.3	208.7	3,459,389
Flex Tech Technical Assistance: Curtailable	N/A	12.5	N/A
Industry and Process Efficiency	23.9	3.6	3,193
<b>C/I Sector Overlap Removed</b>	259.7	53.3	172,969
<b>Subtotal Commercial/Industrial</b>	2,978.7	1,250.9	3,823,046
Single Family Home Performance	56.2	17.2	2,003,040
Multifamily Building Performance	106.7	12.4	907,639
Market and Community Support Program	657.6	136.1	296,607
CFL Expansion	303.7	41.6	N/A
EmPower New York Program	58.5	9.1	183,544
<b>Subtotal Residential and Low Income</b>	1,182.8	216.4	3,390,829
DG-CHP Demonstration Program	367.2	87.6	-3,360,602b
Demand Response and Innovative Rate Research	N/A	99.0	N/A
Renewable Energy Production	106.2	9.8	N/A
<b>Subtotal R&amp;D</b>	473.4	196.4	-3,360,602
<b>Cross Sector Overlap Removed<sup>1</sup></b>	301.2	47.1	-1,295,093
<b>SBC Portfolio</b>	4,333.7c	1,617c	5,148,366

N/A – not applicable, the energy source is not reduced for the particular program.

<sup>1</sup>Represents overlap between the Flex Tech Technical Assistance Program and the DG-CHP Demonstration Program.

a Up to this point, EFP has not tracked ancillary fuel savings or use resulting from installation of electric measures. The negative fuel savings shown represent additional fuel use due to the installation of on-site generation at a very small number of projects that were recently evaluation for impacts. In the future, EFP will begin tracking both fuel savings and use more consistently.

b Because the electricity saved by the DG-CHP projects replaces electricity formerly purchased from the grid, the program has reduced fuel used at central generating stations, for a net decrease statewide due to greater efficiency of the DG-CHP systems at sites where imported fuel is used. The fuel avoided at the central generating plant is determined from the electricity generated by the DG-CHP installations. Furthermore, at additional projects such as waste water treatment plants, electricity generation is powered fully or partially by digester gas produced on site. Such fuel switching achieves natural gas conservation above and beyond what is achieved through efficiency alone.

c This sum includes 106.2 GWh and nearly 10 MW of renewable energy production, whereas the portfolio-level electricity and demand savings from energy efficiency and on-site generation shown in Table 2-5 does not.

### 2.2.2 New York Energy \$mart<sup>SM</sup> Progress Toward Goals

Overall, the New York Energy \$mart<sup>SM</sup> programs are performing well toward their five-year goals<sup>10</sup> in the areas of energy savings, demand reduction, and other key metrics. This section discusses general progress toward these goals. Sections 3, 4, and 5 contain more detailed information. In summary:

- The C/I programs are showing good progress toward their individual electricity and demand savings goals. Progress on the majority of programs has met or exceeded expected levels at this point in the five-year measurement period.
- Within the C/I program area, five different five-year goals have been set for metrics other than energy and peak demand savings. These metrics capture progress in key areas such as the number of customers served, allies participating, and dollars leveraged. The programs are making good progress toward these non-energy goals.
- The Residential and Low-Income programs are making good progress toward their individual electricity and fuel savings goals and most of the programs are performing at expected levels.
- Twenty-eight long-term goals have been set for important non-energy metrics in the Residential and Low-Income areas, including the number of customers participating, outreach efforts and people affected, and dollars leveraged. Overall, the programs are making progress toward these goals.
- Almost 40 long-term, non-energy goals have been set for the R&D portfolio. These goals address metrics such as solicitations released, projects funded, information dissemination, co-funding, and technology transfer. In general, the programs are tracking well toward these long-term, non-energy goals.

## 2.3 Workforce Development

In its June 2009 *Order Authorizing Workforce Development Initiatives*<sup>11</sup>, the Commission approved a Workforce Development (WFD) Program to be administered by NYSERDA. The goals of the program are to overcome the barriers to workforce training and to expand the existing energy efficiency training infrastructure across the State. An additional goal is to increase employment opportunities in energy-efficiency occupations in New York, especially among underserved populations. These program efforts will provide the present and future workforce with the technical skills necessary to serve the needs of the portfolio of programs funded through the EEPS.

PON 1816 for Workforce Development and Training Partnerships for Energy Efficiency continues to receive proposals. During the second quarter, 14 partnership proposals were received requesting nearly \$1.1 million in total funding. In June, NYSERDA requested and was granted an extension from DPS to lengthen the funding timeline for PON 1816. The new schedule extends the deadline for Training

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<sup>10</sup> Five-year goals were specified in the *System Benefits Charge Proposed Plan for New York Energy \$mart<sup>SM</sup> Programs (2006-2011)*, March 2, 2006. These goals were set at the program level, and included energy savings, demand reductions and other important metrics. The five-year goals cover the time period from July 1, 2006 through June 30, 2011.

<sup>11</sup> Case 07-M-0548 Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard, *Order Authorizing Workforce Development initiatives*, issued June 22, 2009.

Partnership applications from August 1, 2010 to December 31, 2011. For individuals seeking funding for professional certification in energy efficiency careers, the application deadline was extended from December 31, 2011 to May 30, 2012. Certifications must be from an approved list of nationally recognized credentialing organizations, and training must be aligned with preparing the participant to meet the requirements of a recognized, credentialed provider such as the Building Performance Institute (BPI).

During the second quarter, current Training Partners and institutional partners conducted certification trainings under PON 1816 across the State, including 76 energy efficiency trainings. The certification courses and areas are expected to expand and diversify with the addition of new Training Partners and the continuing addition of new partnerships with allied agencies, advocacy groups, and trade organizations.

The Career Pathways and Technical Training solicitation (PON 1817), combines \$1.25 million in EEPS WFD funding with \$600,000 in Green Jobs-Green New York (GJGNY) funds for a total of \$1.85 million. This solicitation was released in June and is now receiving proposals. This PON solicits contractors to develop and deliver curriculum for the WFD and GJGNY programs, particularly for the Career Pathways sub population. The deadline for proposals is August 3, 2010.

NYSERDA submitted a detailed evaluation plan for WFD to DPS in June. DPS comments were received and are being addressed in a revised evaluation plan. NYSERDA expects to submit a revised plan to DPS for review in August.





# 3

## ***Commercial/Industrial Programs***

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### **3.1 Commercial/Industrial Evaluation Activities**

#### ***3.1.1 Completed Evaluation Activities***

During the second quarter of 2010, the following evaluation project was completed on the Commercial/Industrial (C/I) programs:

- Business Partners Process Evaluation (See Section 3.4)

#### ***3.1.2 Evaluation Activities in Progress and Planned***

In coming quarters, NYSERDA expects to complete the following evaluation projects:

- Logic models on the Existing Facilities and Energy Smart Focus programs
- Market characterization and assessment evaluations on the Existing Facilities, Business Partners, FlexTech, and Industrial and Process Efficiency programs
- Process evaluations on New Construction, Industry and Process Efficiency, and Energy Smart Focus
- Impact studies on C/I Nonparticipant Spillover, Business Partners, Existing Facilities, FlexTech, Industry and Process Efficiency, and New Construction programs

### **3.2 Summary of C/I Evaluation Results**

#### ***3.2.1 Progress Toward Non-Energy Goals***

As part of the SBC Program, across the C/I programs, five goals were set for other key metrics besides energy savings, such as the number of customers receiving assistance, funds leveraged, and allies participating. These goals are tracked for the **New York Energy \$mart<sup>SM</sup>** Business Partners, **New York Energy \$mart<sup>SM</sup>** Loan Fund and Financing and Energy Smart Focus programs. Now 80% through the five-year measurement period, two of the five goals have been exceeded, and progress on the remaining

three goals is at 80% or less. Please refer to the individual program summaries within Section 3 for details on program progress toward achieving these goals.

### **3.2.2 Energy, Peak Demand and Fuel Savings**

Table 3-1 shows the electricity savings achieved by the C/I programs as well as progress toward the five-year goals that have been established for selected programs. Table 3-2 shows peak demand savings and progress toward several program-specific goals in that area. Table 3-3 shows other fuel savings.

**Table 3-1. C/I Program Cumulative Annual Electricity Savings through June 30, 2010 and Progress toward SBC Goals**

Program	Energy Savings (GWh)				
	Savings achieved through		July 1, 2006 through June 30, 2010	Goal <sup>4</sup>	Progress Toward Goal (% achieved)
	June 30, 2006 (Cumulative)	June 30, 2010 (Cumulative)			
Existing Facilities Program <sup>1</sup>					
New York Energy \$mart <sup>SM</sup>	837.0a	1,478.7	641.7	446b	144%
EEPS	N/A	8.5	8.5	146.3	6%
Business Partners Program	54.1	107.5	53.4	97	55%
Loan Fund and Financing	49.6	87.9	38.2	N/A	N/A
New Construction Program					
New York Energy \$mart <sup>SM</sup>	188.1c	387.7	199.6	323.3d	62%
EEPS	N/A	2.9	2.9	278.9	1%
Flex Tech Technical Assistance <sup>2</sup>					
New York Energy \$mart <sup>SM</sup>	644.1	1,141.3	497.2	466	107%
EEPS	N/A	0.0	0.0	267.1	0%
Industrial and Process Efficiency (EEPS)	N/A	23.9	23.9	840.0	3%
<b>Overlap Removed<sup>3</sup></b>	<b>126.7</b>	<b>259.7</b>	<b>132.9</b>	<b>N/A</b>	<b>N/A</b>
<b>Statewide C/I Total</b>	<b>1,646.3</b>	<b>2,978.7</b>	<b>1,332.5</b>	<b>N/A</b>	<b>N/A</b>

Note: N/A means not applicable (*i.e.*, a goal has not been set for this program).

a Savings reported previously included projects funded through the Con Edison Power Savings Partners Program. These savings have been removed to more accurately reflect accomplishments.

b A post five-year goal of 576 GWh has also been set for this program and reflects expected achievement once all funds are expended.

c These savings were adjusted following an extensive clean-up of the program database, which resulted in a change to the program realization rate applied.

d The New York Energy \$mart<sup>SM</sup> goals for New Construction and Flex Tech were calculated by adding the net SBC3 achievements through Q3 2008 (published in NYSERDA's quarterly report for this time period) to the new SBC goal from NYSERDA's March 12, 2009 Operating Plan.

<sup>1</sup> The original Peak Load Management Program, now a component of the Existing Facilities Program, had a goal of 55 GWh in Con Edison, and had achieved 100% of the goal as of the 1<sup>st</sup> quarter 2010. ECIPP did not have a goal for permanent reduction in Con Edison territory, thus combining the two programs results in the five-year goal not being applicable.

<sup>2</sup> Savings in this row are inclusive of overlap with the R&D DG-CHP Program. This cross-sector overlap is subtracted out at the portfolio level in Table 2-6.

<sup>3</sup> Overlap factors were updated in Q1 2008.

<sup>4</sup> New York Energy \$mart<sup>SM</sup> Program goals are in effect through June 30, 2011. The timeframes for achieving savings goals for the EEPS-funded program vary by program. For the EEPS-funded New Construction Program and Flex Tech Program, the savings goals are through December 31, 2015; for the EEPS-funded Industrial and Process Efficiency Program, the savings goal is through December 31, 2013.

**Table 3-2. C/I Program Cumulative Peak Demand Savings through June 30, 2010 and Progress toward Five-Year SBC Goals**

Program	Peak Demand Savings (MW)				
	Savings Achieved through		July 1, 2006 through June 30, 2010	Five-Year Goal through June 30, 2011 <sup>4</sup>	Progress Toward Five-Year Goal (% achieved)
	June 30, 2006 (Cumulative)	June 30, 2010 (Cumulative)			
Existing Facilities Program Permanent <sup>1</sup>					
<b>New York Energy \$mart<sup>SM</sup></b>	175.0a	382.0	206.6	121	171%
EEPS	N/A	2.3	2.3	N/A	N/A
Existing Facilities: Callable	421.1a	520.7	99.6	285	35%
Business Partners Program	11.8	27.8	16.0	19	84%
Loan Fund and Financing	14.3	52.0	37.7	N/A	N/A
New Construction Program					
<b>New York Energy \$mart<sup>SM</sup></b>	41.0b	94.6	53.6	24.0	223%
EEPS	N/A	0.3	0.3	N/A	N/A
Flex Tech TA <sup>2</sup>					
<b>New York Energy \$mart<sup>SM</sup></b>	120.9	208.7	87.8	80.0	110%
EEPS	N/A	0	0	N/A	N/A
Flex Tech TA: Callable	10.2	12.5	2.4	N/A	N/A
Industrial and Process Efficiency (EEPS)	N/A	3.6	3.6	N/A	N/A
<b>Overlap Removed<sup>3</sup></b>	<b>24.5</b>	<b>53.3</b>	<b>28.8</b>	<b>N/A</b>	<b>N/A</b>
<b>Statewide C/I Total</b>	<b>769.9</b>	<b>1,250.9</b>	<b>481.1</b>	<b>N/A</b>	<b>N/A</b>

Note: N/A means not applicable (*i.e.*, a goal has not been set for this program).

a Savings reported previously included projects funded through the Con Edison Power Savings Partners Program. These savings have been removed to more accurately reflect accomplishments.

b These savings were adjusted following an extensive clean-up of the program database, which resulted in a change to the program realization rate applied.

<sup>1</sup> The original Peak Load Management Program, now a component of the Existing Facilities Program, had a goal of 45 MW of permanent reduction in Con Edison, and has achieved 99% of the goal as of the 1<sup>st</sup> quarter 2010. ECIPP did not have a goal for permanent reduction in Con Edison territory, thus combining the two programs results in the five-year goal not being applicable.

<sup>2</sup> Savings in this row are inclusive of overlap with the R&D DG-CHP Program. This cross-sector overlap is subtracted out at the portfolio level in Table 2-6.

<sup>3</sup> Overlap factors were updated in Q1 2008.

<sup>4</sup> Peak Demand savings goals were not identified for EEPS and enhanced **New York Energy \$mart<sup>SM</sup>** Programs; the goals listed in the table reflect the original SBC goals.

**Table 3-3. C/I Program Cumulative Annual Fuel Savings through June 30, 2010**

Program	Fuel Savings (MMBtu)	
	Savings Achieved through	
	June 30, 2006	June 30, 2010
Existing Facilities Program	3,252	-74,018
Loan Fund and Financing	137,239	598,666
New Construction Program		
New York Energy \$mart <sup>SM</sup>	N/A	8,786
Flex Tech Technical Assistance <sup>1</sup>		
New York Energy \$mart <sup>SM</sup>	3,164,000	3,459,389
EEPS	N/A	0
Industrial and Process Efficiency (EEPS)	N/A	3,193
<b>Overlap Removed</b>	<b>158,200</b>	<b>172,969</b>
<b>Statewide C/I Total</b>	<b>3,146,291</b>	<b>3,823,046</b>

Note: There were no five-year goals for fuel savings.

<sup>1</sup> The methodology to assess impacts focuses on developing samples based on electricity savings, rather than fuel, resulting in a less than optimal sample for fuel-savings projects and fluctuation over time in the calculated impacts. Also, the program recommends on-site generation, which would result in an increase in fuel use, offsetting fuel reductions achieved.

N/A – Not Applicable.

### 3.3 Existing Facilities Program

The Existing Facilities Program<sup>12</sup> (EFP) promotes energy efficiency and demand management by offering incentives for a variety of energy projects, which include: pre-qualified measures, performance-based energy efficiency measures, demand response-load management, interval meters, and combined heat and power. To increase awareness for potential energy cost savings, EFP targets sectors of customers that include commercial and industrial businesses, healthcare facilities, universities and colleges, State and local governments, and mission critical facilities such as data centers and communications facilities.

#### 3.3.1 Progress Toward Goals

With EFP being the product of merging two programs, there are not EFP program goals per se since continued tracking of the original individual programs' goals is no longer possible.<sup>13</sup> Nevertheless, NYSERDA does track EFP program outputs that somewhat parallel the former programs' goal activities: a count of EFP customer projects and the leveraged funds for the entire program are listed in Table 3-4.

<sup>12</sup> EFP is a consolidation of two precursor NYSERDA programs -- the Peak Load Management Program (PLMP) and the Enhanced Commercial and Industrial Performance Program (ECIPP). Building upon the success of these two programs, the July 1, 2008 merger provides a less complicated, more accessible program presentation to potential customers in the marketplace.

<sup>13</sup> Although the goals for PLMP (750 customers receiving assistance) and ECIPP (3,300-3,500 customer projects) are similar, they are not the same metric; consequently the goals cannot be merged. As for the ECIPP leveraged funds goal (\$400-\$450 million), the data merge does not permit continued tracking of this information.

**Table 3-4. Existing Facilities Program – Program Outputs**

Output	Value
Customer projects	8,761
Leveraged Funds (\$ million)	\$766 million

### 3.3.2 Energy, Peak Demand and Fuel Savings

Cumulative annual savings for EFP, as a single program, are a combination of savings from current projects and savings achieved by projects under the collapsed programs.<sup>14</sup> Realization rates and net-to-gross ratios are applied to adjust the program reported savings based on the most recent Measurement and Verification (M&V) and Attribution evaluation studies. As those studies were performed on the component programs and not the EFP as a whole, the realization rates and net-to-gross ratios are not displayed for the program in aggregate. Net savings in the rightmost column are the total savings being claimed by the program after these evaluation activities.

The small amount of negative fuel savings shown are as a result of the Largest Savers impact evaluation completed in 2009. The evaluation was performed on a strata of large saving projects (>1 GWh) across NYSERDA's portfolio and quantified the interactive effects from energy efficiency upgrades. The program does not track fuel impacts and this evaluation was the first attempt to do so.

**Table 3-5. EFP Cumulative Annual Energy and Peak Demand Savings through June 30, 2010**

	Program Reported Savings	Realization Rate	Adjusted Gross Savings	Freerider-ship	Spillover	Net-to-Gross Ratio	Net Savings <sup>1</sup>
<b>New York Energy \$mart<sup>SM</sup> Impacts</b>							
<b>MWh/year</b>	1,479,337	N/A	1,477,997	N/A	N/A	N/A	1,478,697
<b>MW On-Peak</b>	437.2	N/A	383.2	N/A	N/A	N/A	382.0
<b>MW - curtailable</b>	581.8	N/A	507.0	N/A	N/A	N/A	520.7
<b>MMBtu/year</b>	-64,498	N/A	-120,496	N/A	N/A	N/A	-74,018a
<b>EEPS Impacts</b>							
<b>MWh/year</b>	9,485	1.00	9,485	N/A	N/A	.90	8,537
<b>MW On-Peak</b>	2.5	1.00	2.5	N/A	N/A	.90	2.3
<b>MW - curtailable</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A

<sup>14</sup> PLMP and ECIPP. [ECIPP itself is the result of combining two very early NYSERDA programs – Commercial/Industrial Performance Program (CIPP) and Smart Equipment Choices (SEC)].

	Program Reported Savings	Realization Rate	Adjusted Gross Savings	Freerider-ship	Spillover	Net-to-Gross Ratio	Net Savings <sup>1</sup>
<b>Total Impacts</b>							
<b>MWh/year</b>	1,488,822	N/A	1,487,482	N/A	N/A	N/A	1,487,234
<b>MW On-Peak</b>	439.7	N/A	385.7	N/A	N/A	N/A	384.3
<b>MW - curtailable</b>	581.8	N/A	507.0	N/A	N/A	N/A	520.7
<b>MMBtu/year</b>	-64,498	N/A	-120,496	N/A	N/A	N/A	-74,018

<sup>1</sup> Net savings for New York Energy \$mart reflect separate adjustments made to projects included in the 2009 Largest Energy Savers evaluation.

N/A – Not Applicable. The realization rates and net to gross ratios for the legacy programs comprising the Existing Facilities program were developed when the individual programs were operating. Therefore, the factors are applied at the component level and not the level of the umbrella Existing Facilities program.

a Up to this point, EFP has not tracked ancillary fuel savings or use resulting from installation of electric saving measures. The negative fuel savings shown here represent additional fuel use due to the installation of on-site generation at a very small number of projects that were recently evaluation for impacts. In the future, EFP will begin tracking both fuel saving and use more consistently.

### 3.3.3 Follow-Up on Evaluation Recommendations

There are no recent Existing Facilities evaluation recommendations to report. Any new program evaluation recommendations will be included in future quarterly and annual reports, including information on their status and NYSERDA's response to the recommendation.

## 3.4 New York Energy \$mart<sup>SM</sup> Business Partners

### 3.4.1 Progress Toward Goals

Table 3-6 shows the Business Partners Program goal to sign up 1,800 partners over five years. Although almost 800 allies are currently participating in the commercial lighting program element, a total of 210 new commercial lighting partners have signed up since July 1, 2006.

**Table 3-6. New York Energy \$mart<sup>SM</sup> Business Partners Program – Goal and Achievement**

Activity	Program Goals (July 1, 2006 through June 30, 2011)	Achieved July 1, 2006 through June 30, 2010	% of Goal Achieved
Business Partners (signed up)	1,800	292	16%

### 3.4.2 Energy, Peak Demand and Fuel Savings

Table 3-7 shows the cumulative annual energy and peak demand savings from the Business Partners Program. A realization rate and net-to-gross ratio are applied to adjust the program-reported savings, based on the most recent Measurement and Verification and Attribution evaluations. Net savings in the rightmost column are the total savings being claimed by the program after these evaluation activities.

**Table 3-7. New York Energy \$mart<sup>SM</sup> Business Partners Cumulative Annual Energy and Peak Demand Savings (through June 30, 2010)**

	Program-Reported Savings	Realization Rate	Adjusted Gross Savings	Freeridership	Spillover	Net-to-Gross Ratio <sup>1</sup>	Net Savings
<b>Commercial Lighting</b>							
<b>MWh/year</b>	80,558	0.94	75,725	39%	80%	1.10	83,297
<b>MW On-Peak</b>	21.4	1.0	21.4	39%	80%	1.10	23.5
<b>Premium-Efficiency Motors<sup>2</sup></b>							
<b>MWh/year</b>	9,885	1.0	9,885	67%	168%	0.88	8,776
<b>MW On-Peak</b>	1.8	1.0	1.8	67%	113%	0.70	1.3
<b>Commercial HVAC<sup>3</sup></b>							
<b>MWh/Year</b>	6,767	Not Evaluated	6,767	Not Evaluated	Not Evaluated	N/A	6,767
<b>MW On-Peak</b>	2.0	Not Evaluated	2.0	Not Evaluated	Not Evaluated	N/A	2.0
<b>Hospitality Lighting</b>							
<b>MWh/year</b>	8,660	Not Evaluated	8,660	Not Evaluated	Not Evaluated	Not Evaluated	8,660
<b>MW On-Peak</b>	0.9	Not Evaluated	0.9	Not Evaluated	Not Evaluated	Not Evaluated	0.9
<b>Total Business Partners</b>							
<b>MWh/year</b>	105,870	N/A	101,037	N/A	N/A	N/A	107,500
<b>MW On-Peak</b>	26.1	N/A	26.1	N/A	N/A	N/A	27.8

<sup>1</sup> Net-to-Gross Ratio = (1-Freeridership) \* (1+Spillover).

<sup>2</sup> Savings from the prior motor incentive program have been held constant. Savings achieved in 2006 from the new motor management program and the STAC 100 Motors program, in the amount of 296,202 kWh and 48 kW, have been added in the Net Savings column.

<sup>3</sup> Savings for the Commercial HVAC portion of the program have been reduced as of 4<sup>th</sup> Quarter 2006. This approach was taken due to the known short-term nature of savings from advanced diagnostics and commissioning, which were part of the program.

N/A – Not Applicable

### 3.4.1 Business Partners Process Evaluation

This process evaluation focused on the experiences of business partners with the Motors Systems and Lighting program components. The Business Partners Program process evaluation relied on in-depth interviews with seven NYSERDA program and implementation staff, on 41 interviews with active and inactive Motors partners, and on 92 interviews with active and inactive Lighting partners. Research Into Action, Inc. conducted all of the interviews. These interviews were designed to help NYSERDA Business Partners staff understand barriers to participation in the Business Partners components, to gauge



progress toward program implementation, and to understand the value to partners of the program services provided to them. Key findings, conclusions, and recommendations are highlighted below. The full report is available upon request and will be posted on NYSERDA's website soon.

### **Motor Systems Findings**

**Vendor Overview:** Motor vendor business partners range from “mom-and-pop” single locations to large suppliers with multiple locations. Most participating vendors represent larger companies with multiple branches. In-person, program-staff contact is a common source of program awareness among vendors, and a primary way in which staff provides services to them. Vendors view the program as offering a “value added” service for their customers, and see improved customer relationships, rather than immediate motor sales, as both a reason for, and an outcome of, participation. The smallest vendors tend to serve customers with fewer and smaller motors, and typically have no dedicated outside sales staff, so they are less likely than larger vendors to conduct inventories.

**Motor Inventories:** The number of inventories logged by the program reached a high in 2006 and declined thereafter. Thus, the decline in motor inventories cannot be attributed solely to discontinuation of vendor incentives, which occurred in 2004. Local market saturation, inadequate short-term sales to offset the cost of conducting inventories, vendors' ability to perform their own energy-savings calculations, and vendors' use of inventories for purposes beyond those supported by the program also contributed to the decline. Some vendors who conduct inventories without program support indicated their inventories are less rigorous than those conducted through the program.

**Incentives for Higher Efficiency Motors:** With vendor incentives no longer available, some vendors are less engaged with the program, but continue to promote energy-efficient motors and drives, and customer incentives as sales tools. Larger vendors often try to up-sell NEMA Premium motors, while smaller vendors tend to offer NEMA Premium motors only to customers who inquire about such motors. Sales of motors that exceed NEMA Premium efficiency levels face several hurdles. Most critically, there are no recognized standards for the efficiency of such motors.

**Training and Information:** Vendors value program information about the NYSERDA Existing Facilities Program. Inactive vendors desire additional training about customer incentives and Business Partners services offered by NYSERDA.

### **Motor Systems Conclusions and Recommendations**

1. **Motor Inventories - Conclusion:** When inventories are conducted without program involvement, the program loses an opportunity to collect information about motors in use.

**Recommendation:** To encourage vendors' efforts to gather information on motors in their customers' facilities, the program should consider offering vendors incentives for conducting motor inventories (at least for vendors' initial inventories). To complement vendors' activities, the program should also consider offering energy savings estimates for drives. Finally, because most motor inventory opportunities are found among the customers of larger vendors, consider refocusing program staff support on fewer and larger vendors.

2. **Incentives for Higher Efficiency Motors - Conclusion:** NYSERDA staff have considered incentives for sales of motors that are one or two bands higher than NEMA Premium. Without recognized standards for the reliable determination of energy savings from motors with higher efficiency levels, measuring savings to determine appropriate incentive levels would be too onerous for the program to undertake.

**Recommendation:** Further consideration of such incentives should be deferred until standards for higher efficiency motors are promulgated.

3. **Training and Information - Conclusion:** Use of customer incentives as a sales tool would be increased by more knowledge of other programs' incentives and of the processes involved in receiving those incentives. Some vendors do not take full advantage of program services because they are not aware of the full range of services available and of the potential benefits of those services.

**Recommendation:** The program should offer additional training related to program services and to customer incentives from other programs. Inactive vendors in particular should be targeted for such training.

### **Lighting Findings**

**Lighting Partner Overview:** Lighting partners' firms typically have a single office, but firms of active partners generally have more employees than firms of inactive partners. Active Lighting partners participate in the program to gain a competitive advantage and to obtain program incentives. Nonetheless, active partners do not use the Business Partners "brand" as part of their marketing. Inactive partners participate for the incentives and the program's fit with their business model.

**Program Processes:** Lighting partners are satisfied with program processes, and are very satisfied with program support and communications. Lighting partners see no need for more direct communication with NYSERDA staff. Still, communication between the Motors and Lighting components of the program is inconsistent.

**Program Inactivity:** The most common reason for program inactivity is the economic downturn, but "inactive" partners are more active than their categorization indicates. Most had completed Business Partners projects during the previous six months, had projects pending or ready to submit to the program, or expected to complete a project through the program within the next year.

**Training and Information:** While most active partners are satisfied with the program training, about one fifth of them had received no program training or perceived the training as inadequate. Roughly three quarters of the inactive partners had received no training from the program. Active partners most often suggested a need for additional training in new technologies, while inactive partners most often suggested a need for training in program requirements for projects. In addition, most partners are unaware of receiving information about other NYSERDA programs, including other Business Partners components.

### **Lighting Conclusions and Recommendations**

1. **Business Partners Brand - Conclusion:** "Business Partners" has not achieved its potential for recognition as a valued brand among business partners. Evaluators recognize the efforts to solidify the Business Partners brand have been deferred to overarching NYSERDA branding efforts. Therefore, rather than offer a recommendation to address this conclusion, we offer the observation that there is unfulfilled potential in the impact of the Business Partners brand, and in the impact of the program.
2. **Program Processes - Conclusion:** Administratively, especially regarding communications and staff support for Lighting partners, the program is functioning well. Nevertheless, there may be lost opportunities resulting from the absence of formal procedures for referrals between program components. Efforts have been made to achieve such cross pollination, but more can be done.

**Recommendation:** Identify and establish a process for enhanced communications between program components about customer opportunities.

3. **Inactive Partner Designation -Conclusion:** Projects often take more than six months to complete. The six-month criterion for purposes of designating Lighting partners as active is too short to reflect their activities accurately.

**Recommendation:** Consider modifying the criterion for active status to completion of a project within the previous 12 months.

4. **Training and Information - Conclusion:** There are opportunities to provide additional training and information to Lighting partners.

**Recommendation:** The program should conduct additional training sessions with Lighting Partners. Training and information topics, especially for smaller and inactive partners, should repetitively include Business Partner program descriptions, benefits, and procedures, and information about end-use customer incentive programs.

## 3.5 New York Energy \$mart<sup>SM</sup> Loan Fund and Financing Program

### 3.5.1 Progress Toward Goals

Three longer-term non-energy goals have been set for the Loan Fund and Financing Program. These five-year goals and progress are shown in Table 3-8. The program committed its entire 13-year budget of \$43.7 million<sup>15</sup> during the second quarter of 2009. No additional funding is available to allow NYSERDA to reopen the **New York Energy \$mart<sup>SM</sup>** Loan Fund and Financing Program in its present form. However, other activities such as the Green Jobs/Green NY Program are expected to provide financing options to customers wishing to make energy efficiency improvements.

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<sup>15</sup> In early 2009, an additional \$18.3 million in funding was added to the Loan Fund.

**Table 3-8. New York Energy \$mart<sup>SM</sup> Loan Fund and Financing Program – Goals and Achievements for Commercial/Industrial Projects**

Activity	Program Goals (July 1, 2006 through June 30, 2011)	Achieved July 1, 2006 through June 30, 2010	% of Goal Achieved
Customers receiving assistance (closed commercial/industrial loans) <sup>1</sup>	550	292	58%
Participating lenders (signed participation agreements)	75	151	>100%
Leveraged loan amount (for closed commercial/industrial loans) <sup>1</sup>	\$60 million	\$106 million	>100%

<sup>1</sup> Starting in the second quarter of 2009, closed loans only represents loans with certificates of completion. Previously, all loans regardless of submittal of a certificate were counted as complete.

### 3.5.2 Energy, Peak Demand and Fuel Savings

Table 3-9 shows the cumulative annual energy and peak demand savings from the Loan Fund and Financing Program. A realization rate and net-to-gross ratio are applied to adjust the program reported savings based on the most recent Measurement and Verification and Attribution evaluation studies. Net savings in the rightmost column are the total savings being claimed by the program after these evaluation activities.

**Table 3-9. Loan Fund Cumulative Annual Energy and Peak Demand Savings through June 30, 2010<sup>1</sup>**

	Program- Reported Savings	Realiza- tion Rate	Adjusted Gross Savings	Freerider- ship	Spillover	Net-to-Gross Ratio <sup>2</sup>	Net Savings
MWh/year	112,938	0.81a	94,482	27%	20%	0.93	87,868
MW On-Peak	34.6	1.73a	55.9	27%	20%	0.93	52.0
MMBtu	404,860	1.59	643,727	27%	20%	0.93	598,666

<sup>1</sup> Starting in the second quarter of 2009, savings represent only those projects with certificates of completion. Previously, all loans savings regardless of submittal of a certificate were counted as complete.

<sup>2</sup> Net-to-Gross Ratio = 1-Freeridership+Spillover.

a The realization rates calculated only apply to the custom measure kWh and kW savings. Savings arising from pre-qualified measures have a realization rate of 1.0.

## 3.6 Energy Smart Focus Program

### 3.6.1 Progress Toward Goals

Table 3-10 shows the Energy Smart Focus Program five-year goal for participants receiving assistance. A number of programmatic and procedural issues have delayed program ramp-up, and thus the participation level to date is less than initially anticipated.

**Table 3-10. Energy Smart Focus Program – Goal and Achievements**

Activity	Program Goals (July 1, 2006 through June 30, 2011)	Achieved July 1, 2006 through June 30, 2010	% of Goal Achieved
Participants Receiving Assistance <sup>1</sup>	24,000	3,650	17%
Focus Sector Partnerships	N/A	864	N/A

<sup>1</sup> This metric is new and was not part of the original SBC3 Operating Plan goals.

N/A – Not Applicable

Table 3-11 shows the number of new projects brought into other NYSERDA programs by the Focus Program during the second quarter and to date.

**Table 3-11. Projects Brought into Other NYSERDA Programs<sup>1</sup>**

Focus Sector	Number of Projects this Quarter	Total Projects to Date
Colleges and Universities	12	31
Commercial Real Estate	40	172
Healthcare	6	30
Hospitality	11	158
Institutions	9	42
Water and Wastewater	16	32
<b>Total</b>	<b>94</b>	<b>465</b>

<sup>1</sup>Programs include Existing Facilities, Flex Tech, and New Construction.

### **3.6.2 Energy, Peak Demand and Fuel Savings**

Energy Smart Focus is primarily a sector-based energy information and services program. Services provided vary by sector, but ultimately many customers served by Energy Smart Focus will elect to participate in other **New York Energy \$mart<sup>SM</sup>** programs. Energy and demand savings that may be attributable to the Focus Program are tracked and reported under the other **New York Energy \$mart<sup>SM</sup>** programs.

### **3.6.3 Sector Highlights**

As a sector-based energy information and services program, many aspects of the Focus Program are difficult to quantify and are instead presented as sector highlights. Sector highlights indicate success in penetrating markets and influencing the energy efficiency of individual sectors.

#### **Focus on Colleges and Universities (C&U)**

The Focus on Colleges & Universities program has been expanding outreach efforts to identify energy efficiency projects. For example, during this quarter, 15 one-on-one campus meetings were completed and presentations were made to three C&U organizations and their members.

### **Focus on Commercial Real Estate (CRE)**

During the second quarter of 2010, NYSERDA and its implementation contractor continued to provide Account Management and strengthen industry partnerships, while developing a new scope of work for the contract renewal. The following are highlights of key activities performed and impacts achieved in Q2 2010:

- Continued to build relationships with industry organizations and present at events, including: the Urban Green Council (UGC), the New York City Mayor's Office, the American Society of Heating, Refrigerating, and Air-conditioning Engineers (ASHRAE), the City University of New York Building Performance Lab (CUNY BPL), the Practicing Law Institute (PLI), Cleantech Corridor, the Manhattan Energy Smart Coordinators, Solar One, and the Central New York Regional Planning and Development Board;
- Continued planning, development, and support for CRE tools such as developing content for marketing materials supporting the CRE sector and developing a strategy for tenant outreach;
- Continued recruiting participants, gaining market exposure and servicing portfolio clients;
- Presented at eight conferences and industry events, including presentations at the Alliance for Downtown New York, New York Building Congress, New York Academy of Sciences, and Solar One's panel, "Green Within Reach";
- Account management and outreach efforts served 19 portfolios, containing 311 buildings and over 165 million square feet; and
- Outreach efforts have successfully solicited 40 new NYSERDA projects in 2010, representing 34 buildings and impacting 22 million square feet.

### **Focus on Healthcare**

During the second quarter of 2010, the focus on Healthcare contractor, Luthin Associates, assisted in outreach and marketing exercises with National Grid. They also worked with the NYSERDA marketing and operations staff in developing a scope of work and marketing campaign with National Grid. This culminated in a successful kick off of the program at press events in Brooklyn and Syracuse.

Focus on Healthcare has developed a list of the 184 largest hospitals by number of beds. Work is in progress with 45 facilities, representing 36% of the beds on the top hospital list. During the first half of 2010, Luthin Associates interacted with 72 organizations including 65 hospitals or nursing homes and seven health organizations or contractors.

### **Focus on Industry**

The Focus on Industry and Process Program was initiated in October 2009. The program focuses on outreach efforts to expand awareness of the benefits of energy efficiency and NYSERDA programs at manufacturing and data center sites. Activities and actions completed by the Focus Contractors for the second quarter 2010 are summarized below.

- Completed a review of the RTDC (Regional Technology development Corporation) Tier I and II customer database;

- Developed strategies to target specific sectors and strategic partnerships in those sectors, and reviewed process energy efficiency opportunities and best practices for industrial sectors such as the food industry, glass product manufacturing, and chemical manufacturing industry; and
- Presented at several industry meetings/conferences including: Industrial Process Efficiency Stakeholders, DOE (Department of Energy)/NYSERDA Upstate New York Outreach Meeting at MACNY (Manufacturers Association of Central New York), Hudson Valley Economic Development Center Directors meeting, Energy Panel for Queens Manufacturing, NYS Economic Development Corporation Annual Conference, Rockland Economic Development Corporation, Green Manufacturing Exposition, and the Green Building NY Conference.

### **Focus on K-12 and State Institutions**

In the second quarter of 2010, the Focus on K-12 Schools continued its outreach, training, and consultation to New York's K-12 public and private schools. One of the most significant accomplishments during this quarter was the completion three Strategic Weapons and Training (SWAT) visits, to two districts and one Board of Cooperative Educational Services (BOCES). SWAT visits include engineers who conduct a one-day site visit to visually review and inspect the facilities, of eligible K-12 Schools.

The Focus on K-12 Schools program continued to expand its benchmarking effort and added an additional 14 schools in three districts. This quarter's benchmarking effort has assisted five districts in submitting applications for 19 school buildings to receive the ENERGY STAR® Label for Buildings.

Since inception, 986 schools across 221 districts have benchmarked through the Focus Program, 177 Schools have received building labels for their excellence in energy efficiency, and 19 districts have been awarded the ENERGY STAR® leader award.

Also during the second quarter of 2010, Focus on State Institutions continued the development of the report for Executive Orders No. 111 and 142. Another significant accomplishment during this quarter was the inventory of NYSERDA's CO<sub>2</sub> and CO<sub>2</sub>E emissions for the 2009 Climate Registry reporting. Additionally, NYSERDA staff benchmarked the SUNY administration building in Albany and trained key staff on the use of the Environmental Protection Agency Portfolio Manager System. NYSERDA also continued to work with the New York State Division of Military and Naval Affairs in developing an energy consumption reduction tool. This tool will target over 100 facilities and an estimated 300 personnel.

### **Focus on Water and Wastewater**

The Focus on Water and Wastewater program has been targeting both utility staff and elected officials to expand awareness of the benefits of energy efficiency and NYSERDA programs at Water and Wastewater Treatment Plants. The following items represent a sampling of activities completed in the 2<sup>nd</sup> quarter of 2010:

- Entered into 27 partnerships with members of the Infrastructure Alliance (including outside organizations, associations, agencies, etc.);
- Trained 50 elected officials at local government conferences and panels;
- Conducted site visits at seven facilities;
- Finalized training materials and made them available for downloading on the NYSERDA website including: the Water and Wastewater Best Practices Handbook, Ten Steps to Energy Efficiency for Water and Wastewater Treatment Facilities, payback analysis tool, and a water and wastewater benchmarking and checklist tool; and
- Distributed more than 100 Best Practices handbooks.

### 3.7 New Construction Program

The New Construction Program continues to monitor three key non-energy metrics to assess their growth proxies for program expansion. Table 3-12 shows these metrics and their current status. Overall, these measures continue to show progress over time, corresponding with program growth.

**Table 3-12. New Construction Program – Key Activities**

Activity	Achieved through June 30, 2010
Customers receiving assistance (completed projects)	492
Construction market affected (square feet)	54.5 million
Participating A&E firms (completed projects)	787

#### 3.7.1 Energy, Peak Demand and Fuel Savings

Table 3-13 shows the cumulative annual energy and peak demand savings from the New Construction Program including both **New York Energy \$mart<sup>SM</sup>** and EEPS funding sources. A realization rate and net-to-gross ratio are applied to adjust the program reported savings, based on the most recent Measurement and Verification and Attribution evaluation studies. Net savings in the rightmost column are the total savings being claimed by the program after these evaluation activities.

**Table 3-13. New Construction Program Cumulative Annual Energy and Peak Demand Savings through June 30, 2010**

	Program-Reported Savings	Realization-Rate	Adjusted Gross Savings	Freerider-ship	Spillover	Net-to-Gross Ratio <sup>1</sup>	Net Savings <sup>2</sup>
<b>New York Energy \$mart Impacts</b>							
<b>MWh/year</b>	316,590	1.03	322,141	39%	89%	1.22	387,709
<b>MW On-Peak</b>	81.4	0.97	78.7	39%	89%	1.22	94.6
<b>MMBtu/yr</b>	39,700	0.98	39,061	N/A	N/A	N/A	8,786
<b>EEPS Impacts</b>							
<b>MWh/year</b>	2,278	1.03	2,346	39%	89%	1.22	2,863
<b>MW On-Peak</b>	0.29	0.97	0.29	39%	89%	1.22	0.34
<b>MMBtu/yr</b>	--	1.0	--	N/A	N/A	0.9	--
<b>Total SBC Impacts</b>							
<b>MWh/year</b>	318,868	N/A	324,487	N/A	N/A	N/A	390,572
<b>MW On-Peak</b>	81.7	N/A	79.0	N/A	N/A	N/A	94.9
<b>MMBtu/yr</b>	39,700	N/A	39,061	N/A	N/A	N/A	8,786

<sup>1</sup> Net-to-Gross Ratio = 1-Freeridership+Spillover (a weighted average of the NTG ratios estimated in the previous MCAC analysis and this current analysis is shown here).

<sup>2</sup> Net savings reflect separate adjustments made to projects included in the 2009 Largest Energy Savers evaluation.

N/A – Not Applicable



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### 3.7.2 Follow-Up on Evaluation Recommendations

Table 3-14 presents a summary of NCP recommendations resulting from program evaluations. This table also provides the status of each recommendation (*i.e.*, if a recommendation has already been adopted, if it will be adopted in the future or if it will not be adopted) as well as a response from program staff to each recommendation. Per DPS quarterly and annual reporting guidelines, these program recommendations will be revisited with program staff and updated, as applicable, on a quarterly basis.

**Table 3-14. NCP Evaluation Recommendations and Status**

Source of Recommendation (Contractor, Report Title, Date)	Recommendation	Status	Program Implementer Response to Recommendation and Adoption Decision Rationale
Summit Blue MCA study 2008	To increase market penetration in specific building sectors, NCP staff could target marketing and target outreach efforts to design firms most active in those sectors. A variety of methods and data sources could be used to develop targeted marketing strategies. NCP staff and OPCS could also use networking opportunities during ongoing interactions with market actor groups to gather program intelligence.	Adopted	<p>NCP staff has worked closely with the Marketing Group to develop a program marketing strategy. NCP staff participated in the recent review of the NCP marketing plan with Marketing staff and DPS. DPS approved proceeding with the marketing plan, which includes a variety of strategies to provide outreach and education to market players. Marketing survey research to uncover motivations/barriers among end user groups is now underway. Other planned marketing efforts include training sessions, strategic alliances and partnerships with organizations/associations, and targeted and systematic efforts to reach and resonate with these groups.</p> <p>NCP is currently engaged in a proactive marketing and outreach effort using NCP Outreach Project Consultants (OPCs) and NYSERDA events and marketing staff. Work includes identifying and participating in industry-specific trade shows, conferences, seminars and meetings, and making presentations to multiple architectural and engineering firms and local organizations. Initial results are encouraging, and NCP has experienced an increase in application activity. NCP participated in a joint NYSERDA/National Grid conference in spring 2010. NCP has provided funding for several event sponsorships and conference exhibit booths, and Program Staff have worked with NYSERDA Marketing to redesign the NCP booth backdrop. Under a recently awarded contract, NCP Technical Assistant firms will be given the opportunity to bring new projects into the New Construction Program. This is also expected to increase program applications.</p>

### 3.8 FlexTech Technical Assistance Program

FlexTech Technical Assistance continues to monitor a key non-energy metric to assess its growth as a proxy for program expansion. Table 3-15 shows this metric and its current status.

**Table 3-15. FlexTech Technical Assistance Program – Goal and Achievement**

Activity	Achieved July 1, 2006 through June 30, 2010
Customers receiving assistance (approved proposals)	3,314

#### 3.8.1 Energy, Peak Demand and Fuel Savings

Table 3-16 shows the cumulative annual energy and peak demand savings from the FlexTech Technical Assistance Program. As the EEPs funded FlexTech Program begins to claim acquired savings, rows will be added to reflect progress. Due to the unique nature of this audit program, the adjustments resulting from the Measurement and Verification evaluation study are applied within the program-reported savings. A net-to-gross ratio is applied to adjust the program-reported savings based on the most recent Attribution evaluation study. Net savings in the rightmost column are the total savings being claimed by the program after these evaluation activities.

**Table 3-16. FlexTech Technical Assistance Program Cumulative Annual Energy and Peak Demand Savings through June 30, 2010**

	Program-Reported Savings	Realization-Rate	Adjusted Gross Savings	Freerider-ship	Spillover	Net-to-Gross Ratio <sup>1</sup>	Net Savings <sup>2</sup>
<b>New York Energy \$mart Impacts</b>							
<b>MWh/year</b>	1,040,506	1.0	1,032,126	25%	48%	1.14	1,141,272
<b>MW On-Peak</b>	189	1.0	188.1	25%	48%	1.14	208.7
<b>MW Enabled</b>	11	N/A	11	25%	48%	1.14	12.5
<b>MMBtu/yr</b>	2,937,516	1.0	2,915,077	25%	48%	1.14	3,459,389

<sup>1</sup> Net-to-Gross Ratio = 1-Freeridership+Spillover (a weighted average of the NTG ratios estimated in the previous MCAC analysis and this current analysis is shown here).

<sup>2</sup> Net savings for **New York Energy \$mart** reflect separate adjustments made to projects included in the 2009 Largest Energy Savers evaluation.

N/A – Not Applicable

#### 3.8.2 Follow-Up on Evaluation Recommendations

There are no recent FlexTech evaluation recommendations to report on. Any new program evaluation recommendations will be included in future quarterly and annual reports, including information on their status and NYSERDA's response to the recommendation.

### 3.9 Industrial and Process Efficiency Program

The Industrial and Process Efficiency Program, as approved in the revised SBC Operating Plan<sup>16</sup>, is one of the five Fast Track programs originally presented in the June 23<sup>rd</sup>, 2008 DPS Order.<sup>17</sup> Details on this EEPS-funded program are included in Appendix A. Table 3-17 shows cumulative annual energy and peak demand savings through June 30, 2010.

**Table 3-17. Industrial and Process Efficiency Program Cumulative Annual Energy and Peak Demand Savings through June 30, 2010**

	Program-Reported Savings	Realization Rate	Adjusted Gross Savings	Freerider-ship	Spillover	Net-to-Gross Ratio <sup>1</sup>	Net Savings
<b>EEPS Impacts</b>							
<b>MWh/yr<sup>2</sup></b>	26,588	1.0	26,588	N/A	N/A	0.9	23,929
<b>MW On-Peak<sup>2</sup></b>	4.0	1.0	4.0	N/A	N/A	0.9	3.6
<b>MMBtu/yr</b>	3,548	1.0	3,548	N/A	N/A	0.9	3,193

<sup>1</sup> DPS directed NTG ratio of 0.9 until evaluation of program is done.

<sup>2</sup>Repeated savings do not align precisely with scorecard values presented in Appendix A due to the timing of data pulls and revisions to project tracking data. Closer alignment is expected in future quarters.

N/A – Not Applicable

<sup>16</sup> System Benefits Charge, Supplemental Revision for New York Energy Smart<sup>SM</sup> Programs (2008 – 2011). As amended August 22, 2008 and revised March 12, 2009.

<sup>17</sup> Case 07-M-0548, Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard, *Order Establishing Energy Efficiency Portfolio Standard and Approving Programs*, issued and effective September 23, 2008.



# 4

## ***Residential and Low-Income Programs***

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### **4.1 Residential and Low-Income Evaluation Activities**

#### ***4.1.1 Completed Evaluation Activities***

During the second quarter of 2010, the following evaluation projects were completed on the Residential and Low-Income programs:

- Logic model on the New York ENERGY STAR Homes Program (See Appendix B)
- Process evaluation on the EmPower Program (See Section 4.8)

#### ***4.1.2 Evaluation Activities in Progress and Planned***

In the coming quarters, NYSERDA expects to complete the following evaluation projects:

- Logic models on the Multifamily Performance and Home Performance with ENERGY STAR programs
- Market characterization and assessment evaluation on the **New York Energy \$mart<sup>SM</sup>** Products Program
- Impact studies on the ENERGY STAR Homes, Home Performance with ENERGY STAR and EmPower programs
- Phase Two of the CFL Expansion impact and market evaluation

### **4.2 Summary of Residential and Low-Income Evaluation Results**

#### ***4.2.1 Progress Toward Non-Energy Goals***

- As part of the SBC Program, across the Residential and Low-Income programs, 28 additional logic-model driven goals were set for other key metrics besides energy savings, such as the number of customers receiving assistance, funds leveraged, allies participating, and outreach activities completed. These goals are tracked for the Single Family Home Performance, Multifamily Building, Market and Community Support, Communities and Education, EmPower New York<sup>SM</sup> and Buying Strategies and Energy Awareness programs. The programs are making

progress toward achieving these goals. Specifically, 80% through the five-year measurement period, 14 of the 28 goals have been surpassed, two of the 28 goals have reached 80% or greater progress and progress on the remaining 12 goals has not yet reached 80%. Please refer to the individual program summaries within Section 4 for details on program progress toward achieving these goals.

#### **4.2.2 Energy, Peak Demand and Fuel Savings**

Table 4-1 shows Residential and Low-Income program electric savings through June 30, 2010 and progress toward goals. Table 4-2 and Table 4-3 show peak demand reductions and fuel savings, respectively.

**Table 4-1. Residential and Low-Income Program Cumulative Annual Electricity Savings through June 30, 2010 and Progress toward Goals**

Program	Energy Savings (GWh)				
	Savings Achieved through		July 1, 2006 through June 30, 2010	Goal <sup>3</sup>	Progress Toward Goal (% achieved)
	June 30, 2006	June 30, 2010			
Single Family Home Performance Program: Existing Homes <sup>1</sup>	13.5	25.2	11.7	27.4	43%
Single Family Home Performance Program: New Homes	7.3	30.9	23.6	18.7	126%
Multifamily Performance Program: Existing Buildings <sup>2</sup>					
<b>New York Energy \$mart<sup>SM</sup></b>	31.0	104.0	73.0	361.3	20%
EEPS <sup>4</sup>	N/A	0.5	0.5	16.1	3%
Multifamily Performance Program: New Buildings	0.0	2.2	2.2	24	9%
Market and Community Support Program <sup>5</sup>	539.1a	657.6	118.6	220	54%
CFL Expansion Program (EEPS) <sup>6</sup>	N/A	303.7	303.7	1,083.4	28%
EmPower New York <sup>7,8</sup>					
<b>New York Energy \$mart<sup>SM</sup></b>	20.1	51.1	31.0	41.7	74%
EEPS	N/A	7.5	7.5	29.4	25%
<b>Statewide Residential &amp; Low-Income Total</b>	<b>610.9</b>	<b>1,182.8</b>	<b>571.9</b>	<b>N/A</b>	<b>N/A</b>

a This baseline savings figure does not match the 2<sup>nd</sup> quarter 2006 published value. The impacts for **New York Energy \$mart<sup>SM</sup>** are derived annually from market data, and the 2<sup>nd</sup> quarter savings value was estimated retrospectively to provide a more accurate baseline for measuring progress.

<sup>1</sup>Savings for the low-income Assisted Home Performance Program (12.2 GWh) are included in this row.

<sup>2</sup>Savings for the low-income Assisted Multifamily Program (55.6 GWh) are included in this row; the remainder is savings from the closed Residential Comprehensive Energy and Direct Install programs and the new Multifamily Performance Program.

<sup>3</sup>**New York Energy \$mart<sup>SM</sup>** Program goals are in effect through June 30, 2011. The savings goals for the EEPS-funded programs vary by program. For the EEPS-funded EmPower Program, the savings goal is through December 31, 2011; for the EEPS-funded CFL Expansion Program, the savings goal is through December 31, 2012.

<sup>4</sup>Values in this row include only the EEPS Low-Income Multifamily Performance Program.

<sup>5</sup>Savings for the **New York Energy \$mart<sup>SM</sup>** Products Program are estimated based on market data, survey research, and deemed savings values. Savings for this program were last fully captured in 2006. An update, completed and applied in Quarter 1 2009, added electricity, demand, and fuel savings for 2007 appliances only. An update to this analysis is planned in 2010 and will update these values.

<sup>6</sup>Savings for the CFL Expansion Program incorporate a net-to-gross estimate based on baseline conditions. As NYSERDA's current CFL Expansion Program evaluation is completed, this net-to-gross estimate may be updated.

<sup>7</sup>The EmPower GWh savings goal has been reduced to reflect a shift of resources to projects achieving MMBtu savings as outlined in the SBC III operating plan submitted for approval on March 5, 2010.

<sup>8</sup>The **New York Energy \$mart<sup>SM</sup>** goals for EmPower were calculated by adding the net SBC3 achievements through Q3 2008 (published in NYSERDA's quarterly report for this time period) to the new SBC goal from NYSERDA's March 12, 2009 Operating Plan.

N/A – Not Applicable

**Table 4-2. Residential and Low-Income Program Cumulative Peak Demand Savings through June 30, 2010**

Program	Demand Savings (MW)	
	Savings Achieved through	
	June 30, 2006	June 30, 2010a
Single Family Home Performance Program: Existing Homes <sup>1</sup>	2.0	3.0
Single Family Home Performance Program: New Homes	0.9	14.2
Multifamily Performance Program: Existing Buildings <sup>2</sup>		
New York Energy \$mart <sup>SM</sup>	3.9	11.5
EEPS <sup>3</sup>	N/A	0.1
Multifamily Performance Program: New Buildings	0.0	0.8
Market and Community Support Program	104.3	136.1
CFL Expansion (EEPS) <sup>4</sup>	N/A	41.6
EmPower New York		
New York Energy \$mart <sup>SM</sup>	2.5	8.2
EEPS	N/A	0.8
<b>Statewide Residential &amp; Low-Income Total</b>	<b>113.7</b>	<b>216.4</b>

Note: No peak demand savings goals were set for residential and low-income EEPS and New York Energy \$mart<sup>SM</sup> programs. a Savings for the New York Energy \$mart<sup>SM</sup> Products Program are estimated based on market data, survey research, and deemed savings values. Savings for this program were last fully captured in 2006. An update, completed and applied in Quarter 1 2009, added electricity, demand, and fuel savings for 2007 appliances only. An update to this analysis is planned in 2010 and will update these values.

<sup>1</sup>Includes 1.0 MW from the low-income Assisted Home Performance Program.

<sup>2</sup>Savings for the low-income Assisted Multifamily Program are included in this row. They represent 6.6 MW of these savings.

<sup>3</sup>Values in this row include only the EEPS Low-Income Multifamily Performance Program.

<sup>4</sup>Savings for the CFL Expansion Program incorporate a net-to-gross estimate based on baseline conditions. As NYSERDA's current CFL Expansion Program evaluation is completed, this net-to-gross estimate may be updated.

N/A – Not Applicable



**Table 4-3. Residential and Low-Income Program Cumulative Annual Fuel Savings through June 30, 2010 and Progress Toward Goals**

Program	Fuel Savings (MMBtu)				
	Savings Achieved through		July 1, 2006 through June 30, 2010	Goal	Progress Toward Five-Year Goal (% achieved)
	June 30, 2006	June 30, 2010			
Single Family Home Performance Program: Existing Homes <sup>1</sup>					
<b>New York Energy \$mart<sup>SM</sup></b>	454,958a	1,130,842	675,884	1,199,000	56%
EEPS	N/A	10,367	10,367	448,265	2%
Single Family Home Performance Program: New Homes					
<b>New York Energy \$mart<sup>SM</sup></b>	376,103b	843,687	467,584	518,500	90%
EEPS	N/A	18,144	18,144	428,767	4%
Multifamily Performance Program: Existing Buildings <sup>2</sup>					
<b>New York Energy \$mart<sup>SM</sup></b>	43,932	871,244	827,312	6,014,500	14%
EEPS <sup>3</sup>	N/A	7,518	7,518	542,176	1%
Multifamily Performance Program: New Buildings	0.0	28,877	28,877	649,000	4%
Market and Community Support Program <sup>4</sup>	241,998	296,607d	54,609	N/A	N/A
EmPower New York <sup>5,6</sup>					
<b>New York Energy \$mart<sup>SM</sup></b>	38,151	183,099	144,948	108,500	134%
EEPS	N/A	445	445	84,584	1%
<b>Statewide Residential &amp; Low-Income Total</b>	<b>1,155,142</b>	<b>3,390,829</b>	<b>2,235,687</b>	<b>N/A</b>	<b>N/A</b>

<sup>1</sup>Energy savings for the low-income Assisted Home Performance Program are included in this row. They represent 507,062 MMBtu of these savings.

<sup>2</sup>Energy savings for the low-income Assisted Multifamily Program are included in this row. They represent 378,781 MMBtu of these savings.

<sup>3</sup>Values in this row include both the EEPS Low-Income and Market Rate Multifamily Performance Programs.

<sup>4</sup>The value shown for savings through June 30, 2006 does not match earlier published values, as an error in the tracking spreadsheet was found and repaired.

<sup>5</sup>The MMBtu savings for EmPower is reduced compared to past quarters, as savings had included some non-SBC sources, which are removed in this quarter. This change also impacted the savings through June 30, 2006, so the value shown here will not match earlier published values.

<sup>6</sup>The EmPower MMBtu savings goal has been increased to reflect a shift of resource to projects achieving MMBtu savings as outlined in the SBC III operating plan submitted for approval March 5, 2010.

a This value does not match an earlier published value due to changes made to the program tracking database in response to evaluation completed by the M&V contractor.

b This value does not match earlier published values as the realization rate for MMBtu was reassessed during this period to a lower level and applied retroactively in order to accurately reflect progress made during the year.

c This goal includes only the EEPS Low-Income Assisted Multifamily Program.

d Savings for the **New York Energy \$mart<sup>SM</sup>** Products Program are estimated based on market data, survey research, and deemed savings values. Savings for this program were last fully captured in 2006. An update, completed and applied in Quarter 1 2009, added electricity, demand, and fuel savings for 2007 appliances only. An update to this analysis is planned in 2010 and will update these values.

N/A – Not Applicable

## 4.3 Single Family Home Performance Program

### 4.3.1 Progress Toward Goals

Table 4-4 shows that the Single Family Home Performance Program continues to perform well relative to its long term production goals for new and existing non-low-income homes. Progress continues to be slower than expected on new and existing low-income homes, however, due to challenges in influencing how low-income housing is constructed and the overall downturn in the housing market.

**Table 4-4. Single Family Home Performance Program – Goals and Achievements**

Activity	Program Goals (July 1, 2006 through June 30, 2011)	Achieved July 1, 2006 through June 30, 2010	% of Goal Achieved
<b>New York ENERGY STAR Homes Initiative</b>			
New ENERGY STAR Homes built (market rate only)	11,184	8,420	75%
New low-income ENERGY STAR Homes built	4,075	206	5%
<b>Home Performance with ENERGY STAR Initiative</b>			
Existing homes served (receiving treatment) (market rate only)	16,582	12,872	77%
Existing low-income homes served (receiving treatment)	10,851	5,134	47%

### 4.3.2 Energy, Peak Demand and Fuel Savings

Table 4-5 shows the cumulative annual energy and peak demand savings from the Single Family Home Performance Program. A realization rate and net-to-gross ratio is applied to adjust the program-reported savings based on the most recent Measurement and Verification and Attribution evaluation studies. Net savings in the rightmost column are the total savings being claimed by the program after these evaluation activities.

**Table 4-5. New York Energy \$mart<sup>SM</sup> Single Family Home Performance Program  
Cumulative Annual Energy and Peak Demand Savings through June 30,  
2010**

	Program-Reported Savings	Realization Rate	Adjusted Gross Savings	Freeridership	Spillover	Net-to-Gross Ratio <sup>1</sup>	Net Savings
<b>New York ENERGY STAR Homes Initiative</b>							
<b>MWh/year</b>	24,017	1.10	26,419	28%	47.6%	1.17	30,910
<b>MW On-Peak</b>	5.2	2.32	12.1	28%	47.6%	1.17	14.2
<b>MMBtu</b>	974,459	0.74	721,100	28%	47.6%	1.17	843,687
<b>Home Performance with ENERGY STAR<sup>2</sup></b>							
<b>MWh/year</b>	22,544	1.0	22,544	26%	41%	1.12	25,249
<b>MW On-Peak</b>	2.6	1.04	2.7	26%	41%	1.12	3.0
<b>MMBtu</b>	1,174,047	0.86	1,009,680	26%	41%	1.12	1,130,842
<b>Single Family Home Performance Program – Total</b>							
<b>MWh/year</b>	46,561	N/A	48,963	N/A	N/A	N/A	56,160
<b>MW On-Peak</b>	7.9	N/A	14.9	N/A	N/A	N/A	17.2
<b>MMBtu</b>	2,148,506	N/A	1,730,780	N/A	N/A	N/A	1,974,529

<sup>1</sup>Net-to-Gross Ratio = 1-Freeridership+Spillover (a weighted average of the NTG ratios, estimated in the previous MCAC analysis and this current analysis, is shown here).

<sup>2</sup>Savings for the low-income Assisted Home Performance Program are included in these figures. They represent approximately 12,246 MWh, 1.0 MW, and 507,062 MMBtu of these savings.

N/A – Not Applicable

**Table 4-6. EEPS Single Family Home Performance Program Cumulative Annual Energy and Peak Demand Savings through June 30, 2010**

	Program-Reported Savings	Realization Rate	Adjusted Gross Savings	Freeridership	Spillover	Net-to-Gross Ratio <sup>1</sup>	Net Savings
<b>EEPS New York ENERGY STAR Homes Initiative<sup>3</sup></b>							
<b>MMBtu</b>	20,160	1.0	20,160	N/A	N/A	0.9	18,144
<b>EEPS Home Performance with ENERGY STAR<sup>2,3</sup></b>							
<b>MMBtu</b>	11,519	1.0	11,519	N/A	N/A	0.9	10,367
<b>EEPS Impacts<sup>3</sup></b>							
<b>MMBtu</b>	31,679	1.0	31,679	N/A	N/A	0.9	28,511

<sup>1</sup>DPS directed NTG ratio of 0.9 until evaluation of program is done.

<sup>2</sup>Savings for the EEPS low-income Assisted Home Performance Program are included in these figures. They represent approximately 773 MMBtu.

<sup>3</sup>The difference between the program reported savings and the acquired savings scorecard (Appendix A) is the result of project completion versus project payment dates.

N/A – Not Applicable

### 4.3.3 Follow-Up on Evaluation Recommendations

#### **Home Performance with ENERGY STAR**

Table 4-7 presents a summary of Home Performance with ENERGY STAR recommendations resulting from program evaluations. This table also provides the status of each recommendation (*i.e.*, if a recommendation has already been adopted, if it will be adopted in the future, or if it will not be adopted) as well as a response from program staff to each recommendation. Per DPS quarterly and annual reporting guidelines, these program recommendations will be revisited with program staff and updated, as applicable, on a quarterly basis.

**Table 4-7. Home Performance with ENERGY STAR Evaluation Recommendations and Status**

Source of Recommendation (Contractor, Report Title, Date)	Recommendation	Status (Adopted, Plan to Adopt, or Not Adopting)	Program Implementer Response to Recommendation and Adoption Decision Rationale
Nexant, HPw/ES M&V, June 2007	The program should require contractors to obtain baseline billing data and enter annual baseline consumption into HomeCheck and TREAT. Both software modeling packages have the ability to use billing data as an input when calculating energy savings. At least one full year of data would be preferable, but even partial year data would be helpful in calculating and verifying modeled savings.	Not Adopted	Customer billing release forms have been collected for every completed project since May 2005 and NYSERDA is in the process of obtaining utility billing data.  Contractors are also trained on inputting the baseline data into the software; however, entering this data has not become a program requirement given the possible time burden it could have on participating contractors.
Nexant, HPw/ES M&V, June 2007	The program database should maintain the utility account information for all homes in the program. Information for both electric and fossil fuel accounts are unique identifiers for a home. Additionally, for multi-family units, all utility account information should be included so that homes with multiple meters can be easily identified.	Plan to Adopt	Staff acknowledges the issue on the multifamily side and is looking into this recommendation. Note the volume of 2-4 family homes in Home Performance is very small.
Summit Blue Consulting, HPwES MCA, February 2009	Consider development of targeted marketing materials for former and nonparticipating contractors focused on the value of BPI accreditation. It is interesting to note that 33% of former and nonparticipating contractors responded that BPI is not a selling point (suggesting a potential target market for increased outreach and BPI benefits education).	Plan to Adopt	Program staff agrees with these recommendations and has shared them with the residential marketing team and BPI for possible implementation.

Source of Recommendation (Contractor, Report Title, Date)	Recommendation	Status (Adopted, Plan to Adopt, or Not Adopting)	Program Implementer Response to Recommendation and Adoption Decision Rationale
Summit Blue Consulting, HPwES MCA, February 2009	Consider promoting more opportunities for specialty contractor training and networking. Although supply of skilled contractors currently appears to be meeting demand, responses from contractors interviewed suggest a need for increased outreach, recruitment and training of specialty contractors, and reinforces the need for more networking within and across participating and nonparticipating contractor groups.	Plan to Adopt	Program staff agrees with these recommendations and has shared them with the residential marketing team and BPI for possible implementation.
Summit Blue Consulting, HPwES MCA, February 2009	Recognize that homeowners are installing energy efficiency measures outside of the program. Reasons for homeowners' measure installation actions taken outside of the program were not directly assessed within this study, but could provide valuable insights for future program design and effectiveness improvement purposes. As part of such additional assessment, how these installation actions may have varied if the customer had not received a CHA would also be important to capture.	Plan to Adopt	NYSERDA will attempt to investigate this issue in future program evaluations.
Summit Blue Consulting, HPwES MCA, February 2009	Consider development of targeted marketing materials for homeowners focused on various elements of "being green". Additional information from homeowners could be helpful in developing targeted marketing materials including: if they perceive the HPwES Program as being a "green" program, and what specific components within the program they consider "green".	Plan to Adopt	<p>Program staff agrees with these recommendations and has shared them with the residential marketing team and BPI for possible implementation.</p> <p>Recent information pieces and Programs have been aimed at educating customers, and include the Green Jobs Green NY Program, the Green Residential Building Program and the Greenest New Yorker Contest.</p> <p>Information on green technologies has also been added to the consumer website:  <a href="http://www.getenergysmart.org">www.getenergysmart.org</a></p>

**New York ENERGY STAR Homes**

Table 4-8 presents a summary of New York ENERGY STAR Homes recommendations resulting from program evaluations. This table also provides the status of each recommendation (*i.e.*, if a recommendation has already been adopted, if it will be adopted in the future or if it will not be adopted), as well as a response from program staff to each recommendation. Per DPS quarterly and annual reporting guidelines, these program recommendations will be revisited with program staff and updated, as applicable, on a quarterly basis.

**Table 4-8. New York ENERGY STAR Homes Evaluation Recommendations and Status**

<b>Source of Recommendation</b> (Contractor, Report Title, Date)	<b>Recommendation</b>	<b>Status</b> (Adopted, Plan to Adopt, or Not Adopting)	<b>Program Implementer Response to Recommendation and Adoption Decision Rationale</b>
Nexant, NYESLH M&V, June 2007	Data from REM/Rate files should be included in CSG's database for all homes, including detailed equipment and appliance information and square footage of each home. CSG indicated that this recommendation will be incorporated into a future version of the program database. In addition, NYSERDA should periodically conduct quality control checks to verify that the information in the database is correct.	Plan to Adopt	NYESH Program staff have been assessing ways to facilitate the export of data from the REM/Rate software in a meaningful way into the implementation database. Some success has been made in the LIPA ENERGY STAR Homes Program to accomplish this, and NYSERDA staff has been using its experience to accomplish the task.

## **4.4 Multifamily Building Programs**

The Multifamily Building Programs include the closed Low-Income Direct Installation and Comprehensive Energy Management (CEM) programs, the currently operating Assisted Multifamily Program (AMP), and the new Multifamily Performance Program (MPP).

### **4.4.1 Progress Toward Goals**

As shown in Table 4-9, several long-term non-energy goals have been set for the new Multifamily Performance Program. Achievements include ongoing activities completed during this time period for the AMP. Progress has been slow due to time devoted to program design, as well as lengthy timelines for individual projects.

**Table 4-9. Multifamily Performance Program – Goals and Achievements<sup>1</sup>**

Activity	Program Goals (July 1, 2006 through June 30, 2011)	Achieved July 1, 2006 through June 30, 2010	% of Goal Achieved
Number of existing market rate multifamily units receiving energy efficiency services (completed projects)	53,900	21,404	40%
Number of new market-rate multifamily units receiving energy efficiency services	7,500	224	3%
Tenant energy savings per year (at \$250/unit)	\$34,875,000	\$5,406,875	16%
Number of existing low-income multifamily units receiving energy efficiency services (completed projects)	246,000	84,123	34%
Number of new low-income multifamily units receiving energy efficiency services	12,700	2,942	23%
Low-income tenant energy savings per year (at \$195/unit)	\$31,375,500	\$16,997,675	54%

<sup>1</sup>Beginning in Quarter 1 2010, achieved numbers now include the portion of installed savings from units partially-completed with installed measures. Formerly, only projects deemed as “substantially complete” were reported.

#### **4.4.2 Energy, Peak Demand and Fuel Savings**

Table 4-10 shows the cumulative annual energy and peak demand savings from the Multifamily Building Programs. A realization rate and net-to-gross ratio is applied to adjust the program-reported savings based on the most recent Measurement and Verification and Attribution evaluation studies. Net savings in the rightmost column are the total savings being claimed by the program after these evaluation activities.

During Q1 2010, NYSERDA instituted a change in reporting to more accurately capture the level of program savings. In past quarters, savings were reported only for units with all measures installed and all final payments made. Currently, MPP reporting includes a portion of savings from projects that have received a milestone payment for 50% completion. Program and evaluation staff agreed that this method of counting energy and demand savings is more accurate than the previous method of counting only completed and fully paid projects.

**Table 4-10. New York Energy \$mart<sup>SM</sup> Multifamily Building Programs Cumulative Annual Energy and Peak Demand Savings through June 30, 2010**

	Program-Reported Savings	Realization Rate	Adjusted Gross Savings	Free-ridership	Spillover	Net-to-Gross Ratio <sup>1</sup>	Net Savings
<b>Assisted Multifamily Program (AMP)</b>							
<b>MWh/year</b>	68,250	0.97	66,203	27%	15%	0.84	55,577
<b>MW On-Peak</b>	6.3	1.26	7.9	27%	15%	0.84	6.6
<b>MMBtu</b>	451,198	1.0	451,198	27%	15%	0.84	378,781
<b>Comprehensive Energy Management (CEM) Program<sup>2</sup></b>							
<b>MWh/year</b>	5,712	0.57	3,256	2%	18%	1.16	3,765
<b>MW On-Peak</b>	0.3	0.82	0.2	2%	18%	1.16	0.3
<b>Low-income Direct Installation<sup>2</sup></b>							
<b>MWh/year</b>	11,494	1.0	11,494	Not Evaluated	Not Evaluated	Not Evaluated	11,494
<b>MW On-Peak</b>	1.6	1.0	1.6	Not Evaluated	Not Evaluated	Not Evaluated	1.6
<b>Multifamily Performance Program (MPP)</b>							
<b>MWh/year</b>	35,340	Not Evaluated	35,340	Not Evaluated	Not Evaluated	Not Evaluated	35,340
<b>MW On-Peak</b>	3.8	Not Evaluated	3.8	Not Evaluated	Not Evaluated	Not Evaluated	3.8
<b>MMBtu</b>	521,340	Not Evaluated	521,340	Not Evaluated	Not Evaluated	Not Evaluated	521,340
<b>Multifamily Building Programs – Total</b>							
<b>MWh/year</b>	120,796	N/A	116,292	N/A	N/A	N/A	106,176
<b>MW On-Peak</b>	12.0	N/A	13.6	N/A	N/A	N/A	12.3
<b>MMBtu</b>	972,538	N/A	972,538	N/A	N/A	N/A	900,121

<sup>1</sup>Net-to-Gross Ratio = (1-Freeridership) \* (1+Spillover).

<sup>2</sup>Closed program

N/A – Not Applicable



**Table 4-11. EEPS Multifamily Building Programs Cumulative Annual Energy and Peak Demand Savings through June 30, 2010**

	Program-Reported Savings	Realization Rate	Adjusted Gross Savings	Free-ridership	Spillover	Net-to-Gross Ratio <sup>1</sup>	Net Savings
<b>EEPS Low Income Multifamily Performance Program</b>							
<b>MWh/year</b>	603	1.0	603	N/A	N/A	0.9	542
<b>MW On-Peak</b>	0.1	1.0	0.1	N/A	N/A	0.9	0.1
<b>MMBtu</b>	6,590	1.0	6,590	N/A	N/A	0.9	5,931
<b>EEPS Market Rate Multifamily Performance Program – Gas</b>							
<b>MMBtu</b>	1,763	1.0	1,763	N/A	N/A	0.9	1,587
<b>EEPS Total</b>							
<b>MWh/year</b>	603	1.0	603	N/A	N/A	0.9	542
<b>MW On-Peak</b>	0.1	1.0	0.1	N/A	N/A	0.9	0.1
<b>MMBtu</b>	8,353	1.0	8,353	N/A	N/A	0.9	7,518

<sup>1</sup>DPS directed NTG ratio of 0.9 until evaluation of program is done.

N/A – Not Applicable

#### 4.4.3 Other Evaluation Findings

The timeline for completing MPP projects is at least a year. Table 4-12 shows the number of housing units involved in each point of the Program pipeline as of June 30, 2010.

**Table 4-12. Number of Units Participating in MPP According to Status**

Status	Number of Housing Units	
	Existing Buildings	New Construction
Participation Agreement Signed	73,100	9,459a
Design 75% Complete	N/A	7,466
Construction Complete	1,7993a	1,797

N/A – Not Applicable

a Denotes a decline in the number of units from Quarter 1 2010. Each project must complete certain requirements to remain in the program. In some cases, projects do not meet these requirements and are dropped from the program, thus causing a drop in the number of units associated with the projects. Additionally, some projects withdraw from the program, also causing drops in housing units. On balance, however, the total number of housing units increased over Quarter 1 2010.

## 4.5 Market and Community Support Program

### 4.5.1 Progress Toward Goals

Table 4-13 shows the Program's four long-term non-energy goals and progress. The Program has made excellent progress, exceeding all four of its goals.

**Table 4-13. Market and Community Support Program – Goals and Achievements**

Activity	Program Goals (July 1, 2006 through June 30, 2011)	Achieved July 1, 2006 through June 30, 2010	% of Goal Achieved
New manufacturing partners signed up	20	36	>100%
New retail partners (independent) signed up	100	262	>100%
New retail partners (big box, mass merchandisers) signed up	6	16	>100%
ENERGY STAR market share increase on targeted products (on average, across products)	25%	28%	>100%

#### 4.5.2 Energy, Peak Demand and Fuel Savings

Table 4-14 shows the cumulative annual energy and peak demand savings from the Market Support Program.

**Table 4-14. Market and Community Support Program Cumulative Annual Energy and Peak Demand Savings through June 30, 2010**

	Program- Reported Savings	Realiza- tion Rate	Adjusted Gross Savings	Free- ridership	Spillover	Net-to- Gross Ratio <sup>1</sup>	Net Savings
New York Energy \$mart <sup>SM</sup> Products (through 2007)							
MWh/year	Not applicable <sup>2</sup>						615,469
MW On-Peak							121.9
MMBtu							280,298
Keep Cool							
MWh/year	5,159	1.0	5,159	18%	15%	0.94	4,865
MW On-Peak	8.8	1.0	8.8	18%	15%	0.94	8.3
Bulk Purchase							
MWh/year	19,451	2.03	39,486	10%	5%	0.95	37,314
MW On-Peak	3.9	1.62	6.3	10%	5%	0.95	6.0
MMBtu	24,307	0.71	17,258	10%	5%	0.95	16,309
Market Support Program – Total							
MWh/year	N/A	N/A	N/A	N/A	N/A	N/A	657,648
MW On-Peak	N/A	N/A	N/A	N/A	N/A	N/A	136.1
MMBtu	N/A	N/A	N/A	N/A	N/A	N/A	296,607

<sup>1</sup>Net-to-Gross Ratio = (1-Freeridership) \* (1+Spillover).

<sup>2</sup>Savings for the New York Energy \$mart<sup>SM</sup> Products Program are estimated based on market data, survey research, and deemed savings values. Savings for this program were last fully captured in 2006. An update, completed and applied in Quarter 1 2009, added electricity, demand, and fuel savings for 2007 appliances only. An update to this analysis is planned for 2010.

N/A – Not Applicable

## 4.6 CFL Expansion Program

The CFL Expansion Program, as approved in the revised SBC Operating Plan<sup>18</sup>, is one of the five Fast Track programs originally presented in the June 23<sup>rd</sup>, 2008 DPS Order<sup>19</sup>. Details on this EEPS-funded program are included in Appendix A.

Based on the recently-completed impact and market evaluations conducted on this program, electricity and demand savings for the CFL Expansion Program have been calculated through June 30, 2010 and are presented below in Table 4-15.<sup>20, 21</sup>

**Table 4-15. CFL Expansion Program Cumulative Annual Energy and Peak Demand Savings through June 30, 2010**

	Program-Reported Savings	Realization Rate	Adjusted Gross Savings	Net-to-Gross Ratio <sup>1,2</sup>	Net Savings
<b>EEPS Impacts</b>					
<b>MWh/year</b>	189,842	Not Evaluated	189,842	1.6	303,748
<b>MW On-Peak</b>	26.0	Not Evaluated	26.0	1.6	41.6

<sup>1</sup> The shift to upstream markdown and buydown programs led to a switch in methodology of estimating Net-to-Gross. NTG estimation is based on sales from service territories compared with sales from one or more non-program comparison areas, sometimes selected to be demographically similar to the program area. The NTG equals the CFL sales in the program area minus CFL sales in the comparison area all divided by program-supported sales in the program area.

<sup>2</sup> The NTG estimate for the CFL Expansion Program is based on baseline conditions. As NYSERDA's current CFL Expansion Program evaluation is completed, this net-to-gross estimate may be updated.

### 4.6.1 Follow-Up on Evaluation Recommendations

Table 4-16 presents a summary of CFL Expansion recommendations resulting from program evaluations. This table also provides the status of each recommendation (*i.e.*, if a recommendation has already been adopted, if it will be adopted in the future, or if it will not be adopted) as well as a response from program staff to each recommendation. Per DPS quarterly and annual reporting guidelines, these program recommendations will be revisited with program staff and updated, as applicable, on a quarterly basis.

<sup>18</sup> System Benefits Charge, Supplemental Revision for New York Energy Smart<sup>SM</sup> Programs (2008 – 2011. As amended August 22, 2008 and revised March 12, 2009.

<sup>19</sup> Case 07-M-0548, Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard, *Order Establishing Energy Efficiency Portfolio Standard and Approving Programs*, issued and effective September 23, 2008.

<sup>20</sup> NMR Group, *NYSERDA CFL Expansion Fast Track Program: Random Digit Dial and Onsite Survey Results - Interim Report*, Prepared for NYSERDA, March 2010.

<sup>21</sup> Group, *Results of the Multistate CFL Modeling Effort – Final Report*, Prepared for NYSERDA, March 2010.

**Table 4-16. CFL Expansion Evaluation Recommendations and Status**

<b>Source of Recommendation</b> (Contractor, Report Title, Date)	<b>Recommendation</b>	<b>Status</b> (Adopted, Plan to Adopt, or Not Adopting)	<b>Program Implementer Response to Recommendation and Adoption Decision Rationale</b>
Research Into Action, CFL Expansion Process Evaluation, April 2010	NYSERDA should release marketing campaigns in conjunction with incentive funding to draw consumers to the retailers and educate them about the benefits of CFLs.	Adopted	The “Shining Example” marketing campaign was launched in January to promote CFLs through a friendly competition for the best video and essay using social media. Partner promotions increased to take advantage of the campaign.  Program staff plan to continue marketing CFLs as funding allows and have supported a cost-effective campaign in order to market CFLs through the end of the EEPS Program.
Research Into Action, CFL Expansion Process Evaluation, April 2010	NYSERDA should encourage retailers to dovetail their marketing efforts with NYSERDA’s to get a “bigger bang for the marketing dollars.”	Adopted	All partner and account representatives promote NYSERDA’s Shining Example Campaign. More than 10 partners hosted events to promote the campaign and to collect videos.
Research Into Action, CFL Expansion Process Evaluation, April 2010	NYSERDA should provide more pamphlets and take-away educational materials for consumers and make point-of-purchase materials/signage more visible and dynamic.	Adopted	Shining Example point-of-purchase material and lighting brochures were distributed to all partners promoting the campaign in the spring.
Research Into Action, CFL Expansion Process Evaluation, April 2010	Incentive amounts on a per product basis are currently adequate, but NYSERDA should monitor levels to meet program needs and market conditions. CFL prices are declining over time and incentives should also be reduced gradually.	Adopted	Program staff are flexible on how incentive funds are used. Several new promotions have been implemented that go above the standard \$1/bulb threshold.
Research Into Action, CFL Expansion Process Evaluation, April 2010	NYSERDA should consider higher incentives for targeted products and markets. For example, if the program wishes to target low-income customers, it may want to engage dollar-type stores, which only sell products priced at \$1.00 or less and would require a higher per-bulb incentive commitment.	Adopted	Program staff is currently segmenting statewide markets to determine areas that are lagging behind in sales or promotional activity in an effort to identify incentive levels applicable to those areas.
Research Into Action, CFL Expansion Process Evaluation, April 2010	NYSERDA should work with the implementation contractor to consider how shipment data can better document sales of incentivized products in SBC territory. This may include more detailed accounting of the retail sales or confirmation from retailers that shipments from a distribution center are being sold in SBC territory.	Plan to Adopt	Program staff plans to coordinate and streamline its requests for manufacturer information. Some manufacturers may not ship product into New York, but still have a large impact on the New York market. Program staff plans to determine a way to better capture this information in coordination with its implementation contractor.

<b>Source of Recommendation</b> (Contractor, Report Title, Date)	<b>Recommendation</b>	<b>Status</b> (Adopted, Plan to Adopt, or Not Adopting)	<b>Program Implementer Response to Recommendation and Adoption Decision Rationale</b>
Research Into Action, CFL Expansion Process Evaluation, April 2010	In order to improve the accounting of sales in the SBC territory (and ease the assimilation of data received from the partners), the implementation contractor should streamline partner reporting requirements by providing regular reporting timelines and templates.	Adopted	Program staff have been streamlining program partner reporting guidelines for several years. In addition to collecting program-required information, program staff is now attempting to collect additional information from partners ( <i>e.g.</i> , market-level data), if available, that could provide greater understanding of market trends to inform program marketing efforts.
NMR Group, Impact Evaluation, NYSERDA CFL Expansion Fast Track Program: Random Digit Dial and Online Survey Results, March 2010	Consider outreach messaging to CFL users that encourage additional purchases of CFLs, rather than improving consumer awareness. Future marketing campaigns may want to educate committed current CFL users on the benefits of further increasing the number of sockets in which they have installed CFLs.	Plan to Adopt	In the past, NYSERDA's marketing messages have focused on improving consumer awareness. NYSERDA will attempt to increase emphasis on increasing the number of CFLs installed by committed current CFL users.
NMR Group, Impact Evaluation, NYSERDA CFL Expansion Fast Track Program: Random Digit Dial and Online Survey Results, March 2010	Continue to incentivize products to encourage consumers to purchase CFLs. The multi-state modeling effort suggests that once households start using CFLs, they largely will continue to do so.	Adopted	NYSERDA's marketing messages continue to focus on increasing consumer awareness of CFLs.
NMR Group, Impact Evaluation, NYSERDA CFL Expansion Fast Track Program: Random Digit Dial and Online Survey Results, March 2010	Continue incentives for multipacks of CFLs in the selection of program offerings at retailers, so that households can easily have extra CFLs available. Because most consumers prefer to keep bulbs on hand, if they can reach for a CFL without making a special trip to a retailer, they will be more likely to use one the next time a bulb burns out.	Adopted	Program staff has urged manufacturers to target smaller multipacks to speed market adoption of CFLs. CFLs sold in packs up to five are now eligible for program cooperative advertising funds.
NMR Group, Impact Evaluation, NYSERDA CFL Expansion Fast Track Program: Random Digit Dial and Online Survey Results, March 2010	To capture program savings from CFLs in multipacks immediately, consumer outreach can also educate consumers about the value of replacing incandescents right away, rather than waiting for them to burn out.	Adopted	NYSERDA's marketing messaging always promote early replacement.
NMR Group, Impact Evaluation, NYSERDA CFL Expansion Fast Track Program: Random Digit Dial	Consider increasing support of more specialty bulbs, while still including standard CFLs in the mix of products incentivized by the CFL Expansion Program.	Plan to Adopt	A market segmentation analysis for specialty bulbs is underway. This analysis will result in more targeted promotions for specialty bulbs once the segments that carry them are identified.

Source of Recommendation (Contractor, Report Title, Date)	Recommendation	Status (Adopted, Plan to Adopt, or Not Adopting)	Program Implementer Response to Recommendation and Adoption Decision Rationale
and Online Survey Results, March 2010			
NMR Group, Results of the Multistate CFL Modeling Effort, March 2010	NYSERDA should take steps to protect its NTG ratios and limit the almost certain decrease that will come in the wake of high saturation. NYSERDA should continue its focus on regional and local retailers and expand focus on the retail channels that currently sell few CFLs and those that serve households that do not currently use CFLs at all or in large numbers.	Adopted	Program staff continues its strategy of working with regional and local retailers that serve the highest percentage of households.
NMR Group, Results of the Multistate CFL Modeling Effort, March 2010	If CFL program sponsors remain committed to calculating NTG for CFLs (also LEDs and other small, relatively inexpensive products), they must work together with retailers and manufacturers to find acceptable ways of sharing sales data that do not threaten retailer and manufacturer competition but that still allow programs to assess, in the most accurate way possible, what their impact has been on the CFL market. Without such data, any estimate of the net impact of CFL programs will suffer from reliability and validity concerns to varying and sometimes unquantifiable degrees.	Plan to Adopt	Program staff agree and will continue to work with other energy-efficiency program administrators to support this issue.

## 4.7 Communities and Education Program

### 4.7.1 Progress Toward Goals

As shown in Table 4-17, seven long-term non-energy goals have been set for the Communities and Education Program. The Program has made excellent progress, exceeding all seven of its goals.

**Table 4-17. Communities and Education Program – Goals and Achievements**

Activity	Program Goals (July 1, 2006 through June 30, 2011)	Achieved July 1, 2006 through June 30, 2010	% of Goal Achieved
Teachers trained	5,000	5,009	>100%
Total students reached	150,000	609,120	>100%
Portion of total estimated to be low-income students	100,000	243,648	>100%
Community events held statewide	1,000	1,658	>100%
Recruiting seminars held statewide	500	524	>100%
Home performance contractors, technicians, builders and raters recruited (attending seminars) for the Single Family Home Performance Program	800	1,363	>100%
Building analysts, designers, energy consultants, equipment installers, etc. recruited (attending seminars) for Multifamily Building Performance Program	100	367	>100%

## 4.8 EmPower New York<sup>SM</sup>

The EmPower Program continues to monitor key non-energy metrics to assess their growth as proxies for program expansion. Table 4-18 shows these metrics and their current status. Overall, these measures continue to show progress over time, corresponding with program growth.

**Table 4-18. EmPower New York<sup>SM</sup> Program – Key Activities**

Activity	Goal	Achieved July 1, 2006 through June 30, 2010	% of Goal Achieved
Households Served (SBC III)	31,500	30,728	98%
Households Served (EEPS Elec.)	22,539	9,406	42%
Households Served (EEPS Gas)	2,128	17	<1%

### 4.8.1 Energy, Peak Demand and Fuel Savings

Table 4-19 shows the cumulative annual energy and peak demand savings from the EmPower Program including both **New York Energy \$mart<sup>SM</sup>** and EEPS funding. A realization rate is applied to adjust the program-reported savings based on the most recent Measurement and Verification evaluation studies. These programs have not undergone any attribution evaluation, so no adjustment is made for net-to-gross.

**Table 4-19. EmPower New York<sup>SM</sup> Program Cumulative Annual Energy and Peak Demand Savings through June 30, 2010**

	Program-Reported Savings	Realization-Rate	Adjusted Gross Savings	Net-to-Gross Ratio	Net Savings
<b>New York Energy \$mart Impacts</b>					
<b>MWh/year</b>	61,457	N/A <sup>1</sup>	51,052	Not Evaluated	51,052
<b>MW On-Peak</b>	8.23	1.0	8.23	Not Evaluated	8.23
<b>MMBtu/yr</b>	183,099	1.0	183,099	Not Evaluated	183,099
<b>EEPS Impacts</b>					
<b>MWh/year</b>	9,229	0.81	7,475	Not Evaluated	7,475
<b>MW On-Peak</b>	.82	1.0	0.82	Not Evaluated	0.82
<b>MMBtu/yr</b>	494	1.0	494	0.9	445
<b>Total Impacts</b>					
<b>MWh/year</b>	70,685	N/A	58,528	N/A	58,528
<b>MW On-Peak</b>	9.1	N/A	9.1	N/A	9.1
<b>MMBtu/yr</b>	183,593	N/A	183,593	N/A	183,544

<sup>1</sup> **New York Energy \$mart<sup>SM</sup>** EmPower impacts include EmPower New York and Weatherization Network Initiative programs, which have different realization rates for MWh/year.

N/A – Not Applicable

#### **4.8.2 Follow-Up on Evaluation Recommendations**

Table 4-20 presents a summary of EmPower recommendations resulting from program evaluations. This table also provides the status of each recommendation (*i.e.*, if a recommendation has already been adopted, if it will be adopted in the future, or if it will not be adopted) as well as a response from program staff to each recommendation. Per DPS quarterly and annual reporting guidelines, these program recommendations will be revisited with program staff and updated, as applicable, on a quarterly basis.



**Table 4-20. EmPower Evaluation Recommendations and Status**

<b>Source of Recommendation (Contractor, Report Title, Date)</b>	<b>Recommendation</b>	<b>Status</b>	<b>Program Implementer Response to Recommendation and Adoption Decision Rationale</b>
Nexant, EmPower M&V, April 2007	Devise a methodology to automate the electronic transfer of results from the EmPower New York <sup>SM</sup> Calculator to the EmPower New York <sup>SM</sup> database.	Plan to Adopt	Program staff had discussions with DHCR regarding their TIPS software and PSD for the TREAT software to combine features of each into a single auditing tool. Staff are currently reviewing the EmPCalc tool, the current version of the NY State Tech Manual, and other data. Changes are on hold pending outcome of this review and completion of current program evaluations.
Nexant, EmPower M&V, April 2007	Devise a methodology to incorporate the AHAM baseline energy usage data, adjusted for degradation for refrigerators and freezers into the EmPower New York <sup>SM</sup> Calculator to avoid the manual data entry errors while transferring results from REFRIGERATION <sup>®</sup> software to the EmPower New York <sup>SM</sup> Calculator.	Plan to Adopt	As noted above, program staff had discussions with DHCR on their TIPS software and PSD for the TREAT software for combined use in auditing tool. These revisions are on hold pending the process described for the above recommendation.
Research Into Action, EmPower, Process Evaluation, April 2009	Collect name, address, email address, and phone number of each workshop attendee. Determine if an attendee is already in EmPower, joined EmPower after attending, is ineligible for EmPower, or has yet to enroll in EmPower.	Plan to Adopt	Contact information will now be gathered by the new workshop provider. Assessment on the impact of attendance on enrollment in EmPower will then be assessed during a later evaluation. The Program recently released an RFP for a new workshop provider/contractor and proposals are under review. The new provider will be required to collect this workshop attendee contact information.”
Research Into Action, EmPower, Process Evaluation, April 2009	Use GIS analysis to locate workshop sites in areas with large numbers of low income households within acceptable travel distances.	Plan to Adopt	The new workshop provider has been given GIS data from 2010 Process Evaluation. The provider is adjusting workshop locales to align with low income populations per county.
Nexant, EmPower M&V, April 2007	Devise a methodology to automate the electronic transfer of results from the EmPower New York <sup>SM</sup> Calculator to the EmPower New York <sup>SM</sup> database.	Plan to Adopt	Program staff had discussions with DHCR regarding their TIPS software and PSD for the TREAT software to combine features of each into a single auditing tool. Staff are currently reviewing the EmPCalc tool, the current version of the NY State Tech Manual, and other data. Changes to this recommendation are on hold pending outcome of this review and completion of current program evaluations.

#### **4.8.3 Empower Program Process Evaluation**

A comprehensive process evaluation of EmPower was completed in 2007. In 2009, a supplemental process evaluation was conducted, focusing on assessment of referrals, distribution and effectiveness of educational workshops, and coordination of quality assurance responsibilities. This 2010 process evaluation focuses on the following four specific areas of the EmPower program:

1. Agencies' and contractors' current business condition and their ability to meet expected workload increases
2. Effectiveness of the newly redesigned educational workshops
3. Effectiveness of the in-home educational services
4. Distribution of EmPower services across the state and among various households by characteristic

#### **Conclusions and Recommendations**

The first evaluation objective sought to assess the potential effects of anticipated WAP funding increases from the American Recovery and Reinvestment Act of 2009 (ARRA) on the availability of service providers to handle the EmPower workload. EmPower staff was concerned about how an infusion of ARRA funds, coupled with new funds from other state initiatives, might significantly increase the workloads of existing EmPower service providers. Interviews were designed and conducted to determine the capability of agencies and contractors to absorb a larger workload. In contrast to expectations, when interviews began, ARRA funds were delayed and several of the anticipated state funding sources for EmPower were also delayed or awaiting approval.<sup>22</sup> These combined factors resulted in a shortage of available funding, limiting EmPower's capacity to assign the expected number of referrals to contractors. With inadequate funds to continue the program at predicted levels, EmPower chose, in July 2009, to implement a new work allocation plan resulting in fewer job referrals for EmPower contractors who were actually expecting an increase in referrals.

This evaluation began when program service providers were experiencing the real affects of limited referrals. This slowdown in referrals and jobs created the need to shift the focus of the first objective of the evaluation to describing how this slowdown in work affected EmPower service providers.

#### **Managing Agencies and Contractors**

**Conclusion: The temporary reduction in workload has had a negative impact on many of the service providers' businesses.** EmPower has successfully built its capacity by developing new service providers and encouraging existing ones to expand their capabilities. This careful development of well trained service providers is a strong program asset. Both WAP agencies and private weatherization contracting firms make significant investments in training and equipment to prepare to work on EmPower jobs. In many cases, firms reported recently expanding their capacity to meet the expected workload increases. Although service providers were never given guarantees of increased workloads, all parties

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<sup>22</sup> Long expected funds from EEPS-Gas program funding were further delayed. Regional Greenhouse Gas Initiative (RGGI) funds expected to be allocated to EmPower were instead allocated to other programs. In addition, a gas filing to DPS resulted in National Grid stopping its funding of gas-related work, leaving another big gap in funding. Finally, DPS and NYSERDA miscommunicated on the portion of the ARRA funds allocated to low income programs.

were aware that workloads had been steadily rising and expected this trend to continue, especially given the prospects of new ARRA funding.

This work reduction came unexpectedly and counter to expected trends and thus caught service providers by surprise and unprepared. The hardest hit appear to be private contractors, who generally counted on EmPower for a larger fraction of their business, and unlike WAP agencies, are not eligible to receive ARRA funding. As a result of the slowdown in referrals, many service providers had to lay off workers; a few indicated that due to this experience they were no longer willing to participate in EmPower.

**Recommendation: New York needs to continue its commitment to funding EmPower because of its important role in providing weatherization and other services for low income households.** Recent cutbacks in EmPower funding were based on the assumption that the infusion of ARRA funds into WAP would enable this program to serve the needs of the low income households in New York. Nevertheless, even with ARRA funding, WAP can only provide weatherization for a small percentage of low income households in the state. EmPower is able to serve some low-income households that would not otherwise qualify for WAP services. In particular, EmPower, can help households with an emergency need for assistance, unlike WAP, which works from a waiting list that can extend for years.

**Conclusion: Some of the concerns of service providers might have been addressed with earlier communication by NYSERDA.** While EmPower probably could not have done anything to prevent the work reduction, it could have better communicated the situation to the service providers. In hindsight, the program and service providers would have been better served had EmPower immediately released a statement outlining the reasons for the funding delays and the uncertainty about future funding. Most of these issues were clarified at the Statewide Annual Meeting in November, but that took place over three months after the new allocation plan was formulated. By the time of the meeting, many service providers had already formed a lasting opinion about the program and NYSERDA.

**Recommendation: EmPower should strive to provide clear and timely information to all service providers on funding availability.** EmPower is dependent on service providers' willingness to commit resources to serving the program. That willingness is based on a trust that EmPower will fairly provide them available work. The recent situation has harmed that trust. NYSERDA does not contract with service providers for a specific number of jobs over a period of time. NYSERDA therefore needs to communicate as clearly as possible the short- and long-term job situation, and to immediately inform service providers when the situation changes. This should include:

- Issue a description of the job allocation process. EmPower needs to publish a concise description of the procedure that Honeywell uses to allocate jobs to the service providers. As a result of an earlier draft recommendation, EmPower has already directed Honeywell to publish a clear description of the job allocation process.
- Consider developing a workload chart so that contractors and agencies can get an idea about future workloads. This chart could show how funding availability affects the number of jobs over time and reflect EmPower's known funding sources and projected jobs per week as a trend. This strategy was instituted by EmPower in the past and was recently reinstated by NYSERDA.
- EmPower/NYSERDA needs to have a policy to inform contractors on a short term basis, with predictable frequency, when the work allocation changes. Service providers need an immediate and transparent update of program status when it changes; as soon as it is known.

### Education Workshops

**Conclusion:** The *Save Energy, Save Dollars* education workshops and the in-home education session succeeded in their goal to influence people to take energy saving actions. Most of the attendees of workshops (89%) and of in-home audits (75%) report that the training influenced them to take an energy saving action. Most of these actions involved turning off lights and other equipment and purchasing CFLs and weather stripping. In addition, 11% of the workshop attendees and 14% of in-home audits recipients report that they began turning down their thermostats at night after the workshop/audit.

**Recommendation:** EmPower should continue recent efforts to revise the curriculum and presentation so that the workshops are even more successful in prompting attendees to take energy saving actions. Among the recommendations are the following suggestions:

- Provide greater opportunity for trainers to get supplemental training and hands-on experience on the technical measures they are presenting.
- Work with training coordinators and trainers to further develop interactive aspects of the training sessions.
- Emphasize and incorporate reminders throughout the workshop to fill out the Action Plan.

### Distribution of EmPower

**Conclusion:** A large portion of EmPower funds are used to treat homeowner properties in areas with a disproportion number of non-minority households. However, the GIS data show that when renters and New York City households are removed from the analysis, funds are similarly distributed across block-groups with high and low concentration of minorities. This suggests that current efforts are relatively equal in opportunity for minorities with respect to owner-occupied households outside of New York City.

**Recommendation:** For equity reasons, NYSERDA should continue to increase its focus on reaching renters and households in New York City. As EmPower staff understand, such an effort will require additional attention and funding to increase penetration into these harder to reach areas. Unless funding is significantly increased, this shift in emphasis may require an even larger reduction in the number of owner-occupied homes treated in the upstate area.

## **4.9 Buying Strategies and Energy Awareness Program**

### **4.9.1 Progress Toward Goals**

Four long-term non-energy goals have been set for the Buying Strategies and Energy Awareness Program. These five-year goals and progress are shown in Table 4-21. The Program has already exceeded three of its four goals and is on target relative to the fourth one.

**Table 4-21. Buying Strategies and Energy Awareness Program – Goals and Achievements**

Activity	Program Goals (July 1, 2006 through June 30, 2011)	Achieved July 1, 2006 through June 30, 2010	% of Goal Achieved
Funds leveraged through Buying Strategies initiative	\$20 million	\$17.5 - \$19 million	88%
Additional low-income individuals reached via newsletters, weekly newspapers, etc. (readership) <sup>1</sup>	5 million	12.9 million	>100%
Additional low-income individuals reached via seminars and workshops (attendees) <sup>2</sup>	15,000	113,772	>100%
Additional contractors and other partners recruited in low-income districts	50	1400	>100%

<sup>1</sup>This row includes media buys as well as media outreach and coverage of Energy Smart Coordinator Community events. The dramatic increase in Quarter 2 figures over Quarter 1 is attributed to a three large media events led by E\$ Community Coordinators in Binghamton, the Capital Region, and the north country of NYS. These combined events garnered widespread television coverage, thus increasing the number of low income attendees reached.

<sup>2</sup> In order to better capture the number of low income attendees at seminars and workshops this row now includes EmPower education workshop figures as well as the estimated number low income individuals attending events as submitted by the NYSERDA Consumer services and events Management team.



# 5

## ***Research and Development Programs***

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### **5.1 Research & Development (R&D) Program Evaluation Activities**

#### ***5.1.1 Completed Evaluation Activities***

During the second quarter of 2010, the following evaluation projects were completed on the Research and Development Programs:

- Process evaluation the Environmental Monitoring, Evaluation and Protection Program
- Process evaluation on the R&D solicitation process

#### ***5.1.2 Evaluation Activities in Progress and Planned***

In the coming quarters, NYSERDA expects to initiate evaluations on the Distributed Generation Combined Heat and Power Program upon receiving DPS approval of its detailed evaluation plan.

#### **R&D Program Impact Evaluation**

NYSERDA has ongoing activities in the following areas of R&D impact evaluation:

- Metrics Database - A new database of metrics that will map to program outputs and outcomes, and demonstrating progress toward R&D program goals continues to be developed and will be ready to start receiving data in the third quarter of 2010.
- Product Demonstration Impacts – Surveys of companies participating in NYSERDA’s demonstration programs began in late 2009 and will be completed in the third quarter of 2010. These surveys will be used to determine the extent of spillover from program-induced activities attributable to NYSERDA’s R&D demonstration program. Three market actors have been surveyed: site owners, technology vendors, and technology vendors. The results of these surveys will be published in the 2010 Annual Report.
- Case Studies – Six product development projects were selected for an in-depth analysis of their energy, economic, and environmental impacts. The case studies for NXP Semiconductors Power Management Device and BAE Systems Hybrid Electric Vehicle Powertrain have been completed and results were summarized in the 2009 Annual Report. The results of the case study for Anaerobics/Evocation Mobilized Film Technology for Wastewater Treatment will be summarized

in the third quarter report. The AWS Truewind Wind Forecasting Process & Services case study began in June 2010. The case studies for Protech Systems, Inc. Venting System for High Efficiency Heating Systems and the Spectronics Corporation R-134A Leak Detection System have been suspended.

## 5.2 Summary of R&D Evaluation Results

### 5.2.1 Progress Toward Non-Energy Goals

Across the programs, a number of long-term goals were set for key metrics such as: the number of solicitations, studies, and projects; the number of workshops; the number of companies doing business in New York; new products developed and launched; and other important knowledge creation, information dissemination, and commercialization progress metrics. Overall, the programs are performing well with respect to these goals. Results of each program's progress toward its stated goals are shown in table format in this section. Many of these goals are qualitative in nature. Some, some key areas of progress since July 1, 2006 include the following:

- Under the Public Benefit Power Transmission and Distribution Program, 30 projects have been approved to provide 21 companies about \$10 million to pursue development of advanced technologies that will improve the efficiency and delivery of power for electric customers across the State.
- The Clean Energy Infrastructure Program has released 14 competitive research solicitations, assisted in accreditation of four training institutions, and eight manufacturing companies have expanded their clean technology operations.
- The Power Systems Product Development program has assisted the launching of 12 new products.
- The DG-CHP Demonstration Program has provided funding for 40 CHP demonstration projects located at 46 sites. Project information, including site characteristics, are posted on the Internet (<http://chp.nyserda.org>) for over 100 sites.<sup>1</sup> Currently, daily performance data is being uploaded from 15 sites. In addition, 22 sites have met their performance reporting obligations.<sup>2</sup>
- The Demand Response and Innovative Rate Research Program completed a three-year time sensitive rate pilot, demonstrating load reduction impacts of 23% from submetering.
- The Electric Transportation Program has approved 32 projects. Projects include both over-the-road technologies and electrified rail. Anti-idling and electric substations are also part of the project portfolio.
- Eight solicitations offering EMEP funding have been issued. These solicitations focused on sequestration, impacts of renewable energy, ecosystems, and air quality, and have led to 54 projects being contracted.

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<sup>1</sup> Includes projects originating prior to July 1, 2006.

<sup>2</sup>Performance data from 22 additional sites that have met their reporting obligations are available on the Internet.



- The Industrial Process & Product Innovation Program has approved funding for 59 cost-shared demonstration and/or development projects.
- The Municipal Water and Wastewater Efficiency Program has issued eight solicitations, funding 19 projects that serve approximately 35 facilities directly.
- Under the Next Generation and Emerging Technologies Program, 69 projects, consisting of 32 Emerging Technologies projects, 22 Advanced Buildings projects, 13 Daylighting projects, and two Solar Thermal projects, are underway or completed.

### 5.2.2 Energy, Peak Demand, Fuel Savings, and Clean Generation

Table 5-1 shows the energy savings and renewable energy production achieved by the R&D portfolio through June 30, 2010. Table 5-2 highlights demand reduction achievements, and Table 5-3 shows impacts for other fuels, such as natural gas and oil.

**Table 5-1. R&D Program Electricity Savings and Clean Generation through June 30, 2010**

Program	Energy Savings (GWh)	
	Savings Achieved through	
	June 30, 2006	June 30, 2010
DG-CHP Demonstration Program <sup>1</sup>	82.7	367.2
Renewable Energy Production	103.8	106.2
<b>Statewide R&amp;D Total</b>	<b>186.5</b>	<b>473.4</b>

<sup>1</sup>Savings shown in this row are inclusive of overlap with the FlexTech Technical Assistance Program. This cross-sector overlap is subtracted out at the portfolio level in Table 2-6.

**Table 5-2. R&D Program Cumulative Peak Demand Savings through June 30, 2010**

Program	Demand Savings (MW) <sup>1</sup>	
	Savings Achieved through	
	June 30, 2006	June 30, 2010
DG-CHP Demonstration Program <sup>2</sup>	18.1	87.6
Demand Response and Innovative Rate Research	137.2	99.0
Renewable Energy Production	8.1	9.8
<b>Statewide R&amp;D Total</b>	<b>163.4</b>	<b>196.4</b>

<sup>1</sup>MWs enabled under the SBC2 program Enabling Technologies for Price Responsive Load were not required to persist beyond the period of the contract. As such, the available MWs have steadily declined since the program's close.

<sup>2</sup>Savings shown in this row are inclusive of overlap with the FlexTech Technical Assistance Program. This cross-sector overlap is subtracted out at the portfolio level in Table 2-4.

**Table 5-3. R&D Program Cumulative Annual Fuel Savings through June 30, 2010**

Program	Fuel Savings (MMBtu)	
	Savings Achieved through	
	June 30, 2006	June 30, 2010
DG-CHP Demonstration Program <sup>1</sup>	(571,310)	(3,360,602)
<b>Statewide R&amp;D Total</b>	<b>(571,310)</b>	<b>(3,360,602)</b>

<sup>1</sup>Because the electricity saved by the DG-CHP projects replaces electricity formerly purchased from the grid, the program has reduced fuel used at central generating stations, for a net decrease statewide due to greater efficiency of the DG-CHP systems at sites where imported fuel is used. The fuel avoided at the central generating plant is determined from the electricity generated by the DG-CHP installations. Furthermore, at additional projects such as wastewater treatment plants, electricity generation is powered fully or partially by digester gas produced on site. Such fuel switching achieves natural gas conservation above and beyond what is achieved through efficiency alone.

### 5.2.3 R&D Solicitation Process Evaluation

This section summarizes a process evaluation by Research Into Action Inc. in 2010 that examined NYSERDA's Research & Development (R&D) programs to identify strengths and weaknesses in its solicitation processes and generate recommendations for continued or increased success. The full process evaluation report is available by request and will soon be posted on NYSERDA's website.

NYSERDA provides R&D funding through competitive solicitations, or program opportunity notices (PONs), publicized through a variety of channels. Proposals are evaluated by a technical evaluation panel (TEP). This process evaluation work reviews the 2007 through 2009 activities. The evaluation team reviewed program-related documents and data files; conducted in-depth interviews with 11 members of NYSERDA staff and 18 TEP members; surveyed 120 proposers to R&D PONs and 67 "non-proposers" who were on solicitation distribution lists but did not apply for funding; and interviewed staff of two similar funding organizations to provide a comparison of program processes. Findings, conclusions and recommendations are discussed below.

## **FINDINGS**

### **Program Documents and Data**

Program documents and data files had detailed and useful information, but analysis of program data files showed variability in how some data are recorded, which may create a challenge for providing proposal evaluation results and feedback to proposers, effectively targeting funding opportunity notices, and tracking response in a meaningful way.

### **Staff and TEP Comments**

R&D staff endorsed the solicitation development processes, but several reported that a recently adopted information management system was cumbersome and introduced delays. Staff opinions varied about the outreach database (ORDB), which is used to generate mass distribution of funding opportunity announcements; it has not been kept up to date and is not used to track responses to solicitations. However, an updating effort is planned for 2010 and new customer management software may replace the ORDB.

Staff and TEP members generally endorsed the proposal evaluation process, particularly the scoring and ranking method, the diversity found in TEPs, and the way the review meetings were conducted. TEP members found serving on a TEP to be professionally rewarding. The workload is unequal across panels, and some members would like to reduce the burden in a way that is fair and transparent to proposers.

The distribution of proposal quality varies across program areas, but most proposals are meritorious. Potential reasons for non-meritorious proposals include lack of effort, skill, experience, or resources on the part of responders, as well as complex, burdensome, or unclear solicitation requirements or research goals. Staff members believe that seeking clarification of proposal requirements before submitting proposals or requesting debriefings improves proposal quality but that relatively few potential applicants do so.

### Survey Findings

Survey respondents represented organizations with a wide range of sizes, research activities, and NYSERDA R&D experience. Most had applied for funding to other agencies. Respondents learned about funding opportunities mainly through the NYSERDA website, word of mouth, mailings, emails, and R&D staff. Awareness was low that NYSERDA had stopped mailing announcements of funding opportunities and was planning an on-line tool for submitting proposals; however, most respondents said they are very likely to use the on-line tool and that eliminating paper mailing will not diminish their ability to follow funding opportunities.

A good fit between the solicitation and the respondent's research was the most important consideration in deciding to submit a proposal. Proposers generally thought their project fit the funding opportunity very well, but poor fit was a key reason non-proposers had not submitted a proposal.

While respondents generally found solicitation requirements at least mostly clear and thought they had adequately responded to solicitations, burdensome or complex contractual or legal requirements appear to be a barrier for at least some market actors. One-third of proposers found requirements moderately or extremely difficult to follow – the most troublesome were those for the commercialization plan.

Cost-sharing or recoupment requirements may be a barrier for some groups. Those were the most-commonly mentioned requirements that kept respondents from submitting a proposal. Not-for-profits in particular cited those requirements as important considerations in deciding whether to propose.

A large majority of proposers said NYSERDA typically allowed sufficient time to prepare proposals, and the availability and use of staff resources to prepare proposals were both unrelated to funding history. On the other hand, non-funded proposers were less likely to say they had sufficient time, and one-third of non-proposers cited insufficient time as a major reason for not submitting a proposal. For out-of-state respondents, the belief that being out of state reduced the chance of success was a key reason cited for not having submitted a proposal.

All respondents who attended NYSERDA pre-submittal information sessions or who had debriefings after being turned down for funding found the experience valuable, and attending an information session was positively related to proposing versus not proposing and to success at receiving funding. Although about half of the respondents who had been turned down for funding did not request a debriefing, a large majority would like to get a written notice of their proposal's strengths and weaknesses.

Reflecting the above findings, large majorities of respondents agreed that NYSERDA is well regarded and that it is accommodating and helpful, and NYSERDA fared well on a variety of comparisons with

other funding agencies, while those who agreed that NYSERDA can be difficult to work with most frequently cited communication issues or the complexity of application or contract requirements.

### Comparison with Other Funding Agencies

The evaluation team compared NYSERDA's R&D solicitation development and project selection processes with those of the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE) and the California Energy Commission's Public Interest Energy Research (PIER) program. The three organizations are similar on several points concerning the range of program areas and project types covered and in solicitation development and proposal review processes. Key distinctions are:

- NYSERDA provides funding for energy producing subsidies, business development, and product development and provides R&D funding for non-energy related environmental research.
- EERE and PIER offer grant support as well as contract support.
- While EERE and PIER use many of the same channels as NYSERDA to publicize solicitations, EERE relies mainly on the [www.grants.gov](http://www.grants.gov) website to market applications and PIER relies primarily on technical forums held during the solicitation development period.
- Unlike NYSERDA, EERE and PIER do not allow potential applicants to contact program technical staff for clarification of solicitation requirements, only allowing questions submitted to [www.grants.gov](http://www.grants.gov) (EERE) or to contracts and grants staff (PIER). In both cases, questions and answers are published on the solicitation websites.
- The uses of external proposal reviewers by EERE and PIER depart somewhat from NYSERDA's. PIER's external review precedes the review by internal staff and produces recommendations, but not scores, and EERE's external panel appears to be directly involved in final funding decisions.
- As distinct from NYSERDA, EERE does not offer a formal debriefing, but provides a written technical summary of each submittal's strengths and weaknesses and applicants may obtain additional information by telephone.

### CONCLUSIONS AND RECOMMENDATIONS

**Conclusion:** Despite efforts by R&D staff to make solicitation requirements clear and understandable, the complexity of some solicitation requirements may be a barrier to submitting proposals.

**Recommendation:** Continue to explore ways to make requirements clear and easy to follow, such as by conducting research specifically on the commercialization requirements to solicit detailed feedback and suggestions for clarification.

**Conclusion:** Cost-sharing and recoupment requirements may be a barrier to proposing.

**Recommendation:** NYSERDA should consider waiving or lowering the cost-share requirements for not-for-profit organizations.

**Conclusion:** Providing clarification of solicitation requirements improves proposals.

**Recommendation:** Continue to encourage potential applicants to attend information sessions or directly contact program staff for clarification of requirements and to send broadcast emails to announce information sessions to be held in the field, by teleconference, or by webinar.

**Conclusion:** Belief that being from out-of-state is a disadvantage may keep a substantial number of organizations from submitting proposals.

**Recommendation:** Clearly state in solicitations that location will not be a selection criterion, and provide statistics on the website and in solicitation announcements showing that out-of-state organizations are not disadvantaged, compared to in-state organizations.

**Conclusion:** A written summary of proposal strengths and weaknesses may improve proposals.

**Recommendation:** Send a written summary of proposal strengths and weaknesses with the letter informing respondents of funding decisions; continue to include notification that respondents may also request a formal debriefing.

**Conclusion:** A review of debriefing procedures may help ensure that proposers understand the correct procedure for requesting one, and that procedures are followed.

**Recommendation:** NYSERDA R&D should annually review procedures for requesting and scheduling debriefings and for communicating those procedures to proposers and subsequently review those procedures with all R&D staff to ensure that the procedures are understood and followed.

**Conclusion:** Results support NYSERDA's plan to update the ORDB, and suggest the planned update should go beyond adding email addresses.

**Recommendation:** Carry out the update as planned, but use that opportunity to improve tracking capabilities. Incorporate features and adopt conventions to ensure consistent recording of organization names, departments within organizations, and affiliations with other organizations and revise records that do not comply with the adopted conventions. Incorporate separate fields to record both technical and non-technical contacts; to identify types of interests in funding opportunities; to identify list entities by type; and to identify entities or individuals that should not be contacted for surveys.

**Recommendation:** Develop ways to obtain the information from those already listed in the ORDB to add to newly incorporated fields, such as by sending email requests or allowing individuals to update their records on-line in the ORDB.

**Recommendation:** Develop a way to generate an individualized email to each recipient of a broadcast email announcement.

## **5.3 Public Benefit Power Transmission and Distribution Research**

### **5.3.1 Progress Toward Goals**

Two long-term goals have been set for the Public Benefit Power Transmission and Distribution Program. These goals and progress are described in Table 5-4. The program was initiated in 2007 with a total of \$10 million available under SBC III. Three PONs have been released, with the following stated objectives:

1. Demonstrate and develop technologies that improve the performance of the electric power delivery system in New York
2. Develop strategies that support sustainable investment, equitable and efficient electric energy markets, and continued improvement of the electric power delivery system in New York

The number of approved and contracted projects by solicitation are shown in Table 5-5.

**Table 5-4. Public Benefit Power Transmission and Distribution Research Program – Goals and Achievements**

Activity	Program Goals (July 1, 2006 through June 30, 2011)	Achieved July 1, 2006 through June 30, 2010
Issue annual solicitations	Twelve or more projects resulting in progress toward program objectives	Two solicitations were completed (total of four rounds). resulting in 27 projects. To date, 24 contracts have been signed.  ARRA 2009 provided a unique opportunity to leverage funding. Three (3) additional projects used ARRA funding for a variety of research activities. All projects are in various stages of development.
Technology transfer	Undertake knowledge transfer activities aimed at utilities	Knowledge transfer activities have begun as projects near completion. Results from one of the projects were shared with the NYS Smart Grid Consortium and will be presented at the 2010 CIGRE conference (International Council on Large Electric Systems).

Knowledge transfer activities have begun as projects near completion. For example, preliminary results from one of the projects were shared with the NYS Smart Grid Consortium.

**Table 5-5. Status of Public Benefit Power T&D Research Program Projects by Solicitation**

	Number of SBC-funded Projects Approved	Number of Signed Active Contracts	Number of Unsigned Contracts	Number of Withdrawn or Terminated Contracts	Number of Completed Projects
PON 1102 (2 rounds)	15	13	1	1	0
PON 1208 (2 rounds)	16a	11	2	1	0

a One contract was withdrawn, one was incorporated into another existing contract; and one has been redesigned and funded with non-SBC resources.

This past quarter, progress was made in the following areas:

- Contracting of projects, and
- The program's third solicitation, PON 1913 "Smart Grid Program" was released on June 14th, 2010 and will have three due dates: September 9, 2010, March 10, 2011, and August 4, 2011. Some projects from this solicitation will be funded through the Regional Greenhouse Gas Initiative (RGGI) Program.

## 5.4 Clean Energy Infrastructure

### 5.4.1 Progress Toward Goals

The Clean Energy Technology Manufacturing and Business Development programs significantly increased the number of companies developing and manufacturing clean energy technologies and serving the clean energy businesses in New York, increasing from 22 in 2008 to 67 in 2010. During the previous first quarter of 2010, support for manufacturing expansion companies grew by one company, or by another 14% since 2009, and support for related businesses grew by six companies, or by another 11% since 2009.

In the Education, Consumer Awareness, and Market Development programs, there are currently 39 training partners around the state, including the four training institutions with accreditation: Bronx Community College for PV, Hudson Valley Community College for PV, SUNY Delhi for PV, and SUNY Farmingdale for PV.

Currently, a total of 230 installers are eligible<sup>3</sup> to participate in NYSERDA's PV incentive program, including 59 NABCEP certified individuals.

Several non-energy goals have been set for the Clean Energy Infrastructure Program. These five-year goals, as well as cumulative performance through March 2010 are shown in Table 5-6. The Program is performing well with respect to its goals.

**Table 5-6. Clean Energy Infrastructure Program Goals achieved from July 1, 2006 through June 30, 2010**

Activity	Program Goals (July 1, 2006 through June 30, 2011)		Achieved July 1, 2006 through June 30, 2010	% of Goal Achieved
Education, Consumer Awareness, and Market Development				
New accredited training institutions	3	Self-sustaining accredited training and certification programs for clean energy technologies in addition to PV	4	>100%
New certification exams	5		3	60%
Training workshops <sup>a</sup>	25		27a	>100%

<sup>3</sup> Specifically, 177 are eligible and 53 have provisional status.

Activity	Program Goals (July 1, 2006 through June 30, 2011)		Achieved July 1, 2006 through June 30, 2010	% of Goal Achieved
Renewable Resource Applications				
Stakeholder workshops	7	Addressing knowledge and technical barriers currently impeding installation and operation of wholesale and end-use clean energy technologies	13	>100%
Competitive research solicitations	5		14	>100%
Clean Energy Technology Manufacturing and Business Development				
Companies expanding renewable business networks	25	Increase the number of companies developing and manufacturing clean energy technologies, and serving the clean energy businesses in New York	59	100%
Companies expanding manufacturing	10b		8	80%

a This program goal does not include the many clean energy renewable and efficiency training workshops throughout the state held by NYSERDA's training partners.

b With regard to the goal to help expand 10 clean energy manufacturers in New York, the program now anticipates reaching nine out of 10 by June 30, 2011 based on experience to date and available funds.

#### 5.4.2 Clean Energy Generation

The installation of PV and small wind is now part of the Renewable Portfolio Standard (RPS) program and the information in this section reflects the installations prior to the transition to the RPS. Table 5-7 shows the cumulative annual clean generation from the Clean Energy Infrastructure Program. A realization rate and net-to-gross ratio is applied to adjust the program-reported generation based on the most recent Measurement and Verification and Attribution evaluation studies. Net clean generation in the rightmost column is the "total savings" being claimed by the program after these evaluation activities.

**Table 5-7. Clean Energy Infrastructure Program Cumulative Annual Clean Generation (through transition of Program to RPS in 2008)**

	Program-Reported Savings	Realization Rate	Adjusted Gross Energy Generations	Net-to-Gross Ratio	Net Energy Generation
End Use Renewables					
MWh/year	5,930	1.04	6,167	1.0	6,167
MW On-Peak	4.2	0.85	3.6	1.0	3.6
Wholesale Renewables					
MWh/year	99,995	1.0	99,995	1.0	99,995
MW On-Peak	6.2	1.0	6.2	1.0	6.2
Clean Energy Totals					
MWh/year	105,925	N/A	106,162	N/A	106,162
MW On-Peak	10.4	N/A	9.8	N/A	9.8

N/A – Not Applicable



## 5.5 Power Systems Product Development

### 5.5.1 Progress Toward Goals

Several long-term non-energy goals have been set for the Power Systems Product Development Program. Goals and accomplishments are shown in Table 5-8. The program is performing well with respect to its goals.

**Table 5-8. Power Systems Product Development Program Goals achieved from July 1, 2006 through June 30, 2010**

Activity	Program Goals (July 1, 2006 through June 30, 2011)	Achieved July 1, 2006 through June 30, 2010	% of Goal Achieved
Number of contracts signed between July 1, 2006 through June 30, 2011	75	119	>100%
New products launched between July 1, 2006 through June 30, 2011a	5	12	>100%
Sales revenue from new products launched between July 1, 2006 through June 30, 2011a	\$50 million	TBD	TBD
Number of completed field demonstrations between July 1, 2006 through June 30, 2010a	15	10	67%
Number of technology assessment studies funded between July 1, 2006 through June 30, 2010	20	24	>100%

a Includes results from projects funded prior to July 1, 2006.

Other milestones include:

- Ener-G-Rotors, developer of the 5 KW generator powered by waste heat, was presented with an award at the Cleantech Forum XXI for “Most Promising Technology” for the overall design of their devices that turn low temperature heat into electricity, opening up new markets in waste heat, solar thermal and geothermal installations. NYSERDA has funded \$1.6 million toward this effort from inception, and the company has recently moved to a new facility that will accommodate development and testing of a larger unit.
- Twenty-five proposals were selected for funding last quarter, including funding for projects in solar, energy storage, wind, fuel cell, and kinetic hydropower. Kinetic hydropower uses the force of moving water to generate power without the use of dams, which increases the number of potential generation sites. Previous work with Verdant Power has proven the feasibility of the technology. Verdant Power has developed at least 19 patents as a result of their work.
- Work has continued on the first-of-its-kind energy storage project using flywheels for grid scale frequency regulation. Plant construction is on schedule. This quarter, crews have finished setting

all 100 concrete flywheel housings (foundations) including four electronics containers, four pump houses and a pad mount transformer in the North section of the plant. Civil work continues on the south section, with the installation of concrete flywheel housings and foundations for supporting systems. All 200 concrete flywheel housings are on site and flywheel installation is scheduled to start in late July. The 20 MW plant is located in Stephentown, NY.

## 5.6 DG-CHP Demonstration

### 5.6.1 Progress Toward Goals

Two important non-energy goals have been set for the DG-CHP Program. These five-year goals and progress are shown in Table 5-9. The program is making good progress toward achieving its long-term goals.

**Table 5-9. DG-CHP Demonstration Program Near-Term Goals**

Activity	Program Goals (July 1, 2006 through June 30, 2011)	Achieved July 1, 2006 through June 30, 2010	% of Goal Achieved
Issue annual solicitations and incentive offers	Fund 50 or more CHP demonstrations with a cumulative capacity of 100 MW and associated efficiency and environmental benefits, and with 50 MW downstate.	PON 984 was issued in September 2006. Sixteen projects were awarded and nine have resulted in projects. PON 1043 was issued in June 2006. Six CHP demonstration projects resulted, one of which has since dropped out. PON 1178 was issued in October 2007. Five CHP demonstration projects resulted. PON1241 was issued in August 2008 with three due dates (August 14, 2008, December 11, 2008 and April 16, 2009) Twenty-two demonstration projects resulted, four of which have dropped out.	74% (Number of projects funded)
Technology transfer	Conduct technology transfer and outreach activities to broaden acceptance of DG and CHP. Hold annual workshops and publish at least 10 final reports per year.	Currently, site-specific performance data is posted on <a href="http://chp.nyserda.org">http://chp.nyserda.org</a> for 36 projects. A U.S. Environmental Protection Agency (EPA) CHP Partnership meeting was held in October 2009 and NYSERDA sponsored a CHP Roundtable. CHP Programs Brochure has been developed and is distributed at appropriate conferences.	N/A

This past quarter, three contracts were signed and three projects became operational. Also, NYSERDA renewed the contract with CDH Energy to manage the CHP Data Integrator Website [chp.nyserda.org](http://chp.nyserda.org).

### 5.6.2 Energy, Peak Demand and Fuel Savings

Table 5-10 shows the cumulative annual energy and peak demand savings from the DG-CHP Program. A realization rate and net-to-gross ratio are applied to adjust the program-reported savings based on the most recent Measurement and Verification and Attribution evaluation studies. Net savings in the rightmost column are the total savings being claimed by the program after these evaluation activities.

**Table 5-10. DG-CHP Cumulative Annual Energy and Peak Demand Savings (through June 30, 2010)**

	Program-Reported Savings	Realization Rate	Adjusted Gross Savings	Freerider-ship	Spillover	Net-to-Gross Ratio <sup>1</sup>	Net Savings <sup>3</sup>
MWh/year	394,853	0.90	355,629	15%	26%	1.07	367,225
MW	86.2	0.98	84.4	15%	26%	1.07	87.6
MMBtu/year <sup>2</sup>	-3,576,452	0.88	-3,241,807	15%	26%	1.07	-3,360,602

<sup>1</sup> Net-to-Gross Ratio = (1-Freeridership) \* (1+Spillover).

<sup>2</sup> This table shows the negative natural gas impacts from DG-CHP demonstration projects due to an increase in on-site gas use resulting from project operations. Although other R&D programs results in positive natural gas impacts, these impacts are not verified, and therefore not reported here.

<sup>3</sup> Net savings reflect separate adjustments made to projects included in the 2009 Largest Energy Savers evaluation.

Because the electricity saved by the DG-CHP projects replaces electricity formerly purchased from the grid, the program has reduced fuel used at central generating stations, for a net decrease statewide due to greater efficiency of the DG-CHP systems at sites where imported fuel is used. The fuel avoided at the central generating plant is determined from the electricity generated by the DG-CHP installations. Furthermore, at additional projects, such as wastewater treatment plants, electricity generation is powered fully or partially by digester gas produced on site. Such fuel switching achieves natural gas conservation above and beyond what is achieved through efficiency alone.

## 5.7 Demand Response and Innovative Rate Research

### 5.7.1 Progress Toward Goals

Two long-term non-energy goals have been set for the Demand Response and Innovative Rate Research Program. These five-year goals and progress are shown in Table 5-11.

**Table 5-11. Demand Response and Innovative Rate Research Program – Goals and Achievements**

Goal	Achieved (July 1, 2006 through June 30, 2011)	% of Goal Achieved
Increase small customer participation in wholesale and local demand response programs (100 MW)	1 MW	1%
Increase the number of multifamily apartment units participating in real-time and other time-sensitive electric rate pilots (3,000 apartment units)	5,330 units participating in the demonstration	>100%

Activities associated with the goal of increasing small customer participation in demand response programs include the following:

- Two rounds of PON 1151 “Innovations in Demand Response, Load Management and Dynamic Rates” resulted in two signed contracts to date, with three more contracts under negotiation.
- Completed Phase I of a project to demonstrate wireless fleet-managed window air conditioners (WAC) at Pratt University. Phase II will deploy 247 additional WACs. This fleet will be managed remotely and will be registered in the NYISO’s SCR-ICAP program.
- Demonstrated a load shed ballast for linear fluorescent lighting, capable of shedding 30% of lighting load in New York City.
- Demonstrated a tool to simplify identification of demand response opportunities in schools and other building types. A free web-based version of the tool was made accessible to the public.
- Demonstrated a bundled service (electric service and load reduction) by a competitive electric service provider.

### **5.7.2 Energy, Peak Demand and Fuel Savings**

Table 5-12 shows the cumulative annual energy and peak demand savings from a predecessor program of Demand Response and Innovative Rate Research Program. A realization rate and net-to-gross ratio are applied to adjust the program reported savings based on the most recent Measurement and Verification and Attribution evaluation studies. Net savings in the rightmost column are the total savings being claimed by the program after these evaluation activities.

Enabling Technology was a research and development program that sought innovative ways of aggregating, dispatching and reporting demand response. Projects were selected in part for their ability to demonstrate and commercialize new methods of aggregating load. The program did not require maintenance of the enabled demand reduction. Enabled demand reduction is a potential quantity that may or may not translate into curtailed load in response to a New York Independent System Operator call for emergency resources. These factors contribute to the low realization rate (0.50) shown in Table 5-12.

**Table 5-12. Demand Response and Innovative Rate Research Program Cumulative Annual Energy and Peak Demand Savings through June 30, 2010**

	<b>Program- Reported Savings</b>	<b>Realization Rate</b>	<b>Adjusted Gross Savings</b>	<b>Net-to-Gross Ratio</b>	<b>Net Savings</b>
Enabled MW	208.3	0.50	104.2	0.95	99.0

## 5.8 Electric Transportation

### 5.8.1 Progress Toward Goals

The ultimate goals of the Electric Transportation Program are to:

- Improve the energy efficiency of the New York's current electrically powered commuter rail and subway system in the New York City load pocket, and
- Reduce costs of power transmission by allowing unused off-peak capacity to generate revenue and reduce transportation petroleum use, greenhouse gases, and air emissions.

As shown in Table 5-13, five metrics are being monitored for the Electric Transportation Program. The Program has approved 45 projects for funding.

**Table 5-13. Electric Transportation Program Goals achieved from July 1, 2006 through June 30, 2010**

Activity	Achievements from July 1, 2006 through June 30, 2010
Solicitations released	11 released, 2 open
Proposals reviewed	71
Projects funded	32 awarded, 24 contracted
Funding for contracted projects	\$4.836 million
Customer co-funding of contracted projects	\$8.425 million

During the second quarter of 2010:

- Wayside energy storage for the New York has moved forward with two energy storage projects. A 300 kW trackside battery system was successfully tested at Rockaway rail station. The battery will store extra power generated from the train's braking system, using the power for to assist in the train's acceleration. The battery will be moved to a higher traffic station on 53<sup>rd</sup> Street as testing develops.
- A 1MW capacitor system, which also stores energy from moving trains, has been successfully tested in laboratories and will be deployed into service in the coming months.

## 5.9 Environmental Monitoring, Evaluation, and Protection

### 5.9.1 Recent Program Accomplishments

Table 5-14 shows the Environmental Monitoring, Evaluation, and Protection Program (EMEP) accomplishments toward its five-year goals. In general, the program is performing well with respect to its goals.

**Table 5-14. Environmental Monitoring, Evaluation, and Protection Program Goals achieved from July 1, 2006 through June 30, 2010**

Activity	Program Goals (July 1, 2006 through June 30, 2011)	Achieved July 1, 2006 through June 30, 2010	% of Goal Achieved
Develop detailed multi-year EMEP research plan with input from policymakers, scientists, and stakeholders	Complete EMEP research plan and update research plan as needed to ensure relevancy	Four meetings were held to develop EMEP's research plan, attended variously by EMEP Advisors and other state and nationally recognized policy and scientific experts. The New York Academy of Sciences assisted in developing the plan, which was released in September 2007. The Alternative Energy section was updated in 2008 with impacts of wind power development on wildlife in NYS.	N/A
Develop, contract, and manage research projects aimed at priority energy-related environmental research areas	<ul style="list-style-type: none"> <li>- Issue six to 10 solicitations</li> <li>- Contract 40 projects</li> <li>- Leverage \$20 million into New York, help build a knowledge-based research infrastructure in New York</li> </ul>	Nine solicitations have been issued to fund sequestration, renewable energy impacts, ecosystems, air quality, and climate change projects. Fifty-seven projects have been contracted, leveraging over \$9.8 million in outside co-funding.	90-100% of solicitation goal >100% of projects goal 49% of leveraged funds goal
Sponsor workshops, conferences, and seminars	five to 10	<p>EMEP has co-sponsored or hosted:</p> <p>Three workshops to create a northeast soil-monitoring network.</p> <p>A seminar/webinar for multiple agency staff on Intergovernmental Panel on Climate Change findings.</p> <p>Three Adirondack Research Consortium conferences.</p> <p>Two conferences at MIT's Endicott House.</p> <p>Four two-day biennial conferences on Linking Science and Policy in Albany.</p> <p>A workshop at Columbia University on offshore carbon sequestration.</p> <p>The American Response to Climate Change conference held in Tupper Lake in 2008.</p> <p>An Emissions Inventory Workshop in November 2008.</p>	>100%
Provide web-based EMEP data and information	200,000 total customer visits, inquiries, and downloads to the EMEP website	EMEP websites had 170,000 hits during this period, totalling 327,000 hits and more than 63,000 downloads since inception.	>100%
Publish NYSERDA research reports	40	Twenty-three research reports and five summaries were published, including one on RGGI emission allowance auction.	58%
Publish peer-reviewed journal articles	100	Articles published include: 19 on Air Quality/Health Effects, 39 on Ecosystems, two on Climate Change, and five crosscutting research articles.	65%

Activity	Program Goals (July 1, 2006 through June 30, 2011)	Achieved July 1, 2006 through June 30, 2010	% of Goal Achieved
Provide briefings to decision makers	15	Briefings were held with: environmental stakeholders on EMEP (three day-long sessions); policymakers on wind and wildlife; DEC Climate Change Program Director on EMEP; DEC staff on carbonaceous fine particle issues; NYSDOT's climate change and energy efficiency team on EMEP; DEC and the Governor's Office on the environmental impacts of liquid biofuels (2); the ISO-NE Environmental Advisory Group on multi-pollutant policy; EPA and the National Assoc. of Clean Air Agencies on multi-pollutant policy; and an EMEP research contractor testified on mercury exposure to the NYS Assembly.	93%

### 5.9.2 Long-Term Program Accomplishments

Under SBC I and II, \$21 million in NYSERDA funds were used to support 46 EMEP research projects and an additional \$22 million in funding was leveraged. More than 125 peer-reviewed papers were published on EMEP findings and EMEP research was cited 655 times in peer-reviewed journals. More than 80 organizations were involved in EMEP research projects, and EMEP fostered collaboration with scientists in 13 different countries to address New York's environmental issues. Several advanced pollution measuring devices were developed and commercialized. EMEP's web page has received a total of 327,000 hits since its inception in 2005. Most importantly, EMEP research was cited as providing the scientific basis for several important environmental policies in air quality and health advisories.

EMEP's accomplishments since inception were documented as part of a peer review value/cost assessment conducted in 2006. Highlights from this assessment as well as others since then include:

- Environmental monitoring data were collected from hundreds of field sites in New York to support program goals.
- Monitoring research projects such as the EMEP-funded NY Supersite are used to evaluate the reliability of air-quality modeling planning tools.
- Several hundred articles have been published in peer-reviewed journals.
- EMEP-supported researchers have often briefed State and federal policymakers.
- EMEP research has affected energy-related policy at the State level, including: the Adirondack Lakes Survey Corporation's (ALSC) Long-Term Monitoring project and the Adirondack Cooperative Loon Project that were used to support the technical rationale for New York's Acid Deposition Reduction Program.
- EMEP mercury research has helped justify the need for a NYS rule for mercury control from power plants; and revealed the extent of mercury contamination in fish in NYS resulting in significant changes in fish consumption advisories issued by the NYS Department of Health.

- EMEP research provided the scientific foundation for development of a PM<sub>2.5</sub> State Implementation Plan (SIP) affecting fossil fuel combustion facilities in New York.

EMEP research has also affected federal policy, such as:

- EMEP research was cited by EPA to support its technical evaluation of the Clean Air Act Amendments of 1990 and the Clean Air Interstate Rule.
- EMEP's "Western Adirondack Stream Survey" project was cited in EPA's 2008 Acid Rain Program report as the foundation for conclusions about the extent and impacts of stream acidification in the western Adirondack Mountain region.
- The NYS DOH recommended that EPA consider EMEP's findings on the effects of SO<sub>2</sub> exposure on asthma in its review of the SO<sub>2</sub> National Ambient Air Quality Standard (NAAQS).
- EMEP data supported the court decision to strike down the trading component of the Clean Air Mercury Rule, which could have produced biological mercury "hotspots."
- EMEP data on fine particle emissions from stationary natural gas combustion were used to update the National Emissions Inventory, the basis for state and federal air quality management plans.
- EMEP research on PM<sub>2.5</sub> speciation and PM precursors from the Supersite programs were used by EPA in the Transportation Conformity Rule Amendments for the New PM<sub>2.5</sub> NAAQS: PM<sub>2.5</sub> Precursors.
- EMEP supported development of the Fluid Dynamic Measurement System (FDMS) for the semi-continuous measurement of fine particles and EPA approved the use of FDMS by State and local air monitoring agencies. In addition California has adopted FDMS as an approved sampler method.
- EMEP-funded ozone and PM research is central to EPA's science and policy approach to address long-range transport, the need for long-term modeling for SIPs, and how models are to be used for making policy.
- EMEP research was used to update the EPA's guidance on eight-hour ozone NAAQS, and in EPA's technical rationale for the Final Clean Air Interstate Rule: Air Quality Modeling.
- EMEP research advanced the concept of an "airshed" for ozone and PM management, a concept is now endorsed by the National Academy of Science for states to consider in their regulations.

### **5.9.3 EMEP Process Evaluation**

A process evaluation was completed by Research into Action in 2010 of the information transfer component of NYSERDA's EMEP, which has been part of the **New York Energy \$mart<sup>SM</sup>** Program since 1999. EMEP supports research to increase the scientific understanding of the environmental effects of electricity generation. Specifically, EMEP's mission is to fund research initiatives that will increase the understanding and awareness of the environmental impacts of energy choices and emerging energy options, and provide a scientific technical foundation for formulating effective, equitable, energy-related environmental policies and resource management practices. In carrying out its mission, EMEP seeks to



identify information needs and research gaps related to electricity-related environmental issues relevant to New York.

The process evaluation specifically sought to understand how EMEP information products are perceived and how they are used by several key contact populations. As part of this effort, the research team also sought to identify areas where EMEP could improve the access, usability, and/or relevance of the information products that flow from the program-sponsored research.

This evaluation drew on data collected from five populations that have come into contact with the EMEP program. In-depth interviews were conducted with key contacts expected to be most familiar with the program: program staff, members of the program's two Advisory Groups – the Science Advisory Group and the Program Advisory Group, and researchers who had received funding from EMEP. Individuals who attended an EMEP conference and people on the program's primary contact list were also surveyed.

The following section describes high-level findings of the EMEP process study. The full process evaluation report is available by request and will soon be posted on NYSERDA's website.

### **Findings**

The process evaluation found that EMEP provides a unique funding opportunity for scientists who can link their research to broader public policy goals and that the program's structure encourages researchers to consider the policy implications of their work. EMEP's focus on linking science with policy sets the program apart from other organizations that fund similar research and leaves the program with two distinct audiences, scientists and policymakers. Both audiences view the program positively.

There are several important areas where EMEP is meeting the expectations of its key contacts and providing value to the research community. Specifically, this evaluation research found:

- Widespread belief that the program is effective in bridging the communication gap between scientific research and policy decisions and that EMEP's focus on connecting scientific research to policy sets the program apart from other sources of research funding.
- The EMEP conference is valued for the opportunity to bring scientists and policy staff together to discuss the policy implications of scientific findings. The conference is considered unique for its focus on this goal.
- Scientific researchers value the funding opportunity—particularly those researchers whose work fits within EMEP's niche: those focusing on environmental issues within the State of New York.
- EMEP's research findings are relevant to scientists and considered of comparable quality to research findings produced by much larger, federal funding organizations. While it is difficult to attribute policy outcomes to any single piece of scientific research, contacts reported that policymakers are aware of EMEP's research, and advisors, researchers, and program staff members cited a variety of examples in which the program had played a role in policy formation.

### **Researcher Satisfaction**

Interviews with researchers revealed broad satisfaction with the quality of the project management and the respect for the commitment of those involved to ensure the funded research is of the highest quality and linked to public policy discussions.

Researchers also reported EMEP's project management approach is more structured than that of other funders and that the program has more stringent reporting requirements. In some cases, the quarterly status reports were considered burdensome to researchers because scientific research does not necessarily generate notable findings in a three-month period, especially early in a project. On the other hand, some researchers credited the program structure for fostering focused attention on a discrete research end. Ultimately, the solicitation's compatibility with research interests is more important than the administrative and reporting requirement burdens attached to funding.

### **Perception of Value**

A cost/value analysis found that all of the products resulting from EMEP-funded research are valued in certain ways. Researchers displayed a clear preference for research presented in peer-reviewed journals<sup>4</sup>; however, other key program contacts and non-research professionals reported finding value in all of the other products that flow from EMEP research, including the final reports.

A citation analysis completed by Thompson Reuters as part of this evaluation project found that articles referencing work sponsored by EMEP were cited 2,784 times between 1999 and 2009. It is important to note that the program-provided list used to generate the citation analysis contained 254 products, and that Thompson was able to match 154 of the 254 records in their Web of Science® database indicating that this analysis represents the *minimum level* intellectual reach of EMEP-sponsored research.

### **Appropriate Deliverables**

EMEP's information products and outreach efforts target diverse audiences and meet the needs of each of these audiences. High-level policymakers and political staff members require succinct summaries of scientific information placed in a policy context. Government employees that write and defend environmental regulations require more detailed discussions of research projects and the limitations of these projects. Reaching the academic and scientific community requires that projects be referenced in peer-reviewed journals—the most credible information source for these stakeholders.

EMEP attempts to meet the diverse expectations of constituents by distributing information a variety of ways. Reports and conference information are posted on the Program's website, newsletters and conference registration materials are provided through the postal service and through a listserv. The program often requires researchers to submit articles to peer-reviewed journals for publication, and, when appropriate opportunities arise, researchers also present the results of their work directly to decision-makers through workshops or testimony to legislative committees. The submittal of articles for publication in journals is clearly the best method for reaching the academic and scientific research community; however, this deliverable is the least controlled by the program. There is no assurance that articles submitted will be published or that the scope of the article will mirror NYSERDA's priorities.

### **Information on Cost**

One of the tasks of this evaluation effort was to assess the cost and value associated with each of the program's research products. Value was estimated by analyzing qualitative and quantitative responses to questions about preference and importance. Costs estimates were obtained from the Scope of Work for

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<sup>4</sup> Peer-reviewed journals are academic journals that use a peer-review process in which a group of experts evaluates a submitted article. These reviewers decide whether to approve an article for publication, and may suggest changes for the author to address before an article is approved. Often, this review process is anonymous, with neither reviewer nor author aware of the other's identity.

the marketing subcontractor and from interviews with researchers required to meet the information transfer product expectations. One component of cost, the time and resources allocated by researchers to produce final reports, journal articles and conference presentations was not available from the research project Scopes of Work reviewed, since the costs are typically allocated to a person, not a task. Capturing this data, even if only for a year or two, could give program staff members better information about the portion of total research dollars requested that is allocated to meeting EMEP reporting requirements. This information could be used calculate an estimate of effort associated with the expected deliverables, and could illuminate any debate about expectations established for future projects.

### **Conclusions and Recommendations**

This evaluation revealed no major problems with the EMEP program. The recommendations listed here represent potential opportunities for improvement to EMEP's outreach and information transfer goals.

#### **Multiple Collaboration Methods can Best Support Outreach and Information Transfer Goals**

**Conclusion:** Multiple methods of collaboration are needed for effective outreach. Interviews with researchers revealed that many value peer-to-peer contact as a preferred source of information. This contact can occur at conferences, by phone, or through e-mail communication. The scopes of work developed for each project list numerous research staff members in addition to the principal investigator and lead researchers. Outreach to researchers could be expanded by adding all research staff members on a project to the program's contact lists and listserv. These lists can be invited to events (including conferences and webinars) and sent links to documents on the EMEP website.

**Recommendation:** Program staff members should focus on networking as an outreach activity and encourage others involved in the program to provide information about the program directly to their peers. EMEP staff members could facilitate this by making sure that these key program contacts know what the program has available and how to direct people to find it.

#### **The Final Reports are Important Products and Serve Multiple Purposes**

**Conclusion:** The final reports remain an important deliverable for NYSERDA. While contacts from numerous organizations articulated the preeminence of publication in peer-reviewed journals for scientists, the final reports represent several aspects important for the effectiveness of EMEP.

Final reports are used by the outreach staff members and subcontractors to develop numerous other products, such as executive summaries, topical primers, technical summaries, meta-analyses, and project updates. As described in subsequent sections of this report, these products are important for communicating with the program's non-technical and policy audience. Final reports are also easily posted on the program's website and can be accessed, free, by any interested party, as opposed to journal articles that are only available for a fee. Finally, these documents represent the core product NYSERDA is purchasing with its funding. They document the methodology and findings of a given project and indicate that project managers at NYSERDA are ensuring that SBC funds are well-spent.

**Recommendation:** Continue to require that EMEP researchers submit a final report that is appropriate for the project, the scope of which will vary on a case by case basis.

#### **Opportunities Exist to Clarify and Streamline the Review Process of Final Reports**

**Conclusion:** While final reports are valuable for NYSERDA and inform other outreach efforts, they are not necessarily given the same credibility as peer-reviewed journals because the larger scientific

community is not aware of the rigor of the review process that EMEP's final reports undergo. Although it is important to retain the quality of the final reports, the program may be able to reduce the burden placed on authoring scientists by clarifying or simplifying the review process associated with finalizing these documents. Defining expectations and describing the review process, particularly for researchers new to NYSERDA, will help ensure that researchers are prepared for the number and scope of comments and revisions.

**Recommendation:** Consider strategies for simplifying the review process associated with finalizing reports when indicated by project characteristics. Material that has already been prepared for and published in a peer-reviewed journal or reports that are adding to information in previous reports could benefit from a more streamlined review process. Multi-disciplinary projects or those presenting entirely new information may require more substantive review.

**Recommendation:** Regardless of the level of technical review or the number of reviewers, project managers should continue to be alert for opportunities to collect and summarize comments; to minimize the number of document revisions; and ensure that each successive review is providing marginal improvement sufficient to justify the time required of the researcher and NYSERDA staff.

#### Researchers do not Differentiate Between Invoicing Reports and Progress Reports

**Conclusion:** While EMEP's reporting requirements are not turning researchers away from the program—compatibility with researcher interest is more important than the administrative requirements attached to the funding—researchers noted that projects may not generate sufficient findings to justify a quarterly report, especially early in the project. Staff members distinguish between quarterly reports with an administrative focus, designed to help the program ensure that a project is progressing at a pace consistent with its spending, and less frequent reports that describe the pace and findings of specific projects. Researchers unaccustomed to working as contractors stated that EMEP's quarterly reporting requirements can be burdensome. Milestone reports, completed upon reaching pre-determined points in the research process, may be more intuitive for researchers than quarterly reports because these reports will contain a more technical focus than reports required for invoices.

**Recommendation:** Define the purpose of quarterly reports and what NYSERDA expects these reports to contain and consider ways to facilitate the quarterly reporting process for researchers, recognizing that they may not be accustomed to tracking budgets and research progress in this way.

**Recommendation:** Consider milestone reports and payments rather than quarterly reports if appropriate given the anticipated workflow associated with individual research projects.

#### Advisory Group Members have Differing Views of their Role and Responsibilities

**Conclusion:** EMEP draws on advice from two advisory groups in planning research and reviewing the results of projects the program funds. The 11 members of the Program Advisory Group represent state and local government agencies, advocacy organizations, and other research organizations. The seven members of the Science Advisory Group come from academic institutions and other research organizations.

Some advisors would like an expanded role in the program, while others sought a more defined role for advisory group members. As the program's research interests have expanded, it has become more difficult for advisors to possess expertise in every issue on which the program funds research.

The increasingly limited role of the advisory groups may result from the lack of a formal definition of the groups' roles. The advisory groups developed organically to meet the needs of the program and, thus, have no charter or other document specifying exactly what the advisory groups should or should not do. There is no formal definition on how the two advisory groups are expected to interact with each other and with other parts of the program in deciding which proposals to fund. The process for selecting new advisory group members may not be understood. Similarly, reasons for changes in the composition of the advisory groups are not transparent in all cases.

**Recommendation:** Consider a facilitated meeting with advisors to create a statement of focus or mission and otherwise clarify their role and what the program expects of them.

**Recommendation:** Clarify for advisors NYSERDA's expectations for dissemination of results, document review tasks, and promotion of EMEP efforts.

### There are Opportunities to Improve Constituent Tracking

**Conclusion:** The program currently maintains multiple lists with overlapping populations and duplicate records. For example, there are separate conference attendee lists for each of three conferences, with different mixtures of contact information (phone, e-mail, address, affiliation). The past and current researchers list contains names and email addresses only. The list of 240 listserv recipients has no accompanying contact information. Regardless of the challenges for evaluation research, the overall state of the contact lists indicate the program should consider combining the multiple lists into a single program contact database capable of tracking the extent to which contacts are associated with the program and the level of information they currently receive. The constituent mailing list is an important program resource that includes NYSERDA staff members, advisory group members, government stakeholders, and researchers, as well as thousands of interested professionals.

**Recommendation:** Improvements in constituent tracking would be valuable for implementing improvements to EMEP's overall outreach strategy. Program staff members should ensure that a comprehensive constituent tracking system to support the program's outreach effort is part of the current marketing database development process.

## 5.10 Industrial Process and Product Innovation Program

### 5.10.1 Progress Toward Goals

The Industrial Process and Product Innovation (IPPI) Program offers funding for projects that result in energy benefits to New York's industrial sector. The program attracts a wide range of projects that make industrial processes better, faster, and cheaper; thus strengthening New York's economy. Although the projects are diverse, a common theme at this time is the development of processes that fabricate ceramic and composite materials faster and are less energy intensive. Examples include microwave curing, laser-assisted chemical vapor deposition, process intensification, and laser machining. Projects funded through the program target energy saving during processing as well as products that save energy, such as light-weight composites applicable to the transportation industry. For example, Rensselaer Polytechnic Institute is working with a firm to develop a faster and more energy-efficient forming process to make carbon-fiber aeronautical composites.

Table 5-15 shows long-term goals and progress for the Program. The Program is making excellent progress with regard to the first goal. The second and third goals are being monitored over the longer-term.

**Table 5-15. Industrial Process & Product Innovation Program – SBC III Goals and Achievements**

Activity	Program Goals (July 1, 2006 through June 30, 2011)	Achieved from July 1, 2006 through June 30, 2010	% of Goal Achieved
Issue annual solicitations	Fund 30 to 40 cost-shared projects	Total of 59 projects approved for funding	>100%
Technology transfer	Conduct technology transfer and outreach activities to broaden the acceptance of successful technologies and technical approaches via participation in at least two workshops.  Publish final reports as projects are completed.	<u>2008:</u> 1 Open house 1 Trade journal article 1 Press release 1 Excellence award <u>2009:</u> 2 Site tours 4 Conference papers/presentations 1 Trade journal article 3 Training sessions	N/A
Program metrics	Projects supported during the SBC III period are expected to result in cumulative annual energy savings of \$5 million, and project-related sales of \$10 million.	1 Patent pending 1 Feasibility study completed 1 Technology demonstration 1 Process design	N/A

As shown in Table 5-16, 59 projects (from various NYSEDA solicitations) have been approved for funding. At this time, there are 34 signed contracts that are active and seven projects have been completed.

**Table 5-16. Status of IPPI Projects by Solicitation**

	Number of SBC-funded Projects Approved	Number of Signed Active Contracts	Number of Unsigned Contracts	Number of Terminated Contracts	Number of Completed Projects
PON 998: Industrial Process & Productivity Improvement <sup>1</sup>	11a	4	0	6	1
PON 1130: Industrial Research, Development and Demonstration <sup>2</sup>	13	10	0	0	3
PON 1190: Industrial Process & Product Innovation <sup>3</sup>	15	12	0	1	2
PON 1206: Data Center and Server Efficiency <sup>4</sup>	2	2	0	0	0
PON 1236: Energy Productivity in Innovative Local Food Production Systems <sup>5</sup>	3	1	2	0	0
PON 1276: Industrial Process and Product Innovation <sup>6</sup>	14	5	7	2	0
Other <sup>7</sup>	1	0	0	0	1
<b>Total</b>	<b>59</b>	<b>34</b>	<b>9</b>	<b>9</b>	<b>7</b>

a Five projects were terminated after NYSERDA approval.

<sup>1</sup>PON 998 was issued with two rounds of due dates (June 8, and October 5, 2006), with total funding of \$4 million.

<sup>2</sup>PON 1130 was issued with three rounds of due dates (March 28, July 16, and November 8, 2007), with total funding exceeding \$5.7 million.

<sup>3</sup>PON 1190 was issued in November 2007 with three rounds of due dates (March 5, July 2, and November 5, 2008) with total funding of \$5.5 million.

<sup>4</sup>PON 1206 was issued with two rounds of due dates (May 1, 2008, November 13, 2008) with total funding of \$3 million.

<sup>5</sup>PON 1236 was issued with two rounds of due dates (October 2, 2008, January 8, 2009) with total funding of \$1.5 million.

<sup>6</sup>PON 1276 was issued with two rounds of due dates (April 22, 2009, Sept. 22, 2009) with total funding of \$2.75 million.

<sup>7</sup> Represents one purchase order for Agriculture Worksheets.

Table 5-17 is a distribution of contracted projects by type. This past quarter, the IPPI Program signed three contracts and completed one project.

**Table 5-17. IPPI by Project Type (July 1, 2006 to June 30, 2010)**

	Number of Projects Encumbered	Funds Encumbered (\$Million)
Research Studies (feasibility studies, market assessments, etc.)	17	\$1.18
Process Improvement Demonstrations	14	\$4.22
Product Development	9	\$2.63
<b>Total</b>	<b>40</b>	<b>\$8.03</b>

## 5.11 Municipal Water and Wastewater Efficiency

### 5.11.1 Recent Program Accomplishments

Several five-year goals have been set for the Municipal Water and Wastewater Efficiency Program. Since July 1, 2006, the Program has been making good progress toward all of its long-term goals as are shown in Table 5-18.

**Table 5-18. Municipal Water and Wastewater Efficiency Program SBC III Goals and Achievements**

Activity	Program Goals (July 1, 2006 through June 30, 2011)	Achievements from July 1, 2006 through June 30, 2010	% of Goal Achieved
Issue annual solicitation	Select and fund 25 or more projects.  Provide assistance to a minimum of 25 municipal wastewater and water treatment facilities.	PON 1040 (2006) funded two projects using SBC funds, which directly affect three facilities in the near term.  PON 1171 (2008) is funding four projects using SBC funds, which directly affect three facilities in the near term.  These projects ultimately provide long-term benefits to host-site facilities and widespread applicability throughout the MWWT sector.  A PON to be issued in late summer 2010 is under development.	24%
Technology transfer	Provide critical information to 1,000 individuals serving the municipal wastewater and water treatment sector in New York on ways to optimize energy use at municipal wastewater and water treatment facilities.	<u>2006</u> : Four presentations (part of the Water and Sewer Infrastructure conferences) attracted about 300 individuals. A presentation was given as part of a webcast hosted by the Comptroller's Office. A two-day energy management training, co-developed by Global Energy Partners and the NY Water Environment Association (NYWEA), was attended by about 70 municipal operators and officials, consultants, and engineers. <u>2007</u> : Twenty wastewater treatment plants were submetered, evaluations completed, and results posted online. Four presentations, as part of the NY Co-funding for Water and Sewer Infrastructure conferences, attracted about 300 individuals. NYWEA published an Energy Management issue of <i>Clearwaters</i> . <u>2008</u> : Ten presentations attracting about 550 individuals were given to diverse audiences, including then-Congresswoman Gillebrand's constituency, NYWEA's annual and spring conferences, officials in White Plains, AWWA's spring and annual meetings, the Genesee/Finger Lakes Regional Planning Commission's summer conference, and the Adirondack Research Consortium's annual meeting.	100%
		<u>2009</u> : A presentation at the Greater Buffalo Environmental Conference, sponsored by the Western NY Section of NYWEA attracted about 120 individuals. <u>2010</u> : A web-based presentation as part of the EPA's Combined Heat and Power Partnership outreach program attracted about 100 individuals. <u>On-going</u> : The Energy Smart Focus program is providing customized services to support energy efficiency in the sector, offering outreach materials and training to individuals associated with the sector statewide.	
Energy and cost savings		See paragraph below (Section 5.11.3) for explanation of progress.	



Activity	Program Goals (July 1, 2006 through June 30, 2011)	Achievements from July 1, 2006 through June 30, 2010	% of Goal Achieved
Technical Assistance	Develop, review and approve 30 projects	From July 2006 through June 2010, 17 projects were begun, of which four will be underway in 2010. The total cost is \$392,381.	57%

### 5.11.2 Long-Term Program Accomplishments

Through June 30, 2010, \$4.32 million has been committed under the Municipal Water and Wastewater Program. In the TA program, a total of \$1.546 million has been awarded for municipal water/wastewater projects, representing an increase of \$93,381 in 2010. Table 5-19 summarizes the funding status of the programs.

**Table 5-19. Project and Funding Status through June 30, 2010<sup>1</sup>**

	Number of Projects Approved	Funds Awarded (\$ million)	Co-funding (\$ million)
RFP 769 Energy Efficiency Improvements at Water & Wastewater Treatment Plants	1	\$0.13	\$0.05
RFP 601 (Submetering) <sup>2</sup>	2	\$1.1	\$0.4
Demonstration Projects (569, 786, 857, 935, 1040, 1171)	16	\$2.99	\$4.09
Technical Assistance <sup>3</sup>	89	\$1.546	\$1.546
Technology Transfer	1	\$0.1	\$0.1

<sup>1</sup> Table does not include metrics on the Energy Smart Focus PON

<sup>2</sup> Funded in part under the general Technical Assistance Program

<sup>3</sup> Funded under the general Technical Assistance Program

### 5.11.3 Program Impact Evaluation

#### **Energy Savings**

On average, these projects take five to seven years from conception to implementation. Still, once implementation is complete, the 19<sup>5</sup> projects should lead to nearly 46,385 MWh of electricity savings and 16,157 kW of peak demand reduction. Depending on the effectiveness of information dissemination from knowledge created, the potential exists for substantial MWh savings and demand reductions due to replication across the broader New York municipal water/wastewater market sector.

<sup>5</sup> These 19 projects are comprised of the submetering, demonstration and technology transfer project shown in the previous table.

## 5.12 Next Generation and Emerging Technologies

### 5.12.1 Progress Toward Goals

Several long-term goals have been set for the Next Generation and Emerging Technologies Program. These five-year goals and progress are shown in Table 5-20. Overall, the Program is making good progress toward achieving its long-term goals.

**Table 5-20. Next Generation and Emerging Technologies Program – Goals and Achievements**

Activity	Program Goals (July 1, 2006 through June 30, 2011)	Achievements (July 1, 2006 through March 31, 2010)	% of Goal Achieved
<b>Advanced Building Program</b>	Two solicitations  Two or more demonstration test beds	Seven solicitations completed. Twenty-two projects are contracted consisting of seven feasibility studies, eight product development projects, and seven demonstrations.  The advanced building solicitations have explored building systems such as whole-house ventilation, compression-less air conditioning, window improvements, and micro-CHP.  Under PON 1096: Demonstration of High Performance Residential Homes, four teams were formed to design, build, and demonstrate high-performance residential homes to illustrate the importance of tight building envelopes and improved construction practices.	>100% of solicitations goal  >100% of demo beds goal
<b>Daylighting Applications</b>	50-100 design assistance projects  Five daylighting implementations in buildings	Eighteen clients have received daylighting design assistance services.  One daylighting implementation project is underway.	18-36 % of the design assistance goal  20% of the daylighting goal
<b>Solar Thermal Applications</b>	Two solicitations  Five demonstrations	One solicitation, PON 1085: Solar Thermal Demonstrations	50% of the solicitations goal  >40% of the goal for demonstration projects
<b>Emerging Technologies</b>	Five solicitations  25 product development projects	Four solicitations completed to date. One issued in winter of 2010 (not completed).  Solicitations have funded a wide variety of product development and demonstrations of end-use technologies including thermo-photovoltaic applications, micro-CHP, solid copper rotor electric motors, high-efficiency billboard displays, and solar thermal air conditioning.  Fourteen product development projects are underway.	>100% of the solicitations goal  56% of the projects goal

During this past quarter, the first round of PON 1772: Next Generation Emerging Technologies for End-Use Efficiency received 24 proposals, requesting total funding of approximately \$8 million. Two more contracts have been signed for the Advanced Buildings Program and one more client has received daylighting design assistance services.

Shown in Table 5-21 is the number of signed contracts by activity area. A total of 69 projects have been contracted.

**Table 5-21. Status of Next Gen Projects by Solicitation**

	Number of Signed Active Contracts	Number of Unsigned Contracts	Number of Completed Projects
<b>Advanced Building Program</b>			
RFP 1032: Reference Design Guidebook.	1	0	1
PON 1062: Advanced Building Envelopes and Energy Systems.	2	0	2
PON 1126 (2 rounds): Next Generation Technologies for Residential Buildings.	7	0	0
PON 1096: Demonstration of High Performance Residential Homes	1	0	0
PON 1215 (2 rounds): Next Generation and Emerging Technologies for Residential Buildings.	7	1	0
PON 1232: Emerging Insulation Practices for Existing Residential Buildings Pilot	1	0	0
PON 1294: Emerging Technologies for Residential Buildings	3	1	0
<b>Daylighting Applications</b>			
PON 1079: Daylight Technical Services, Training and Demonstrations.	3	0	0
RFP 1068: Establishment of a Lighting Incubator Center to Support Lighting Start-up Companies in New York (to be housed at the Saratoga Technology + Energy Park® (STEP®))	1	0	0
PON 1122: Innovation in Lighting: New Products, Demonstrations, and Testing.	4	0	0
PON 1207: Solid State Lighting Research and Demonstration was released for the first time.	5	0	0
<b>Solar Thermal Applications</b>			
PON 1085: Solar Thermal Demonstrations.	2	0	0
<b>Emerging Technologies</b>			
PON 1031 (2 rounds): Advanced Sensors & Controls for Energy Management, Power Quality & Electricity System Reliability.	5	0	0
PON 1105 (2 rounds): Next Generation Emerging Technologies	15	1	0
PON 1164 (2 rounds): Advanced Sensors and Controls for Building and Industrial Applications	3	0	0
PON 1206 (2 rounds): Data Centers & Server Efficiency was released for the first time.	9	0	0
PON 1772 Next Generation Emerging Technologies for End-Use Efficiency. Issued in Winter 2010; review in process.	-	-	-



# APPENDIX A: Narrative and Metrics Reporting on EEPS Programs

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This appendix provides a compilation of the Energy Efficiency Portfolio Standard (EEPS) Program quarterly narrative and scorecard progress updates required by the Department of Public Service (DPS) in its June 29, 2009 *Energy Efficiency Program Information Reporting Manual*.<sup>1</sup>

## ALL EEPS PROGRAMS (ELECTRIC AND GAS)

This section includes program progress and spending for all of NYSERDA's electric-and gas-funded EEPS programs. Table A-1 displays the electric and gas savings achieved in this quarter, and progress toward the quarterly goals for all of the EEPS programs. An overarching narrative report is not provided for the entire program; please refer to the individual program summaries within this Appendix A for the narrative updates.

**Table A-1. NYSERDA EEPS Program Scorecard June 30, 2010**

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA
Program Name	All EEPS Programs Total
Program Type <sup>2</sup>	All NYSERDA
Total Acquired First-Year Impacts This Month <sup>3</sup>	
Net first-year annual kWh acquired this month <sup>4</sup>	143,574,064
Monthly Net kWh Goal (based on net first-year <i>annual</i> <sup>5</sup> kWh Goal)	158,157,750
Percent of Monthly Net kWh Goal Acquired	90.8%
Net Peak <sup>6</sup> kW acquired this month	19,238
Monthly Net Peak kW Goal	-
Percent of Monthly Peak kW Goal Acquired	0.0%
Net First-year annual therms acquired this month	372,999

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<sup>1</sup>New York Department of Public Service, *Energy Efficiency Program Information Reporting Manual*, June 29, 2009.

<b>Program Administrator (PA) and Program ID<sup>1</sup></b>	<b>NYSERDA</b>
<b>Program Name</b>	<b>All EEPS Programs Total</b>
<b>Program Type<sup>2</sup></b>	<b>All NYSERDA</b>
Monthly Net Therm Goal	2,178,804
Percent of Monthly Therm Goal Acquired	17.1%
Net Lifecycle kWh acquired this month	2,148,647,304
Net Lifecycle therms acquired this month	5,940,174
Net Other Monthly Savings (MMBTUs) Acquired	
Coal	-
Kerosene	-
Oil	-
Propane	-
Total Acquired Net First-Year Impacts To Date	
Net first-year annual kWh acquired to date	348,377,971
Net first-year annual kWh acquired to date as a percent of annual goal	55.1%
Net first-year annual kWh acquired to date as a percent of 8-year goal	12.9%
Net cumulative first-year annual kWh acquired to date	340,360,395
Net utility kW reductions acquired to date	45,125
Net utility peak kW reductions acquired to date as a percent of utility annual goal	0.0%
Net utility peak kW reductions acquired to date as a percent of 8-year goal	0.0%
Net NYISO peak kW reductions acquired to date	41,674
Net first-year annual therms acquired to date	372,999
Net first-year annual therms acquired to date as a percent of annual goal	4.3%
Net first-year annual therms acquired to date as a percent of 8-year goal	1.1%
Net cumulative therms acquired to date	372,999
Total Acquired Lifecycle Impacts To Date <sup>7</sup>	
Net Lifecycle kWh acquired to date	5,197,089,240
Net Lifecycle therms acquired to date	5,940,174

<b>Program Administrator (PA) and Program ID<sup>1</sup></b>	<b>NYSERDA</b>
<b>Program Name</b>	<b>All EEPS Programs Total</b>
<b>Program Type<sup>2</sup></b>	<b>All NYSERDA</b>
Committed <sup>8</sup> Impacts (not yet acquired) This Month	
Net First-year annual kWh committed this month	79,315,472
Net Lifecycle kWh committed this month	1,210,040,103
Net Utility Peak kW committed this month	12,509
Net first-year annual therms committed this month	335,800
Net Lifecycle therms committed this month	6,008,886
Funds committed at this point in time	44,516,922
Overall Impacts (Acquired & Committed)	
Net first-year annual kWh acquired & committed this month	222,889,536
Net utility peak kW acquired & committed this month	31,747
Net First-year annual therms acquired & committed this month	708,799
Costs <sup>9</sup>	
Total program budget	447,050,512
General Administration	4,267,656
Program Planning	-
Program Marketing	1,597,748
Trade Ally Training	1,193,569
Incentives and Services	5,553,510
Direct Program Implementation	1,728,283
Evaluation	335,771
Total expenditures to date	38,773,974
Percent of total budget spent to date	8.7%
Participation	
Number of program applications received to date	24,229
Number of program applications <i>processed</i> to date <sup>10</sup>	15,340
Number of processed applications <i>approved</i> to date <sup>11</sup>	10,981
Percent of applications received to date that have been processed	63.3%
Carbon Emission Reductions (in tons)	

<b>Program Administrator (PA) and Program ID<sup>1</sup></b>	<b>NYSERDA</b>
<b>Program Name</b>	<b>All EEPS Programs Total</b>
<b>Program Type<sup>2</sup></b>	<b>All NYSERDA</b>
Total Acquired Net First-Year Carbon Emission Reductions To Date	185,257
Total Acquired Cumulative Net Carbon Emission Reductions To Date	181,176

**NOTES:**

<sup>1</sup>DPS Staff needs to work with utilities to develop a Program ID naming convention. However, a Program ID number is not required for the first report. Note that when developing program ID naming conventions, utilities would like to minimize computer programming/reporting costs that they might incur if the proposed naming conventions are complex or the utility's current naming conventions require modification to Staff's proposed format.

<sup>2</sup>There is not currently a consistent list of program types but individual categories for common use by administrators could be developed.

<sup>3</sup>First-year savings are defined as the annual savings expected from a given measure in the first year after installation. The annual savings are sometimes the result of annualizing estimated savings that are based on data that cover less than one year. Acquired kWh savings are defined as those savings reported by the program administrator in program tracking databases and for which a rebate check has been sent to the participant on a specific date.

<sup>4</sup>Regardless of the month in which a measure is installed within a given calendar year, the program is credited with the associated savings for the entire year.

<sup>5</sup>Program Administrators should make best estimate of the annual goal even though the goal might in some cases cover two calendar years. Also, Staff wants administrators to try to be as accurate as possible in determining the *monthly* goals but does not want to mandate monthly goals, at least initially.

<sup>6</sup> Peak is defined uniquely for each utility.

<sup>7</sup>The lifecycle savings are tracked beginning in the *year* in which a given measure was installed. Over the period 2008-2015, PAs must take into account the fact that savings from measures installed early in the period will vanish at the end of their useful lives before the end of 2015. Thus, the lifecycle impacts acquired to date will be different for each month as a function of adding savings from measures installed in a given month and subtracting savings from measures installed earlier in the funding cycle that have reached the end of their useful lives.

<sup>8</sup> Committed savings are defined as those for which funds have been encumbered but not yet spent. When the funds are spent (*i.e.*, a rebate check has been sent to the participant on a specific date), the savings are then considered "acquired." Staff would like to see the program administrator's best *estimate* of what they have committed. There should be some assumptions on how the administrator does that. Program administrators should forecast as accurately as possible and it should get more precise with program experience, *e.g.*, the difference between achieved and committed should get closer over time.

<sup>9</sup>These are the budget categories to be used by companies when submitting the required energy efficiency program implementation plans. In its January 16, 2010 Order, the Commission directed Staff to provide definitions for the budget categories to be used in the preparation of these plans (See Order Approving "Fast Track" Utility-Administered Electric Energy Efficiency Program With Modification, at page 11). These categories are provided to promote consistency in budget construction and reporting among the utility plans.

Companies should include a "description of expenditures within each category" (See Order Approving "Fast Track" Utility-Administered Electric Energy Efficiency Program With Modification, at page 11) and separately quantify each item within each category. These expenditures must include and identify all direct and indirect costs attributable to each program category. Companies must provide the basis of allocation for all indirect costs.

Companies should identify whether each cost item is to be recovered through the SBC surcharge, base rates, or other recovery mechanism (*e.g.*, monthly adjustment charges).

<sup>10</sup>An application is processed once the PA has reviewed the application and made a decision whether to approve the incentive payment to the customer. Once the decision has been made to pay the incentive to the customer, these funds and their associated energy and demand impacts become "Committed."

<sup>11</sup>The application is approved once the decision has been made to pay the incentive to the customer. Note that these funds and their associated energy and demand impacts become "Committed" once this decision is made. Also note that for programs in which there are cases where an application could be received, processed, and approved all in one day, then a "1" would be counted for each step in the tracking lifecycle.



## EXISTING FACILITIES PROGRAM (ELECTRIC AND GAS)

### *Program Description and Background*

#### **1. Program Status**

##### **Program Performance Goals**

(a) Describe and discuss circumstances that may have an impact on the achievement of project performance goals (positive or negative).

- The State and national economies have experienced a dramatic downturn in the time since the NYSERDA Fast Track proposal to the June 23, 2008 Order and to the March 13, 2009 Supplemental Revision to the System Benefits Charge (SBC) Operating Plan.
- A recent Commission Order provides Investor Owned Utilities the authority to run incentive programs that directly overlap with Existing Facilities Program (EFP) and could cause confusion in the marketplace.

(b) Describe and discuss other key aspects of program performance goals that were not discussed in (a).

None

(c) Provide updates to the forecast of net energy and demand impacts. The forecast should be updated at least annually. Note and explain any discrepancies between the filed program goal and the latest forecast.

None

## **2. Program Implementation Activities**

### **(a) Marketing Activities**

- Key elements of the Existing Facilities Marketing Plan were incorporated into the Existing Facilities Public Service Commission (PSC) compliance filing, which was submitted on December 22, 2009. The plan outlined key marketing initiatives and budget details for the 2010-2011 timeframe.
- Fieldwork for Commercial/Industrial (C/I) Quantitative Benchmark research is complete. An analysis of findings is scheduled for July. Research findings will help confirm messaging and inform communications plans based on approved DPS program marketing plans.
- Contracts to secure full-service marketing partners to help implement bolstered marketing activities are nearing completion. A mini-bid to select contractor for EEPS C&I integrated communications plan development and implementation will follow.
- Individual meetings held were with Lutron Electronics, Inc.; Orion Energy (lighting manufacturer and lighting contractor); Ecology & Environment, LLC (ESCO); CREE (LED manufacturer); and the New York Medical College. The meetings covered program updates, current and future projects, upcoming program offerings, and how technologies of interest to the various groups may integrate with EFP.
- Individual presentations took place at Brooklyn Chamber of Commerce; Lime Energy (ESCO); and the 2010 Green Building Energy Conference. Staff presentations included information on EFP and how it related to the interests of the various groups.

### **(b) Evaluation Activities**

- Evaluation activities for the EEPS component of the EFP will match activities described in the detailed EFP Evaluation, Measurement and Verification Plan (EM&V) approved by DPS for the SBC component. The detailed evaluation plan for this program will be revised to incorporate EEPS funding and will be resubmitted for approval by DPS.

### **(c) Other Activities**

None

## **3. Customer Complaints and/or Disputes**

None

## **4. Changes to Subcontractors or Staffing**

None

## **5. Additional Issues**

None

### Progress Toward EEPS Goals

This section includes program progress and spending for the electric-funded Existing Facilities Program. Table A-2 below displays the Existing Facilities Program electric savings achieved in this quarter, and progress toward the quarterly goal.

Currently, there are no gas program impacts to report.

**Table A-2. Existing Facilities Program Scorecard June 30, 2010**

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA	NYSERDA
Program Name	Existing Facilities-Electric	Existing Facilities-Gas
Program Type <sup>2</sup>	Business and Institutional	Business and Institutional
Total Acquired First-Year Impacts This Month <sup>3</sup>		
Net first-year annual kWh acquired this month <sup>4</sup>	8,536,572	-
Monthly Net kWh Goal (based on net first-year <i>annual</i> <sup>5</sup> kWh Goal)	3,047,750	-
Percent of Monthly Net kWh Goal Acquired	280.1%	0.0%
Net Peak <sup>6</sup> kW acquired this month	2,295	-
Monthly Net Peak kW Goal	-	-
Percent of Monthly Peak kW Goal Acquired	0.0%	0.0%
Net First-year annual therms acquired this month	-	-
Monthly Net Therm Goal	-	23,993
Percent of Monthly Therm Goal Acquired	0.0%	0.0%
Net Lifecycle kWh acquired this month	128,048,576	-
Net Lifecycle therms acquired this month	-	-
Net Other Monthly Savings (MMBtus) Acquired		
Coal	-	-
Kerosene	-	-

<b>Program Administrator (PA) and Program ID<sup>1</sup></b>	<b>NYSERDA</b>	<b>NYSERDA</b>
<b>Program Name</b>	<b>Existing Facilities-Electric</b>	<b>Existing Facilities-Gas</b>
<b>Program Type<sup>2</sup></b>	<b>Business and Institutional</b>	<b>Business and Institutional</b>
Oil	-	-
Propane	-	-
Total Acquired Net First-Year Impacts To Date		
Net first-year annual kWh acquired to date	8,536,572	-
Net first-year annual kWh acquired to date as a percent of annual goal	70.0%	0.0%
Net first-year annual kWh acquired to date as a percent of 8-year goal	5.8%	0.0%
Net cumulative first-year annual kWh acquired to date	8,536,572	-
Net utility kW reductions acquired to date	2,295	-
Net utility peak kW reductions acquired to date as a percent of utility annual goal	0.0%	0.0%
Net utility peak kW reductions acquired to date as a percent of 8-year goal	0.0%	0.0%
Net NYISO peak kW reductions acquired to date	-	-
Net first-year annual therms acquired to date	-	-
Net first-year annual therms acquired to date as a percent of annual goal	0.0%	0.0%
Net first-year annual therms acquired to date as a percent of 8-year goal	0.0%	0.0%
Net cumulative therms acquired to date	-	-
Total Acquired Lifecycle Impacts To Date <sup>7</sup>		
Net Lifecycle kWh acquired to date	128,048,576	-
Net Lifecycle therms acquired to date	-	-
Committed <sup>8</sup> Impacts (not yet acquired) This Month		
Net First-year annual kWh committed this month	20,356,978	-
Net Lifecycle kWh committed this month	305,354,667	-
Net Utility Peak kW committed this month	5,261	-
Net first-year annual therms committed this month	-	80,623
Net Lifecycle therms committed this month	-	1,209,344
Funds committed at this point in time	3,250,234	203,445

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA	NYSERDA
Program Name	Existing Facilities-Electric	Existing Facilities-Gas
Program Type <sup>2</sup>	Business and Institutional	Business and Institutional
Overall Impacts (Acquired & Committed)		
Net first-year annual kWh acquired & committed this month	28,893,550	-
Net utility peak kW acquired & committed this month	7,556	-
Net First-year annual therms acquired & committed this month	-	80,623
Costs <sup>9</sup>		
Total program budget	30,890,298	4,539,966
General Administration	365,780	26,347
Program Planning	-	-
Program Marketing	-	-
Trade Ally Training	-	-
Incentives and Services	840,501	-
Direct Program Implementation	16,868	-
Evaluation	2,032	2,032
Total expenditures to date	1,520,903	63,865
Percent of total budget spent to date	4.9%	1.4%
Participation		
Number of program applications received to date	480	-
Number of program applications <i>processed</i> to date <sup>10</sup>	52	2
Number of processed applications <i>approved</i> to date <sup>11</sup>	389	-
Percent of applications received to date that have been processed	10.8%	0.0%
Carbon Emission Reductions (in tons)		
Total Acquired Net First-Year Carbon Emission Reductions To Date	4,661	-
Total Acquired Cumulative Net Carbon Emission Reductions To Date	4,661	-

**NOTES:** Please refer to the notes following Table A-1.

## NEW CONSTRUCTION PROGRAM

### Program Description and Background

#### 1. Program Status

##### Program Performance Goals

- (a) Describe and discuss circumstances that may have an impact on the achievement of project performance goals (positive or negative).
- The State and national economies have experienced a dramatic downturn in the time since the NYSERDA Fast Track proposal to the June 23, 2008 Order and to the March 13, 2009 Supplemental Revision to the SBC Operating Plan.
  - Newly planned or accelerated upgrades to New York City, New York State and federal energy codes, standards, regulations and executive orders have been identified since the 2007 NYSERDA Fast Track proposal, the June 23, 2008 Order and the March 13, 2009 Supplemental Revision to the SBC Operating Plan.
- (b) Describe and discuss other key aspects of program performance goals that were not discussed in (a).

Of the 483 applications received to date for electric energy savings, 57 projects have been cancelled. The remaining 426 projects represent 67 million square feet in new construction and major renovation activity.

- (c) Provide updates to the forecast of net energy and demand impacts. The forecast should be updated at least annually. Note and explain any discrepancies between the filed program goal and the latest forecast.

None

#### 2. Program Implementation Activities

**This section is designed to quantify major activities not captured in the progress spreadsheet.**

##### (a) Marketing Activities

- Fieldwork for Commercial/Industrial Quantitative Benchmark study was completed in May. This survey was conducted among C/I end-user NYSERDA customers and prospects. An analysis of findings was conducted in July. Research findings will help confirm messaging and inform communications plans based on approved DPS program marketing plans.
- Contracts to secure full-service marketing partners to help implement bolstered marketing activities are nearing completion. A mini-bid to select a contractor for EEPs C&I integrated communications plan development and implementation will follow.

The following are highlights of current EEPS Outreach activities conducted over the quarter:

- Outreach Project Consultants (OPCs) followed up on leads for 253 projects. Three leads were referred to other programs.
- OPCs and staff attended 52 events with a total estimated audience of 1,684 attendees, including developers, commercial real estate owners and managers, design teams, architects, engineers, and community officials.
- NYSERDA presented Cornell with a High Performance Building Plaque in recognition of the energy efficient measures the University incorporated into its recently completed Life Sciences building.
- NYSERDA presented Sukyo Mahikari Centers for Spiritual Development a High Performance Building Plaque for its new building, modeled to be 39% more efficient than the NYS Energy Conservation Construction Code. The recipient is also pursuing LEED Silver certification for the building.
- Co-presented High Performance Building Plaque, along with State Senator James L. Seward, to the Foothills Performing Arts Theater, Inc., in recognition of energy efficient measures incorporated into the new performing arts theater that will help cut its energy costs by more than \$65,000 per year.

(b) Evaluation Activities

- As described in its Detailed Evaluation Plan for this program, NYSERDA collectively evaluates both **New York Energy \$mart<sup>SM</sup>** and EEPS-funded projects. As evaluation activities commence, particularly for impact evaluation, **New York Energy \$mart<sup>SM</sup>**-funded projects will be in the majority of projects sampled. However, as EEPS-funded projects are completed, they will then be incorporated into NYSERDA's evaluation efforts.
- The impact evaluation team submitted draft design firm and owner surveys to program staff and DPS for review in May. In addition, the process evaluation team continued its primary data collection with OPCs and TAs in, and received approval on, its participant and partial participating interview guides.
- The impact evaluation team began developing its NCP M&V plan in June. In addition, the process evaluation team continued its primary data collection with program participants.

(c) Other Activities

List and describe major accomplishments not captured in either the spreadsheet or this report. Describe work activities in quantitative and qualitative terms.

None

**3. Customer Complaints and/or Disputes**

Describe any customer disputes or complaints and how they have been resolved.

None

**4. Changes to Subcontractors or Staffing**

Describe any staff or subcontractor/consultant changes.

Proposals for RFP 1523 were due March 1, 2010. Response to the RFP was very good, and the Technical Evaluation Panel met at the end of March to select the winning bidders.

**5. Additional Issues**

None to report.



### ***Progress Toward EEPS Goals***

This section includes program progress and spending for the electric-funded New Construction Program. Once NYSERDA's compliance filing for the gas-funded NCP is approved, these tables will incorporate those impacts as well.

**Table A-3. New Construction Program Scorecard June 30, 2010**

<b>Program Administrator (PA) and Program ID<sup>1</sup></b>	<b>NYSERDA</b>	<b>NYSERDA</b>
<b>Program Name</b>	<b>New Commercial Buildings Program</b>	<b>High Performance New Construction</b>
<b>Program Type<sup>2</sup></b>	<b>Business and Institutional</b>	<b>Business and Institutional</b>
Total Acquired First-Year Impacts This Month <sup>3</sup>		
Net first-year annual kWh acquired this month <sup>4</sup>	453,116	-
Monthly Net kWh Goal (based on net first-year <i>annual</i> <sup>5</sup> kWh Goal)	7,408,250	-
Percent of Monthly Net kWh Goal Acquired	6.1%	0.0%
Net Peak <sup>6</sup> kW acquired this month	148	-
Monthly Net Peak kW Goal	-	-
Percent of Monthly Peak kW Goal Acquired	0.0%	0.0%
Net First-year annual therms acquired this month	-	-
Monthly Net Therm Goal	-	75,173
Percent of Monthly Therm Goal Acquired	0.0%	0.0%
Net Lifecycle kWh acquired this month	6,796,742	-
Net Lifecycle therms acquired this month	-	-
Net Other Monthly Savings (MMBtus) Acquired		
Coal	-	-
Kerosene	-	-
Oil	-	-
Propane	-	-

<b>Program Administrator (PA) and Program ID<sup>1</sup></b>	<b>NYSERDA</b>	<b>NYSERDA</b>
<b>Program Name</b>	<b>New Commercial Buildings Program</b>	<b>High Performance New Construction</b>
<b>Program Type<sup>2</sup></b>	<b>Business and Institutional</b>	<b>Business and Institutional</b>
Total Acquired Net First-Year Impacts To Date		
Net first-year annual kWh acquired to date	2,862,600	-
Net first-year annual kWh acquired to date as a percent of annual goal	9.7%	0.0%
Net first-year annual kWh acquired to date as a percent of 8-year goal	1.0%	0.0%
Net cumulative first-year annual kWh acquired to date	2,862,600	-
Net utility kW reductions acquired to date	339	-
Net utility peak kW reductions acquired to date as a percent of utility annual goal	0.0%	0.0%
Net utility peak kW reductions acquired to date as a percent of 8-year goal	0.0%	0.0%
Net NYISO peak kW reductions acquired to date	-	-
Net first-year annual therms acquired to date	-	-
Net first-year annual therms acquired to date as a percent of annual goal	0.0%	0.0%
Net first-year annual therms acquired to date as a percent of 8-year goal	0.0%	0.0%
Net cumulative therms acquired to date	-	-
Total Acquired Lifecycle Impacts To Date <sup>7</sup>		
Net Lifecycle kWh acquired to date	42,939,005	-
Net Lifecycle therms acquired to date	-	-
Committed <sup>8</sup> Impacts (not yet acquired) This Month		
Net First-year annual kWh committed this month	12,481,187	-
Net Lifecycle kWh committed this month	187,217,806	-
Net Utility Peak kW committed this month	3,264	-
Net first-year annual therms committed this month	-	-
Net Lifecycle therms committed this month	-	-
Funds committed at this point in time	6,215,150	-
Overall Impacts (Acquired & Committed)		
Net first-year annual kWh acquired & committed this month	12,934,303	-
Net utility peak kW acquired & committed this month	3,411	-

<b>Program Administrator (PA) and Program ID<sup>1</sup></b>	<b>NYSERDA</b>	<b>NYSERDA</b>
<b>Program Name</b>	<b>New Commercial Buildings Program</b>	<b>High Performance New Construction</b>
<b>Program Type<sup>2</sup></b>	<b>Business and Institutional</b>	<b>Business and Institutional</b>
Net First-year annual therms acquired & committed this month	-	-
Costs <sup>9</sup>		
Total program budget	71,282,442	4,247,800
General Administration	889,193	8,408
Program Planning	-	-
Program Marketing	6,717	-
Trade Ally Training	138,233	-
Incentives and Services	112,473	-
Direct Program Implementation	381,757	-
Evaluation	16,313	-
Total expenditures to date	5,011,155	14,549
Percent of total budget spent to date	7.0%	0.3%
Participation		
Number of program applications received to date	483	-
Number of program applications <i>processed</i> to date <sup>10</sup>	50	-
Number of processed applications <i>approved</i> to date <sup>11</sup>	11	-
Percent of applications received to date that have been processed	10.4%	0.0%
Carbon Emission Reductions (in tons)		
Total Acquired Net First-Year Carbon Emission Reductions To Date	1,563	-
Total Acquired Cumulative Net Carbon Emission Reductions To Date	1,563	-

**NOTES:** Please refer to the notes following Table A-1.

## **FLEXIBLE TECHNICAL ASSISTANCE PROGRAM (ELECTRIC AND GAS)**

### *Program Description and Background*

#### **1. Program Status**

##### **Program Performance Goals**

- (a) Describe and discuss circumstances that may have an impact on the achievement of project performance goals (positive or negative).
- The state and national economies have experienced a dramatic downturn in the time period from the NYSERDA Fast Track proposal, to the June 23, 2008 Order, and to the March 13, 2009 Supplemental Revision to the SBC Operating Plan.
- (b) Describe and discuss other key aspects of program performance goals that were not discussed in (a).
- N/A
- (c) Provide updates to the forecast of net energy and demand impacts. The forecast should be updated at least annually. Note and explain any discrepancies between the filed program goal and the latest forecast.
- N/A

#### **2. Program Implementation Activities**

- (a) Marketing Activities
- Fieldwork for the Commercial/Industrial (C/I) Quantitative Benchmark research has been completed. An analysis of findings was conducted in July. Research findings will help confirm messaging and inform communications plans based on approved DPS program marketing plans.
  - Contracts to secure full-service marketing partners to help implement bolstered marketing activities are nearing completion. A mini-bid to select contractor for EEPS C&I integrated communications plan development and implementation will follow.
- (b) Evaluation Activities
- As described in its Detailed Evaluation Plan for this program, NYSERDA collectively evaluates both **New York Energy \$mart<sup>SM</sup>** and EEPS-funded projects. As evaluation activities commence, particularly for impact evaluation, **New York Energy \$mart<sup>SM</sup>**-funded projects will be in the majority of projects sampled. However, as EEPS-funded projects are completed, they will then be incorporated into NYSERDA's evaluation efforts.
  - The Impact Evaluation team continued its Measure Adoption Rate data collection in June and had completed 60% of its data collection by the end of the month. In addition, the Market

Characterization and Assessment (MCA) team began pretesting its nonparticipant building owner survey and continued developing its sample frames.

- Evaluation activities for the EEPS gas component of the Flexible Technical (FlexTech) Assistance Program will match activities described in the detailed FlexTech Program EM&V Plan approved by DPS for the SBC and EEPS Fast Track components. NYSERDA is in the process of updating this detailed evaluation plan to incorporate EEPS gas funding and will submit it to DPS for review in the coming months.

(c) Other Activities

N/A

### 3. Customer Complaints and/or Disputes

None to report.

### 4. Changes to Subcontractors or Staffing

None to report.

### 5. Additional Issues

None to report.

### *Progress Toward EEPS Goals*

This section includes program progress and spending for the gas and electric-funded FlexTech Program.

**Table A-4. FlexTech Program Scorecard June 30, 2010**

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA	NYSERDA
Program Name	Flexible Technical (FlexTech) Assistance Program - Electric	Flexible Technical (FlexTech) Assistance Program- Gas
Program Type <sup>2</sup>	Business and Institutional	Business and Institutional
Total Acquired First-Year Impacts This Month <sup>3</sup>		
Net first-year annual kWh acquired this month <sup>4</sup>	-	-
Monthly Net kWh Goal (based on net first-year <i>annual</i> <sup>5</sup> kWh Goal)	5,878,750	-
Percent of Monthly Net kWh Goal Acquired	0.0%	0.0%
Net Peak <sup>6</sup> kW acquired this month	-	-

<b>Program Administrator (PA) and Program ID<sup>1</sup></b>	<b>NYSERDA</b>	<b>NYSERDA</b>
<b>Program Name</b>	<b>Flexible Technical (FlexTech) Assistance Program - Electric</b>	<b>Flexible Technical (FlexTech) Assistance Program- Gas</b>
<b>Program Type<sup>2</sup></b>	<b>Business and Institutional</b>	<b>Business and Institutional</b>
Monthly Net Peak kW Goal	-	-
Percent of Monthly Peak kW Goal Acquired	0.0%	0.0%
Net First-year annual therms acquired this month	-	-
Monthly Net Therm Goal	-	22,498
Percent of Monthly Therm Goal Acquired	0.0%	0.0%
Net Lifecycle kWh acquired this month	-	-
Net Lifecycle therms acquired this month	-	-
Net Other Monthly Savings (MMBtus) Acquired		
Coal	-	-
Kerosene	-	-
Oil	-	-
Propane	-	-
Total Acquired Net First-Year Impacts To Date		
Net first-year annual kWh acquired to date	-	-
Net first-year annual kWh acquired to date as a percent of annual goal	0.0%	0.0%
Net first-year annual kWh acquired to date as a percent of 8-year goal	0.0%	0.0%
Net cumulative first-year annual kWh acquired to date	-	-
Net utility kW reductions acquired to date	-	-
Net utility peak kW reductions acquired to date as a percent of utility annual goal	0.0%	0.0%
Net utility peak kW reductions acquired to date as a percent of 8-year goal	0.0%	0.0%
Net NYISO peak kW reductions acquired to date	-	-

<b>Program Administrator (PA) and Program ID<sup>1</sup></b>	<b>NYSERDA</b>	<b>NYSERDA</b>
<b>Program Name</b>	<b>Flexible Technical (FlexTech) Assistance Program - Electric</b>	<b>Flexible Technical (FlexTech) Assistance Program- Gas</b>
<b>Program Type<sup>2</sup></b>	<b>Business and Institutional</b>	<b>Business and Institutional</b>
Net first-year annual therms acquired to date	-	-
Net first-year annual therms acquired to date as a percent of annual goal	0.0%	0.0%
Net first-year annual therms acquired to date as a percent of 8-year goal	0.0%	0.0%
Net cumulative therms acquired to date	-	-
Total Acquired Lifecycle Impacts To Date <sup>7</sup>		
Net Lifecycle kWh acquired to date	-	-
Net Lifecycle therms acquired to date	-	-
Committed <sup>8</sup> Impacts (not yet acquired) This Month		
Net First-year annual kWh committed this month	21,104,153	-
Net Lifecycle kWh committed this month	(337,666,450)	-
Net Utility Peak kW committed this month	3,911	-
Net first-year annual therms committed this month	-	152,330
Net Lifecycle therms committed this month	-	3,046,590
Funds committed at this point in time	3,323,130	80,149
Overall Impacts (Acquired & Committed)		
Net first-year annual kWh acquired & committed this month	21,104,153	-
Net utility peak kW acquired & committed this month	3,911	-
Net First-year annual therms acquired & committed this month	-	152,330
Costs <sup>9</sup>		
Total program budget	16,886,688	1,843,964
General Administration	317,722	69,904
Program Planning	-	-
Program Marketing	-	-

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA	NYSERDA
Program Name	Flexible Technical (FlexTech) Assistance Program - Electric	Flexible Technical (FlexTech) Assistance Program- Gas
Program Type <sup>2</sup>	Business and Institutional	Business and Institutional
Trade Ally Training	-	-
Incentives and Services	578,176	10,647
Direct Program Implementation	42,038	906
Evaluation	24,439	2,032
Total expenditures to date	2,784,478	153,610
Percent of total budget spent to date	16.5%	8.3%
Participation		
Number of program applications received to date	193	15
Number of program applications <i>processed</i> to date <sup>10</sup>	193	15
Number of processed applications <i>approved</i> to date <sup>11</sup>	155	10
Percent of applications received to date that have been processed	100.0%	100.0%
Carbon Emission Reductions (in tons)		
Total Acquired Net First-Year Carbon Emission Reductions To Date	-	-
Total Acquired Cumulative Net Carbon Emission Reductions To Date	-	-

NOTES: Please refer to the notes following Table A-1.

## INDUSTRIAL AND PROCESS EFFICIENCY PROGRAM (ELECTRIC and GAS)

### *Program Description and Background*

#### 1. Program Status

##### Program Performance Goals

(a) Describe and discuss circumstances that may have an impact on the achievement of project performance goals (positive or negative).

- The State and national economies have experienced a dramatic downturn in the time period from the NYSERDA Fast Track proposal, to the June 23, 2008 Order, and to the March 13, 2009 Supplemental Revision to the SBC Operating Plan.



- (b) Describe and discuss other key aspects of program performance goals that were not discussed in (a).

N/A

- (c) Provide updates to the forecast of net energy and demand impacts. The forecast should be updated at least annually. Note and explain any discrepancies between the filed program goal and the latest forecast.

N/A

## **2. Program Implementation Activities**

### **(a) Marketing Activities**

- NYSERDA participated in the following events:

- **DOE Save Energy Now Industrial Technologies Program Grant Kick-Off Meeting**

**April 22, 2010, Syracuse, NY.** This meeting was held to discuss the DOE grant project to do energy benchmarking and outreach in New York State to meet energy efficiency goals. The attendees included NYSERDA, MACNY, MI, Antares, Syracuse University, and SUNY.

- **Uptime Institute Symposium**

**May 17-19, 2010, New York City.** This event featured several presentations, roundtables, and panel discussions pertaining to data center efficiency and green enterprise IT. An exhibition hall provided opportunities to view products aimed at improving data center energy and resource efficiency.

- **NYSERDA Data Center Stakeholders Meeting**

**May 19, 2010, Verona, NY.** The purpose of the meeting was to seek input from key Data Center stakeholders to strengthen NYSERDA's Data Center programs and to discuss the increased funding for industrial and process efficiency. The meeting included facilitated, small-group breakout sessions allow for candid discussion and feedback.

- **NYSERDA Industrial Stakeholders Meeting**

**June 23, 2010, Albany, NY.** The purpose of this meeting was to seek input from key Manufacturing stakeholders to strengthen NYSERDA's industrial programs and to discuss the increased funding for industrial and process efficiency. The meeting included facilitated, small-group breakout sessions allow for candid discussion and feedback.

(b) Evaluation Activities

The impact evaluation team continued to develop its work plan in May and the markets evaluation team began developing its sample as well as its draft survey instruments. A first draft of the market characterization chapter is expected in early June. The first round of process evaluation surveys was completed in May with a draft findings memo delivered in mid-June.

Evaluation activities for the EEPS gas component of the Industrial and Process Efficiency Program (IPEP) will match activities described in the detailed IPE Evaluation, Measurement and Verification Plan approved by DPS for the EEPS Fast Track component. NYSERDA is in the process of updating this detailed evaluation plan to incorporate EES gas funding and will submit it to DPS for review in the coming months.

(c) Other Activities

RFP 1909 (Technical Review Services to Support Industrial and Process Efficiency Program) was posted to the Contract Reporter on March 26, 2010. Proposals were due July 14, 2010 and a Technical Evaluation Panel review date has been scheduled. Selected contractors will be required to complete several tasks including: reviewing technical studies, providing technical reviews of customer capital project plans, establishing project baselines, completing engineering analysis to determine energy savings, developing measurement and verification plans, performing on-site pre/post construction inspections, responding to customer inquiries, and ensuring program adherence. Approximately five to 10 contractors will be selected.

This section includes program progress and spending for the electric and gas funded IPEP.

**Table A-5. Industrial and Process Efficiency Program Scorecard June 30, 2010**

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA	NYSERDA
Program Name	Industrial and Process Efficiency Program-Electric	Industrial and Process Efficiency Program-Gas
Program Type <sup>2</sup>	Business and Institutional	Business and Institutional
Total Acquired First-Year Impacts This Month <sup>3</sup>		
Net first-year annual kWh acquired this month <sup>4</sup>	9,791,974	-
Monthly Net kWh Goal (based on net first-year <i>annual</i> <sup>5</sup> kWh Goal)	46,757,750	-
Percent of Monthly Net kWh Goal Acquired	20.9%	0.0%
Net Peak <sup>6</sup> kW acquired this month	-	-
Monthly Net Peak kW Goal	-	-
Percent of Monthly Peak kW Goal Acquired	0.0%	0.0%
Net First-year annual therms acquired this month	-	31,930
Monthly Net Therm Goal	-	135,125
Percent of Monthly Therm Goal Acquired	0.0%	23.6%
Net Lifecycle kWh acquired this month	146,879,609	-
Net Lifecycle therms acquired this month	-	478,953
Net Other Monthly Savings (MMBtus) Acquired		
Coal	-	-
Kerosene	-	-
Oil	-	-
Propane	-	-

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA	NYSERDA
Program Name	Industrial and Process Efficiency Program-Electric	Industrial and Process Efficiency Program-Gas
Program Type <sup>2</sup>	Business and Institutional	Business and Institutional
Total Acquired Net First-Year Impacts To Date		
Net first-year annual kWh acquired to date	25,213,537	-
Net first-year annual kWh acquired to date as a percent of annual goal	13.5%	0.0%
Net first-year annual kWh acquired to date as a percent of 8-year goal	3.0%	0.0%
Net cumulative first-year annual kWh acquired to date	25,213,537	-
Net utility kW reductions acquired to date	-	-
Net utility peak kW reductions acquired to date as a percent of utility annual goal	0.0%	0.0%
Net utility peak kW reductions acquired to date as a percent of 8-year goal	0.0%	0.0%
Net NYISO peak kW reductions acquired to date	-	-
Net first-year annual therms acquired to date	-	31,930
Net first-year annual therms acquired to date as a percent of annual goal	0.0%	5.9%
Net first-year annual therms acquired to date as a percent of 8-year goal	0.0%	0.3%
Net cumulative therms acquired to date	-	31,930
Total Acquired Lifecycle Impacts To Date <sup>7</sup>		
Net Lifecycle kWh acquired to date	378,203,054	-
Net Lifecycle therms acquired to date	-	478,953
Committed <sup>8</sup> Impacts (not yet acquired) This Month		
Net First-year annual kWh committed this month	24,193,600	-
Net Lifecycle kWh committed this month	362,904,003	-
Net Utility Peak kW committed this month	-	-
Net first-year annual therms committed this month	-	26,976
Net Lifecycle therms committed this month	-	404,636
Funds committed at this point in time	10,337,770	41,057

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA	NYSERDA
Program Name	Industrial and Process Efficiency Program-Electric	Industrial and Process Efficiency Program-Gas
Program Type <sup>2</sup>	Business and Institutional	Business and Institutional
Overall Impacts (Acquired & Committed)		
Net first-year annual kWh acquired & committed this month	33,985,574	-
Net utility peak kW acquired & committed this month	-	-
Net First-year annual therms acquired & committed this month	-	58,906
Costs <sup>9</sup>		
Total program budget	105,503,620	16,850,179
General Administration	497,759	39,486
Program Planning	-	-
Program Marketing	12,451	-
Trade Ally Training	-	-
Incentives and Services	1,726,833	55,468
Direct Program Implementation	267,101	5,609
Evaluation	88,374	2,032
Total expenditures to date	5,471,264	175,039
Percent of total budget spent to date	5.2%	1.0%
Participation		
Number of program applications received to date	311	11
Number of program applications <i>processed</i> to date <sup>10</sup>	249	7
Number of processed applications <i>approved</i> to date <sup>11</sup>	118	3
Percent of applications received to date that have been processed	80.1%	63.6%
Carbon Emission Reductions (in tons)		
Total Acquired Net First-Year Carbon Emission Reductions To Date	13,767	187
Total Acquired Cumulative Net Carbon Emission Reductions To Date	13,767	187

NOTES: Please refer to the notes following Table A-1.

## CFL EXPANSION PROGRAM<sup>2</sup>

### *Program Description and Background*

#### **1. Program Status**

##### **Program Performance Goals**

- (a) Describe and discuss issues and events that may alter the achievement of project performance goals (positive or negative).

Program partners continued to participate in the EEPS Incentive Program. Twenty-four CFL promotions were approved during the second quarter. Since program inception, 2,985,615 CFLs have been incentivized. As of June 30<sup>th</sup>, the Program has met 52% (1,585,941 CFLs incentivized) of its 2010 EEPS Incentive Program goals (3,043,529 CFLs incentivized).

- (b) Describe and discuss other key issues related to program performance goals that were not discussed in (a).

Not applicable.

- (c) Please provide any updates to your forecast of net energy and demand impacts. The forecast should be updated at least annually. Please note and explain any discrepancies between the filed program goal and the latest forecast.

Not applicable.

#### **2. Program Implementation Activities**

- (a) Marketing Activities

The Shining Example Campaign continued to see an increase in awareness and participation in the second quarter. The Shining Example NY video and essay contest ended May 1, 2010 with 150 videos and 40 essays submitted for consideration. Contest winners were announced during a June 29, 2010 event at Union Square in New York City. Contest winners represented many areas of New York State: Ballston Spa, Preble, Woodside, Bronx, Manhattan, Rochester, Carthage, Cooperstown, Lancaster, Schoharie, Camillus, Elmhurst, Mount Vernon, State Island, South Cairo, Utica, and Wellsville.

- (b) Evaluation Activities:

The Random Digit Dial (RDD)/Onsite, Multistate Modeling and Process Evaluation reports were finalized and DPS approved Option 2 of the Year 2 CFL evaluation activities in the second quarter. RDD and on-site data collection began in the second quarter for the Year 2 CFL evaluation effort and the RDD was near completion by the end of the quarter; on-site data collection will be completed in the third quarter. Using data from the RDD and onsite activities,

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<sup>2</sup> In the DPS reports, this program is referred to as the Statewide POS Lighting program.

multistate modeling analyses will begin in the fourth quarter with draft reports also expected during that time.

(c) Other Activities

Not applicable.

### 3. Customer Complaints and/or Disputes

Not applicable.

### 4. Changes to Subcontractors or Staffing

There have been no changes in the project management or contract team.

### 5. Additional Issues

None to report.

### *Progress Toward EEPS Goals*

Table A-6 displays program progress and spending for the electric-funded CFL Expansion Program.

**Table A-6. CFL Expansion Program Scorecard June 30, 2010**

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA
Program Name	Statewide Residential Point-of-Sale Lighting Program
Program Type <sup>2</sup>	Residential
Total Acquired First-Year Impacts This Month <sup>3</sup>	
Net first-year annual kWh acquired this month <sup>4</sup>	123,157,709
Monthly Net kWh Goal (based on net first-year <i>annual</i> <sup>5</sup> kWh Goal)	86,719,750
Percent of Monthly Net kWh Goal Acquired	142.0%
Net Peak <sup>6</sup> kW acquired this month	16,871
Monthly Net Peak kW Goal	-
Percent of Monthly Peak kW Goal Acquired	0.0%
Net First-year annual therms acquired this month	-
Monthly Net Therm Goal	-

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA
Program Name	Statewide Residential Point-of-Sale Lighting Program
Program Type <sup>2</sup>	Residential
Percent of Monthly Therm Goal Acquired	0.0%
Net Lifecycle kWh acquired this month	1,847,365,632
Net Lifecycle therms acquired this month	-
Net Other Monthly Savings (MMBTUs) Acquired	
Coal	-
Kerosene	-
Oil	-
Propane	-
Total Acquired Net First-Year Impacts To Date	
Net first-year annual kWh acquired to date	303,747,686
Net first-year annual kWh acquired to date as a percent of annual goal	87.6%
Net first-year annual kWh acquired to date as a percent of 8-year goal	28.0%
Net cumulative first-year annual kWh acquired to date	303,747,686
Net utility kW reductions acquired to date	41,609
Net utility peak kW reductions acquired to date as a percent of utility annual goal	0.0%
Net utility peak kW reductions acquired to date as a percent of 8-year goal	0.0%
Net NYISO peak kW reductions acquired to date	41,609
Net first-year annual therms acquired to date	-
Net first-year annual therms acquired to date as a percent of annual goal	0.0%
Net first-year annual therms acquired to date as a percent of 8-year goal	0.0%
Net cumulative therms acquired to date	-
Total Acquired Lifecycle Impacts To Date <sup>7</sup>	
Net Lifecycle kWh acquired to date	4,556,215,296



<b>Program Administrator (PA) and Program ID<sup>1</sup></b>	<b>NYSERDA</b>
<b>Program Name</b>	<b>Statewide Residential Point-of-Sale Lighting Program</b>
<b>Program Type<sup>2</sup></b>	<b>Residential</b>
Net Lifecycle therms acquired to date	-
Committed <sup>8</sup> Impacts (not yet acquired) This Month	
Net First-year annual kWh committed this month	-
Net Lifecycle kWh committed this month	-
Net Utility Peak kW committed this month	-
Net first-year annual therms committed this month	-
Net Lifecycle therms committed this month	-
Funds committed at this point in time	2,282,021
Overall Impacts (Acquired & Committed)	
Net first-year annual kWh acquired & committed this month	123,157,709
Net utility peak kW acquired & committed this month	16,871
Net First-year annual therms acquired & committed this month	-
Costs <sup>9</sup>	
Total program budget	19,528,749
General Administration	244,761
Program Planning	-
Program Marketing	1,578,580
Trade Ally Training	1,044,752
Incentives and Services	-
Direct Program Implementation	131,402
Evaluation	64,325
Total expenditures to date	6,780,589
Percent of total budget spent to date	34.7%
Participation	
Number of program applications received to date	139

<b>Program Administrator (PA) and Program ID<sup>1</sup></b>	<b>NYSERDA</b>
<b>Program Name</b>	<b>Statewide Residential Point-of-Sale Lighting Program</b>
<b>Program Type<sup>2</sup></b>	<b>Residential</b>
Number of program applications <i>processed</i> to date <sup>10</sup>	139
Number of processed applications <i>approved</i> to date <sup>11</sup>	139
Percent of applications received to date that have been processed	100.0%
Carbon Emission Reductions (in tons)	
Total Acquired Net First-Year Carbon Emission Reductions To Date	165,846
Total Acquired Cumulative Net Carbon Emission Reductions To Date	165,846

NOTES: Please refer to the notes following Table A-1.

## HOME PERFORMANCE AND ASSISTED HOME PERFORMANCE PROGRAM (GAS)

### *Program Description and Background*

#### 1. Program Status

During the second quarter, the Supplemental Revisions to the SBC III Operating Plan incorporating EEPS Gas funding for Home Performance with ENERGY STAR and Assisted Home Performance with ENERGY STAR were submitted to DPS as directed by the January 4, 2010 Order. Additional information will be provided upon program approval.

#### **Program Performance Goals**

- (a) Describe and discuss circumstances that may have an impact on the achievement of project performance goals (positive or negative).

Not applicable

- (b) Describe and discuss other key aspects of program performance goals that were not discussed in (a).

Not applicable

- (c) Provide updates to the forecast of net energy and demand impacts. The forecast should be updated at least annually. Note and explain any discrepancies between the filed program goal and the latest forecast.

Not applicable

## **2. Program Implementation Activities**

### **(a) Marketing Activities**

Throughout the second quarter, the Home Performance with ENERGY STAR and Assisted Home Performance with ENERGY STAR Programs were promoted through numerous consumer outreach events, such as home shows, trainings, tradeshow and seminars.

### **(b) Evaluation Activities**

Evaluation activities for the EEPS component of the Home Performance with ENERGY STAR and Assisted Home Performance with ENERGY STAR Programs will match activities described in the detailed overarching Home Performance with ENERGY STAR Program Evaluation, Measurement and Verification Plan approved by DPS for the SBC component. In the coming quarter, NYSERDA will begin the process of updating this detailed evaluation plan for the program to incorporate EEPS funding, and will submit it to DPS for review.

### **(c) Other Activities**

Not applicable

## **3. Customer Complaints and/or Disputes**

Not applicable

## **4. Changes to Subcontractors or Staffing**

Not applicable

## **5. Additional Issues**

Not applicable

### ***Progress Toward EEPS Goals***

Table A-7 displays program progress and spending for the Home Performance and Assisted Home Performance Programs.

**Table A-7. Home Performance and Assisted Home Performance Program Scorecard June 30, 2010**

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA	NYSERDA
Program Name	Home Performance with Energy Star	Assisted Home Performance with Energy Star
Program Type <sup>2</sup>	Residential	Low Income
Total Acquired First-Year Impacts This Month <sup>3</sup>		
Net first-year annual kWh acquired this month <sup>4</sup>	-	-
Monthly Net kWh Goal (based on net first-year <i>annual</i> <sup>5</sup> kWh Goal)	-	-
Percent of Monthly Net kWh Goal Acquired	0.0%	0.0%
Net Peak <sup>6</sup> kW acquired this month	-	-
Monthly Net Peak kW Goal	-	-
Percent of Monthly Peak kW Goal Acquired	0.0%	0.0%
Net First-year annual therms acquired this month	55,660	9,488
Monthly Net Therm Goal	574,023	66,358
Percent of Monthly Therm Goal Acquired	9.7%	14.3%
Net Lifecycle kWh acquired this month	-	-
Net Lifecycle therms acquired this month	1,001,866	170,798
Net Other Monthly Savings (MMBtus) Acquired		
Coal	-	-
Kerosene	-	-
Oil	-	-
Propane	-	-
Total Acquired Net First-Year Impacts To Date		
Net first-year annual kWh acquired to date	-	-
Net first-year annual kWh acquired to date as a percent of annual goal	0.0%	0.0%

<b>Program Administrator (PA) and Program ID<sup>1</sup></b>	<b>NYSERDA</b>	<b>NYSERDA</b>
<b>Program Name</b>	<b>Home Performance with Energy Star</b>	<b>Assisted Home Performance with Energy Star</b>
<b>Program Type<sup>2</sup></b>	<b>Residential</b>	<b>Low Income</b>
Net first-year annual kWh acquired to date as a percent of 8-year goal	0.0%	0.0%
Net cumulative first-year annual kWh acquired to date	-	-
Net utility kW reductions acquired to date	-	-
Net utility peak kW reductions acquired to date as a percent of utility annual goal	0.0%	0.0%
Net utility peak kW reductions acquired to date as a percent of 8-year goal	0.0%	0.0%
Net NYISO peak kW reductions acquired to date	-	-
Net first-year annual therms acquired to date	55,660	9,488
Net first-year annual therms acquired to date as a percent of annual goal	2.4%	3.6%
Net first-year annual therms acquired to date as a percent of 8-year goal	1.4%	2.0%
Net cumulative therms acquired to date	55,660	9,488
Total Acquired Lifecycle Impacts To Date <sup>7</sup>		
Net Lifecycle kWh acquired to date	-	-
Net Lifecycle therms acquired to date	1,001,866	170,798
Committed <sup>8</sup> Impacts (not yet acquired) This Month		
Net First-year annual kWh committed this month	-	-
Net Lifecycle kWh committed this month	-	-
Net Utility Peak kW committed this month	-	-
Net first-year annual therms committed this month	24,624	-
Net Lifecycle therms committed this month	443,232	-
Funds committed at this point in time	-	-
Overall Impacts (Acquired & Committed)		
Net first-year annual kWh acquired & committed this month	-	-
Net utility peak kW acquired & committed this month	-	-
Net First-year annual therms acquired & committed this month	80,284	9,488

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA	NYSERDA
Program Name	Home Performance with Energy Star	Assisted Home Performance with Energy Star
Program Type <sup>2</sup>	Residential	Low Income
Costs <sup>9</sup>		
Total program budget	24,702,996	7,232,684
General Administration	256,677	116,290
Program Planning	-	-
Program Marketing	-	-
Trade Ally Training	-	-
Incentives and Services	445,768	72,283
Direct Program Implementation	-	4,522
Evaluation	-	-
Total expenditures to date	832,867	220,972
Percent of total budget spent to date	3.4%	3.1%
Participation		
Number of program applications received to date	483	23
Number of program applications <i>processed</i> to date <sup>10</sup>	483	23
Number of processed applications <i>approved</i> to date <sup>11</sup>	336	23
Percent of applications received to date that have been processed	100.0%	100.0%
Carbon Emission Reductions (in tons)		
Total Acquired Net First-Year Carbon Emission Reductions To Date	326	56
Total Acquired Cumulative Net Carbon Emission Reductions To Date	326	56

**NOTES:** Please refer to the notes following Table A-1.

## NEW YORK ENERGY STAR HOMES PROGRAM (GAS)

### *Program Description and Background*

#### **1. Program Status**

During the second quarter, the Supplemental Revision to the SBC III Operating Plan incorporating EEPS Gas funding was submitted to DPS as directed by the January 4, 2010 Order. Additional information will be provided upon program approval.

#### **Program Performance Goals**

- (a) Describe and discuss circumstances that may have an impact on the achievement of project performance goals (positive or negative).

Not applicable

- (b) Describe and discuss other key aspects of program performance goals that were not discussed in (a).

Not applicable

- (c) Provide updates to the forecast of net energy and demand impacts. The forecast should be updated at least annually. Note and explain any discrepancies between the filed program goal and the latest forecast.

Not applicable

#### **2. Program Implementation Activities**

- (a) Marketing Activities

Throughout the second quarter, the New York ENERGY STAR Homes Program was promoted through numerous consumer outreach events, such as home shows, trainings, tradeshow, and seminars.

- (b) Evaluation Activities

Evaluation activities for the EEPS component of the New York ENERGY STAR Homes Program will match activities described in the detailed New York ENERGY STAR Homes Program Evaluation, Measurement and Verification Plan approved by DPS for the SBC component. In the coming quarter, NYSERDA will begin the process of updating the detailed evaluation plan for this program to incorporate EEPS funding, and will submit it to DPS for review.

- (c) Other Activities

None

**3. Customer Complaints and/or Disputes**

Not applicable

**4. Changes to Subcontractors or Staffing**

Not applicable

**5. Additional Issues**

Not applicable

***Progress Toward EEPS Goals***

Table A-8 displays program progress and spending for the New York ENERGY STAR Homes Program.



**Table A-8. New York Energy Star Homes Program Scorecard June 30, 2010**

<b>Program Administrator (PA) and Program ID<sup>1</sup></b>	<b>NYSERDA</b>
<b>Program Name</b>	<b>New York Energy Star Homes (New Construction)</b>
<b>Program Type<sup>2</sup></b>	<b>Residential</b>
Total Acquired First-Year Impacts This Month <sup>3</sup>	
Net first-year annual kWh acquired this month <sup>4</sup>	-
Monthly Net kWh Goal (based on net first-year <i>annual</i> <sup>5</sup> kWh Goal)	-
Percent of Monthly Net kWh Goal Acquired	0.0%
Net Peak <sup>6</sup> kW acquired this month	-
Monthly Net Peak kW Goal	-
Percent of Monthly Peak kW Goal Acquired	0.0%
Net First-year annual therms acquired this month	196,298
Monthly Net Therm Goal	612,525
Percent of Monthly Therm Goal Acquired	32%
Net Lifecycle kWh acquired this month	-
Net Lifecycle therms acquired this month	3,533,364
Net Other Monthly Savings (MMBtus) Acquired	
Coal	-
Kerosene	-
Oil	-
Propane	-
Total Acquired Net First-Year Impacts To Date	
Net first-year annual kWh acquired to date	-
Net first-year annual kWh acquired to date as a percent of annual goal	0.0%
Net first-year annual kWh acquired to date as a percent of 8-year goal	0.0%

<b>Program Administrator (PA) and Program ID<sup>1</sup></b>	<b>NYSERDA</b>
<b>Program Name</b>	<b>New York Energy Star Homes (New Construction)</b>
<b>Program Type<sup>2</sup></b>	<b>Residential</b>
Net cumulative first-year annual kWh acquired to date	-
Net utility kW reductions acquired to date	-
Net utility peak kW reductions acquired to date as a percent of utility annual goal	0.0%
Net utility peak kW reductions acquired to date as a percent of 8-year goal	0.0%
Net NYISO peak kW reductions acquired to date	-
Net first-year annual therms acquired to date	196,298
Net first-year annual therms acquired to date as a percent of annual goal	8.0%
Net first-year annual therms acquired to date as a percent of 8-year goal	4.6%
Net cumulative therms acquired to date	196,298
Total Acquired Lifecycle Impacts To Date <sup>7</sup>	
Net Lifecycle kWh acquired to date	-
Net Lifecycle therms acquired to date	3,533,364
Committed <sup>8</sup> Impacts (not yet acquired) This Month	
Net First-year annual kWh committed this month	-
Net Lifecycle kWh committed this month	-
Net Utility Peak kW committed this month	-
Net first-year annual therms committed this month	614
Net Lifecycle therms committed this month	11,052
Funds committed at this point in time	-
Overall Impacts (Acquired & Committed)	
Net first-year annual kWh acquired & committed this month	-
Net utility peak kW acquired & committed this month	-
Net First-year annual therms acquired & committed this month	196,912
Costs <sup>9</sup>	
Total program budget	18,202,207
General Administration	284,391

<b>Program Administrator (PA) and Program ID<sup>1</sup></b>	<b>NYSERDA</b>
<b>Program Name</b>	<b>New York Energy Star Homes (New Construction)</b>
<b>Program Type<sup>2</sup></b>	<b>Residential</b>
Program Planning	-
Program Marketing	-
Trade Ally Training	-
Incentives and Services	435,480
Direct Program Implementation	-
Evaluation	-
Total expenditures to date	831,867
Percent of total budget spent to date	4.6%
Participation	
Number of program applications received to date	429
Number of program applications <i>processed</i> to date <sup>10</sup>	429
Number of processed applications <i>approved</i> to date <sup>11</sup>	351
Percent of applications received to date that have been processed	100.0%
Carbon Emission Reductions (in tons)	
Total Acquired Net First-Year Carbon Emission Reductions To Date	1,148
Total Acquired Cumulative Net Carbon Emission Reductions To Date	1,148

**NOTES:** Please refer to the notes following Table A-1.

## MULTIFAMILY PERFORMANCE PROGRAM (ELECTRIC AND GAS)

This section summarizes progress on all components of the Multifamily Performance Program (MPP), including both the market-rate and low-income portions of the program that receive electric and gas efficiency funding. This section also includes progress and updates for the special multifamily geothermal and master meter initiatives.

### *Program Description and Background*

The MPP includes a suite of program components receiving EEPS gas electric and gas funding. The programs include:

- Electric Low Income Multifamily Program
- Gas Low Income Multifamily Program
- Electric Multifamily Program

- Gas Multifamily Program
- Geothermal Heat Pumps in Multifamily Buildings Program
- Electric Reduction in Master Metered Multifamily Buildings

In response to a petition filed with DPS on behalf of these programs, a rehearing was granted in December 2009, resulting in an Order granting authority to use EEPS funds to implement all of these programs.

## **1. Program Status**

The six programs in this group are still in preparation to be implemented with a tentative start date of September 1, 2010

### **Electric and Gas Low Income Multifamily Program**

- NYSERDA received a letter dated May 19, 2010 from DPS confirming that the Multifamily Performance Programs do not require Staff to determine that the Operating Plan properly reflects the Order prior to implementation.
- The use of comprehensive modeling as a custom measure for the multifamily sector was part of the May 26<sup>th</sup> NYS Register proposed modifications to the Technical Manuals for EEPS programs. As previously reported, this is a key component of the Multifamily Performance Programs. Although the SAPA process has not formally concluded, NYSERDA will proceed with implementation with the understanding that this revision will be adopted.
- NYSERDA is in the process of developing the program's technical and administrative documentation and protocols in anticipation of the re-launch.

### **Geothermal Heat Pumps in Multifamily Buildings Program**

- Following the full approval of the Operating Plan on February 10, 2010, new program documents are being finalized to release a solicitation to obtain the first group of potential projects. In anticipation of program launch, NYSERDA has modified its implementation contract with TRC Solutions to begin development of the program rules and policies

### **Electric Reduction in Master Metered Multifamily Buildings**

- NYSERDA staff met with DPS to develop meter standards required to implement the program. A DPS letter, dated February 10, 2010, stated the metering requirements remain unresolved; however, DPS staff have identified a pathway to resolve the outstanding issue with the meter vendors.

### **Program Performance Goals**

- (a) Describe and discuss circumstances that may have an impact on the achievement of project performance goals (positive or negative).

### **Electric Reduction in Master Metered Multifamily Buildings**

NYSERDA is currently awaiting approval of the ERMM Operating Plan by DPS. Revisions were submitted on December 7, 2009, and NYSERDA staff is actively working with DPS staff to develop standards and specifications for meters installed under the program.

Two outstanding administrative issues, described below, are holding up deployment of the ERMM Program and limiting the program's ability to achieve its savings goals.

- The Order approving the ERMM required NYSERDA to consult with DPS staff to develop metering standards to apply to all meters installed in the program, and DPS has asserted that all meters need to be approved by staff before being eligible for use in the program. DPS and NYSERDA staff have worked to develop a set of standards to be used in the program. Currently, no meters have been approved by DPS for compliance with the metering standards that were developed. Without meters, the ERMM Program cannot be implemented. In order to resolve this issue, NYSERDA recommends using the standards that were used in the MPP.
- NYSERDA is also awaiting confirmation from DPS of the NYS Public Service Commission of the definition to be used for affordable housing. Only buildings not designated as affordable housing can participate. A question remains as to whether Rent Controlled and Rent Stabilized (RC/RS) apartments constitute affordable housing. Prohibiting all RC/RS apartments would drastically diminish the pool of eligible buildings, and would prevent the program from achieving its stated savings targets. NYSERDA recommends allowing RC/RS buildings to participate in the ERMM program. The program has not yet begun implementation pending resolution of these issues. This continued delay will hinder the program's ability to meet energy savings targets by the end of 2011.

### **Geothermal Heat Pumps in Multifamily Buildings Program**

NYSERDA has developed a TRC Test spreadsheet to pre-screen all geothermal systems to ensure each project will meet the TRC test. Program staff is also developing a Request for Proposals to select participating MPP buildings to receive geothermal incentives. NYSERDA anticipates the solicitation to be released in August.

The Order requires each project to pass the TRC Test. Because incentives for the Geothermal Program are electric-based, projects must be evaluated based on electric savings. This means eligible buildings will need to be electrically heated and/or electrically cooled in order to be competitive for the solicitation. Based on significant analysis, NYSERDA staff remains concerned about the ability for any project to meet the TRC threshold, and is therefore concerned that energy savings goals may not be met.

- (b) Describe and discuss other key aspects of program performance goals that were not discussed in (a).

None

- (c) Provide updates to the forecast of net energy and demand impacts. The forecast should be updated at least annually. Note and explain any discrepancies between the filed program goal and the latest forecast.

None

## **2. Program Implementation Activities**

### **(a) Marketing Activities**

MPP programs continued to be marketed together at community events mostly targeting multifamily and low income audiences. These included EcoFairs, green building events, and presentations on energy efficiency in urban areas and affordable rental housing through energy conservation. April had the largest number of events, with MPP staff attending seven events with an estimated attendance of 738. Only one event was held in May garnering 80 attendees. No events were reported or planned for June

### **(b) Evaluation Activities**

NYSERDA is in the process of updating its detailed evaluation plan for the MPP program elements and will submit it to DPS for review and approval in the coming months.

It is anticipated that evaluation activities for the **New York Energy \$mart<sup>SM</sup>** and EEPS components of the MPP will be conducted in a coordinated fashion, taking into consideration changes in program rules and operation.

As part of its required refrigerator M&V study, NYSERDA and DPS have agreed to focus on EEPS-funded MPP refrigerators instead of SBC-funded MPP refrigerators. This focus on EEPS-funded refrigerators will necessitate a delay in initiating this study to ensure an adequate number of refrigerators have been installed. NYSERDA and DPS will determine an appropriate due date for this effort.

### **(c) Other Activities**

None

## **3. Customer Complaints and/or Disputes**

None

## **4. Changes to Subcontractors or Staffing**

NYSERDA transitioned the management and administration of suite of Multifamily Programs to its New York City Office. Michael Colgrove, Director of Energy Programs for the New York City Office, is now the acting Program Manager for Multifamily Programs.

## **5. Additional Issues**

None

***Progress Toward EEPS Goals MPP Program***

Table A-9 displays program progress and spending for the MPP electric and gas funded components. Table A-10 displays program progress and spending for the low-income MPP electric and gas funded components. Table A-11 displays program progress for the ERMM and Geothermal incentive offerings.

**Table A-9. Multifamily Performance Program Scorecard June 30, 2010**

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA	NYSERDA
Program Name	Multifamily Performance Program-electric	Multifamily Performance Program-gas
Program Type <sup>2</sup>		
Total Acquired First-Year Impacts This Month <sup>3</sup>		
Net first-year annual kWh acquired this month <sup>4</sup>	-	-
Monthly Net kWh Goal (based on net first-year <i>annual</i> <sup>5</sup> kWh Goal)	981,000	-
Percent of Monthly Net kWh Goal Acquired	0.0%	0.0%
Net Peak <sup>6</sup> kW acquired this month	-	-
Monthly Net Peak kW Goal	-	-
Percent of Monthly Peak kW Goal Acquired	0.0%	0.0%
Net First-year annual therms acquired this month	-	15,867
Monthly Net Therm Goal	-	471,605
Percent of Monthly Therm Goal Acquired	0.0%	3.4%
Net Lifecycle kWh acquired this month	-	-
Net Lifecycle therms acquired this month	-	-
Net Other Monthly Savings (MMBtus) Acquired		
Coal	-	-
Kerosene	-	-
Oil	-	-
Propane	-	-
Total Acquired Net First-Year Impacts To Date		
Net first-year annual kWh acquired to date	-	-
Net first-year annual kWh acquired to date as a percent of annual goal	0.0%	0.0%
Net first-year annual kWh acquired to date as a percent of 8-year goal	0.0%	0.0%
Net cumulative first-year annual kWh acquired to date	-	-
Net utility kW reductions acquired to date	-	-



Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA	NYSERDA
Program Name	Multifamily Performance Program-electric	Multifamily Performance Program-gas
Program Type <sup>2</sup>		
Net utility peak kW reductions acquired to date as a percent of utility annual goal	0.0%	0.0%
Net utility peak kW reductions acquired to date as a percent of 8-year goal	0.0%	0.0%
Net NYISO peak kW reductions acquired to date	-	-
Net first-year annual therms acquired to date	-	15,867
Net first-year annual therms acquired to date as a percent of annual goal	0.0%	0.8%
Net first-year annual therms acquired to date as a percent of 8-year goal	0.0%	0.4%
Net cumulative therms acquired to date	-	15,867
Total Acquired Lifecycle Impacts To Date <sup>7</sup>		
Net Lifecycle kWh acquired to date	-	-
Net Lifecycle therms acquired to date	-	-
Committed <sup>8</sup> Impacts (not yet acquired) This Month		
Net First-year annual kWh committed this month	305,417	-
Net Lifecycle kWh committed this month	5,390,606	-
Net Utility Peak kW committed this month	59	-
Net first-year annual therms committed this month	-	32,886
Net Lifecycle therms committed this month	-	559,062
Funds committed at this point in time	62,694	192,231
Overall Impacts (Acquired & Committed)		
Net first-year annual kWh acquired & committed this month	305,417	-
Net utility peak kW acquired & committed this month	59	-
Net First-year annual therms acquired & committed this month	-	48,753
Costs <sup>9</sup>		
Total program budget	1,299,719	18,181,511
General Administration	30,586	72,289
Program Planning	-	-
Program Marketing	-	-
Trade Ally Training	-	-

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA	NYSERDA
	<b>Multifamily Performance Program-electric</b>	<b>Multifamily Performance Program-gas</b>
<b>Program Name</b>		
<b>Program Type<sup>2</sup></b>		
Incentives and Services	-	-
Direct Program Implementation	-	-
Evaluation	21,437	8,500
Total expenditures to date	231,946	650,507
Percent of total budget spent to date	17.8%	3.6%
Participation		
Number of program applications received to date	6	3
Number of program applications <i>processed</i> to date <sup>10</sup>	6	3
Number of processed applications <i>approved</i> to date <sup>11</sup>	6	3
Percent of applications received to date that have been processed	100.0%	100.0%
Carbon Emission Reductions (in tons)		
Total Acquired Net First-Year Carbon Emission Reductions To Date	-	93
Total Acquired Cumulative Net Carbon Emission Reductions To Date	-	93

NOTES: Please refer to the notes following Table A-1.

**Table A-10. Low-Income Multifamily Performance Program Scorecard June 30, 2010**

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA	NYSERDA
	<b>Low-Income Multifamily Performance Program-electric</b>	<b>Low-Income Multifamily Performance Program- gas</b>
<b>Program Name</b>		
<b>Program Type<sup>2</sup></b>		
Total Acquired First-Year Impacts This Month <sup>3</sup>		
Net first-year annual kWh acquired this month <sup>4</sup>	542,354	-
Monthly Net kWh Goal (based on net first-year <i>annual</i> <sup>5</sup> kWh Goal)	942,250	-
Percent of Monthly Net kWh Goal Acquired	57.6%	0.0%
Net Peak <sup>6</sup> kW acquired this month	64	-

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA	NYSERDA
Program Name	Low-Income Multifamily Performance Program- electric	Low-Income Multifamily Performance Program- gas
Program Type <sup>2</sup>		
Monthly Net Peak kW Goal	-	-
Percent of Monthly Peak kW Goal Acquired	0.0%	0.0%
Net First-year annual therms acquired this month	-	59,310
Monthly Net Therm Goal	-	76,673
Percent of Monthly Therm Goal Acquired	0.0%	77.4%
Net Lifecycle kWh acquired this month	7,213,302	-
Net Lifecycle therms acquired this month	-	755,194
Net Other Monthly Savings (MMBtus) Acquired		
Coal	-	-
Kerosene	-	-
Oil	-	-
Propane	-	-
Total Acquired Net First-Year Impacts To Date		
Net first-year annual kWh acquired to date	542,354	-
Net first-year annual kWh acquired to date as a percent of annual goal	14.4%	0.0%
Net first-year annual kWh acquired to date as a percent of 8-year goal	3.4%	0.0%
Net cumulative first-year annual kWh acquired to date	-	-
Net utility kW reductions acquired to date	64	-
Net utility peak kW reductions acquired to date as a percent of utility annual goal	0.0%	0.0%
Net utility peak kW reductions acquired to date as a percent of 8-year goal	0.0%	0.0%
Net NYISO peak kW reductions acquired to date	64	-
Net first-year annual therms acquired to date	-	59,310
Net first-year annual therms acquired to date as a percent of annual goal	0.0%	19.3%
Net first-year annual therms acquired to date as a percent of 8-year goal	0.0%	3.6%
Net cumulative therms acquired to date	-	59,310

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA	NYSERDA
Program Name	Low-Income Multifamily Performance Program- electric	Low-Income Multifamily Performance Program- gas
Program Type <sup>2</sup>		
Total Acquired Lifecycle Impacts To Date <sup>7</sup>		
Net Lifecycle kWh acquired to date	7,213,302	-
Net Lifecycle therms acquired to date	-	755,194
Committed <sup>8</sup> Impacts (not yet acquired) This Month		
Net First-year annual kWh committed this month	958,134	-
Net Lifecycle kWh committed this month	12,455,738	-
Net Utility Peak kW committed this month	26	-
Net first-year annual therms committed this month	-	17,748
Net Lifecycle therms committed this month	-	279,531
Funds committed at this point in time	128,905	120,495
Overall Impacts (Acquired & Committed)		
Net first-year annual kWh acquired & committed this month	1,500,487	-
Net utility peak kW acquired & committed this month	90	-
Net First-year annual therms acquired & committed this month	-	77,058
Costs <sup>9</sup>		
Total program budget	4,101,110	12,530,451
General Administration	45,799	85,321
Program Planning	-	-
Program Marketing	-	-
Trade Ally Training	-	-
Incentives and Services	42,840	15,980
Direct Program Implementation	-	-
Evaluation	21,437	8,500
Total expenditures to date	211,820	312,806
Percent of total budget spent to date	5.2%	2.5%
Participation		
Number of program applications received to date	7	7

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA	NYSERDA
Program Name	Low-Income Multifamily Performance Program- electric	Low-Income Multifamily Performance Program- gas
Program Type <sup>2</sup>		
Number of program applications <i>processed</i> to date <sup>10</sup>	7	7
Number of processed applications <i>approved</i> to date <sup>11</sup>	7	7
Percent of applications received to date that have been processed	100.0%	100.0%
Carbon Emission Reductions (in tons)		
Total Acquired Net First-Year Carbon Emission Reductions To Date	296	347
Total Acquired Cumulative Net Carbon Emission Reductions To Date	-	347

**NOTES:** Please refer to the notes following Table A-1.

**Table A-11. Geothermal Heat Pump Systems Program & Electric Reduction in Master-Metered Multifamily Buildings Program Scorecard June 30, 2010**

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA	NYSERDA
Program Name	Geothermal Heat Pump Systems Program	Electric Reduction in Master-Metered Multifamily Buildings Program
Program Type <sup>2</sup>		
Total Acquired First-Year Impacts This Month <sup>3</sup>		
Net first-year annual kWh acquired this month <sup>4</sup>	-	-
Monthly Net kWh Goal (based on net first-year annual kWh Goal)	936,250	3,930,750
Percent of Monthly Net kWh Goal Acquired	0.0%	0.0%
Net Peak kW acquired this month	-	-
Monthly Net Peak kW Goal	-	-
Percent of Monthly Peak kW Goal Acquired	0.0%	0.0%
Net First-year annual therms acquired this month	-	-
Monthly Net Therm Goal	-	-
Percent of Monthly Therm Goal Acquired	0.0%	0.0%
Net Lifecycle kWh acquired this month	-	-
Net Lifecycle therms acquired this month	-	-
Net Other Monthly Savings (MMBtus) Acquired		
Coal	-	-
Kerosene	-	-
Oil	-	-
Propane	-	-
Total Acquired Net First-Year Impacts To Date		
Net first-year annual kWh acquired to date	-	-
Net first-year annual kWh acquired to date as a percent of annual goal	0.0%	0.0%
Net first-year annual kWh acquired to date as a percent of 8-year goal	0.0%	0.0%
Net cumulative first-year annual kWh acquired to date	-	-

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA	NYSERDA
Program Name	Geothermal Heat Pump Systems Program	Electric Reduction in Master-Metered Multifamily Buildings Program
Program Type <sup>2</sup>		
Net utility kW reductions acquired to date	-	-
Net utility peak kW reductions acquired to date as a percent of utility annual goal	0.0%	0.0%
Net utility peak kW reductions acquired to date as a percent of 8-year goal	0.0%	0.0%
Net NYISO peak kW reductions acquired to date	-	-
Net first-year annual therms acquired to date	-	-
Net first-year annual therms acquired to date as a percent of annual goal	0.0%	0.0%
Net first-year annual therms acquired to date as a percent of 8-year goal	0.0%	0.0%
Net cumulative therms acquired to date	-	-
Total Acquired Lifecycle Impacts To Date <sup>7</sup>		
Net Lifecycle kWh acquired to date	-	-
Net Lifecycle therms acquired to date	-	-
Committed <sup>8</sup> Impacts (not yet acquired) This Month		
Net First-year annual kWh committed this month	-	-
Net Lifecycle kWh committed this month	-	-
Net Utility Peak kW committed this month	-	-
Net first-year annual therms committed this month	-	-
Net Lifecycle therms committed this month	-	-
Funds committed at this point in time	-	-
Overall Impacts (Acquired & Committed)		
Net first-year annual kWh acquired & committed this month	-	-
Net utility peak kW acquired & committed this month	-	-
Net First-year annual therms acquired & committed this month	-	-
Costs <sup>9</sup>		
Total program budget	2,326,405	13,175,815
General Administration	10,250	28,069
Program Planning	-	-
Program Marketing	-	-

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA	NYSERDA
Program Name	Geothermal Heat Pump Systems Program	Electric Reduction in Master-Metered Multifamily Buildings Program
Program Type <sup>2</sup>		
Trade Ally Training	-	-
Incentives and Services	-	-
Direct Program Implementation	-	30,000
Evaluation	8,500	8,500
Total expenditures to date	152,866	604,104
Percent of total budget spent to date	6.6%	4.6%
Participation		
Number of program applications received to date	-	-
Number of program applications processed to date <sup>10</sup>	-	-
Number of processed applications approved to date <sup>11</sup>	-	-
Percent of applications received to date that have been processed	0.0%	0.0%
Carbon Emission Reductions (in tons)		
Total Acquired Net First-Year Carbon Emission Reductions To Date	-	-
Total Acquired Cumulative Net Carbon Emission Reductions To Date	-	-

NOTES: Please refer to the notes following Table A-1.

## EMPOWER PROGRAM (ELECTRIC AND GAS)

### 1. Program Status

#### EmPower Gas Program

EmPower began assigning EEPS Gas projects to participating contractors on April 1, 2010. Program production increased from 45 projects in April to a total of 171 for the quarter with 17 completions. The program continues to ramp up production.

#### Program Performance Goals

- (a) Describe and discuss circumstances that may have an impact on the achievement of project performance goals (positive or negative).



## **Empower-Electric and Gas**

NYSERDA has been in discussion with DPS regarding outstanding issues related to utility referrals. DPS has recently authorized NYSERDA to proceed with production while these issues are resolved. EmPower has begun to ramp up production in response to this direction.

### **Empower Electric**

Over the quarter, on a cumulative basis, the program went from 98% of its production goals and 59% of its kWh savings goals in April to 92% of production goals and 56% of its kWh savings goal by the end of the quarter.

(b) Describe and discuss other key aspects of program performance goals that were not discussed in

### **Empower Gas**

- A June 24, 2010 Commission Order provided an additional \$2.5 Million in gas funding anticipated to achieve an additional 21,717 Dekatherms.<sup>3</sup>
- Additionally, a June 21, 2010<sup>4</sup> Commission Order relieved St. Lawrence and Corning of their obligation to collect and transfer funds to NYSERDA for certain NYSERDA-administered EEPS programs. As a result, the EmPower budget is reduced by \$110,382 and goals reduced by 959 Dekatherms.

### **Empower Electricity**

- By the end of Quarter 2, the program achieved 92% of its cumulative production goals for completed units and 56% of its cumulative kWh savings goals.<sup>5</sup>
  - Electricity savings were adjusted with the adoption of formulas in the EEPS Technical Manual.
- (c) Provide updates to the forecast of net energy and demand impacts. The forecast should be updated at least annually. Note and explain any discrepancies between the filed program goal and the latest forecast.

N/A

<sup>3</sup> Case 07-M-0548 – Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard, Order Approving Three New Energy Efficiency Portfolio Standard (EEPS) Programs and Enhancing Funding and Making Other Modifications for Other EEPS Programs, issued and effective June 24, 2010.

<sup>4</sup> Case 07-M-0548 – Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard, Order On Rehearing Denying In Part and Granting In Part Petitions For Reconsideration, issued and effective June 21, 2010.

<sup>5</sup> kWh savings goals are based on a realization rate of .81.

## 2. Program Implementation Activities

### (a) Marketing Activities

This quarter, the EmPower Staff and contractors held the following events to promote NYSERDA EEPS programs.

- April: Outreach staff held events around the State for EmPower gas, primarily directed toward agencies, with a few targeted toward potential clients. These mostly included presentations of program details and strategies to provide a foundation of information about the new program. Outreach was targeted toward potential collaborative or referring agencies such as the Office for the Aging or WAP, or other community advocacy agencies. The outreach also included mailings on program information and presentations to potential clients. Altogether these 15 events reached approximately 150 people within agencies. For the electric program, staff held 45 events across the State reaching approximately 29,137 people. Highlights included Earth Week at Hudson Valley Community College reaching an estimated 14,000 people and Earth Day Southern Tier, which reached an estimated 3,000 potential participants.
- May: Staff held 28 events at agencies, summits, expos, home shows, etc. targeted at low income housing owners/renters and some agencies and reaching an estimated 20,122 low income people. Highlights included a presentation at the ECO-friendly Expo in NYC, which attracted approximately 3,000 people and the 35<sup>th</sup> annual Rome Home show, which attracted an estimated 4,000 people.
- June: Staff was present at 16 marketing events reaching an estimated 16,050 potential participants. Highlights included the “Living in America” Fair in Brooklyn, attracting an estimated 3,000 people and the 44<sup>th</sup> Annual Clearwater Festival in Croton on Hudson attracting an estimated 3,000 attendees.

### (b) Evaluation Activities

As described in its Detailed Evaluation Plan for this program, NYSERDA collectively evaluates both **New York Energy \$mart<sup>SM</sup>** and EEPS-funded projects. As evaluation activities commence, particularly for impact evaluation, **New York Energy \$mart<sup>SM</sup>**-funded projects will be in the majority of projects sampled. However, as EEPS-funded projects are completed, they will then be incorporated into NYSERDA’s evaluation efforts.

#### **Empower Electric**

The Impact evaluation team continued to pursue utility billing data for its evaluation activities. The Process Evaluation team completed its survey work in April, conducted analysis of the data in May, and submitted a final report in July.

#### **Empower Gas**

Evaluation activities for the EEPS gas component of the EmPower Program will match activities described in the detailed EmPower Program Evaluation, Measurement and Verification Plan approved by DPS for the **New York Energy \$mart<sup>SM</sup>** and EEPS Fast Track components. NYSERDA is in the process of updating this detailed evaluation plan to incorporate EEPS gas funding and will submit it to DPS for review in the coming months.

(c) Other Activities

None

**3. Customer Complaints and/or Disputes**

None to report.

**4. Changes to Subcontractors or Staffing**

Contracts with Honeywell International and Conservation Services Group are being modified to include Implementation and Quality Assurance activities for the EEPS Gas program services.

**5. Additional Issues**

NYSERDA has allocated the EEPS Gas funding across the gas utility service areas based on collections. As a result, utilities service territories that had previously funded EmPower under rate case settlements will experience a significant decrease in the amount of households served. Additionally, NYSERDA has received feedback from other utilities expressing concern about the limited number of households to be served in their areas. Additional funding has been requested to allow for better continuity of services.

The January 4<sup>th</sup>, 2010 Order providing gas funding for EmPower New York, provided for the utilities to receive 15% of the energy savings for projects resulting from utility referrals to EmPower New York. NYSERDA met with the utilities on June 10, 2010 to discuss this topic. Follow up discussions were planned for July. Beyond the process and data requirements for the referrals, NYSERDA and the utilities require direction from DPS on a number of issues including: applicability to electric referrals; effective date; process for crediting savings; and impact on NYSERDA's EmPower goals as a result of the 15% credit to the utilities.

**Progress Toward EEPS Goals**

Table A-12 shows the EmPower Program savings achieved in this quarter and progress toward the quarterly goal.

**Table A-12. EmPower Program Scorecard June 30, 2010**

<b>Program Administrator (PA) and Program ID<sup>1</sup></b>	<b>NYSERDA</b>	<b>NYSERDA</b>
<b>Program Name</b>	<b>EmPower New York-Electric</b>	<b>EmPower New York- Gas</b>
<b>Program Type<sup>2</sup></b>	<b>Low Income</b>	<b>Low Income</b>
Total Acquired First-Year Impacts This Month <sup>3</sup>		
Net first-year annual kWh acquired this month <sup>4</sup>	1,092,340	-
Monthly Net kWh Goal (based on net first-year annual <sup>5</sup> kWh Goal)	1,555,250	-
Percent of Monthly Net kWh Goal Acquired	70.2%	0.0%
Net Peak <sup>6</sup> kW acquired this month	(139)	-
Monthly Net Peak kW Goal	-	-
Percent of Monthly Peak kW Goal Acquired	0.0%	0.0%
Net First-year annual therms acquired this month	-	4,446
Monthly Net Therm Goal	-	120,834
Percent of Monthly Therm Goal Acquired	0.0%	3.7%
Net Lifecycle kWh acquired this month	12,343,443	-
Net Lifecycle therms acquired this month	-	-
Net Other Monthly Savings (MMBtus) Acquired		
Coal	-	-
Kerosene	-	-
Oil	-	-
Propane	-	-

<b>Program Administrator (PA) and Program ID<sup>1</sup></b>	<b>NYSERDA</b>	<b>NYSERDA</b>
<b>Program Name</b>	<b>EmPower New York-Electric</b>	<b>EmPower New York- Gas</b>
<b>Program Type<sup>2</sup></b>	<b>Low Income</b>	<b>Low Income</b>
Total Acquired Net First-Year Impacts To Date		
Net first-year annual kWh acquired to date	7,475,222	-
Net first-year annual kWh acquired to date as a percent of annual goal	120.2%	0.0%
Net first-year annual kWh acquired to date as a percent of 8-year goal	25.4%	0.0%
Net cumulative first-year annual kWh acquired to date	-	-
Net utility kW reductions acquired to date	818	-
Net utility peak kW reductions acquired to date as a percent of utility annual goal	0.0%	0.0%
Net utility peak kW reductions acquired to date as a percent of 8-year goal	0.0%	0.0%
Net NYISO peak kW reductions acquired to date	-	-
Net first-year annual therms acquired to date	-	4,446
Net first-year annual therms acquired to date as a percent of annual goal	0.0%	0.9%
Net first-year annual therms acquired to date as a percent of 8-year goal	0.0%	0.5%
Net cumulative therms acquired to date	-	4,446
Total Acquired Lifecycle Impacts To Date <sup>7</sup>		
Net Lifecycle kWh acquired to date	84,470,008	-
Net Lifecycle therms acquired to date	-	-
Committed <sup>8</sup> Impacts (not yet acquired) This Month		
Net First-year annual kWh committed this month	(83,997)	-
Net Lifecycle kWh committed this month	(949,166)	-
Net Utility Peak kW committed this month	(12)	-
Net first-year annual therms committed this month	-	-
Net Lifecycle therms committed this month	-	55,440
Funds committed at this point in time	119,011	-

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA	NYSERDA
Program Name	EmPower New York-Electric	EmPower New York- Gas
Program Type <sup>2</sup>	Low Income	Low Income
Overall Impacts (Acquired & Committed)		
Net first-year annual kWh acquired & committed this month	1,008,343	-
Net utility peak kW acquired & committed this month	(151)	-
Net First-year annual therms acquired & committed this month	-	4,446
Costs <sup>9</sup>		
Total program budget	26,780,000	9,732,684
General Administration	189,855	96,103
Program Planning	-	-
Program Marketing	-	-
Trade Ally Training	-	-
Incentives and Services	1,157,000	59,561
Direct Program Implementation	529,634	-
Evaluation	55,286	-
Total expenditures to date	10,971,795	225,862
Percent of total budget spent to date	41.0%	2.3%
Participation		
Number of program applications received to date	20,215	1,424
Number of program applications <i>processed</i> to date <sup>10</sup>	13,504	171
Number of processed applications <i>approved</i> to date <sup>11</sup>	9,406	17
Percent of applications received to date that have been processed	66.8%	12.0%
Carbon Emission Reductions (in tons)		
Total Acquired Net First-Year Carbon Emission Reductions To Date	4,081	26
Total Acquired Cumulative Net Carbon Emission Reductions To Date	-	26

NOTES: Please refer to the notes following Table A-1.

## WORKFORCE DEVELOPMENT PROGRAM

### Program Description and Background

The goals of the Workforce Development (WFD) Program are to address and overcome barriers to workforce training and to expand the existing energy efficiency training infrastructure across the state. These efforts will provide existing and emerging workers with the technical skills necessary to meet the needs of the portfolio of programs funded through the EEPs. Program goals will be achieved through the development and implementation of training initiatives developed through Training Partnership agreements with existing training providers including community colleges, Labor Unions, and other entities qualified to provide necessary skills for the emerging green economy. The WFD Program expects over 6,200 trained and certified participants during the first year of the expanded program, plus an additional 2,300 trained through the New York State Department of Labor's (NYS DOL) Career Pathway initiative. Other state and federal partnerships will be developed over the course of the program to maximize training resources. The program efforts are scheduled for the current 2010/2011 program year. Additional funding has been obtained through PON 1817.

### **1. Program Status**

PON 1816: Workforce Development & Training Partnerships for Energy Efficiency is currently open and is receiving proposals. By the end of June, 14 partnership proposals were approved, totaling nearly \$1.1 million in requested funding. More applications are expected. In June, WFD staff requested and was granted an extension from DPS to extend the funding timeline for PON 1816. The new schedule extends the deadline for Training Partnership applications from August 1, 2010 to December 31, 2011. For individuals seeking funding for professional certification in energy efficiency careers, the application deadline was extended from December 31, 2011 to May 30, 2012. Certifications must be from an approved list of occupations and training must be conducted by a recognized, credentialed provider such as the Building Performance Institute (BPI).

PON 1817: The Energy Efficiency Career Pathways Training and Technical Training solicitation has been released and numerous inquiries have been received to date. A large response to this solicitation is anticipated. The proposal due date is August 3, 2010.

Development of new learning sites continues. Both SUNY Canton and Ulster Community College have submitted plans to teach BPI recognized classes at other locations in their region, thus providing more training opportunities for building technicians.

### **Program Performance Goals**

- (a) Describe and discuss circumstances that may have an impact on the achievement of project performance goals (positive or negative).
  - Current economic circumstances remain a positive factor for achieving project performance goals. Currently a large labor pool is available, with many of its members seeking new job skills to enhance employment prospects.
  - Time is a challenge for achieving the goals of this Program, although the recently granted extension should help training partners and students to achieve their training and placement goals.

- Demands and expectations from organizations representing existing and emerging workers are very different and, at times, stakeholders representing these groups, have competing interests.
- (b) Describe and discuss other key aspects of program performance goals that were not discussed in (a)

No other changes to report.

- (c) Provide updates to the forecast of net energy and demand impacts. The forecast should be updated at least annually. Note and explain any discrepancies between the filed program goal and the latest forecast.

No changes to report.

## **2. Program Implementation Activities**

- (a) Marketing Activities [List and describe major accomplishments related to marketing. Describe work activities in both quantitative and qualitative terms. Provide copies of key marketing materials.]

During the second quarter, WFD staff conducted a number of diverse marketing and outreach activities to raise awareness of the new program. These activities ranged from attendance at career and job fairs to presenting lectures/forums to potential contractors/trainers/trainees, and included:

- Seven large events held, reached an estimated population of 1,023.
- Y2Kids Career A to Z fair, reaching an estimated audience of 4,000.
- Two industrial expositions reaching 200 and 250 respectively.
- NYS Senator Eric Adams Job fair, reaching an estimate of 300 people.

Trainings continued at a steady pace over the quarter in a number of energy efficiency certification areas such as Building Analyst, Envelope Professional, Cooling, and Heating Professional, among others. These trainings were generally held at community colleges, BOCES or school sites, or at a small number of dedicated green jobs training centers. In total, 87 trainings were completed this quarter. In addition, during the second quarter, a total of 714 students were trained at the Center for Energy Efficiency and Building Science Learning Centers (CEEBS).

- (b) Evaluation Activities

The draft detailed evaluation plan was provided to DPS in June for review. DPS comments were incorporated into a revised version that is expected to be resubmitted to DPS in August.

- (c) Other Activities [List and describe major accomplishments not captured in either the spreadsheet or this form. Describe work activities in both quantitative and qualitative terms.]

NYSERDA has been working with NYS Division of Housing and Community Renewal (DHCR) in allocation of ARRA funds to further workforce development. NYSERDA facilitated a grant of \$250,000 from DHCR's ARRA funding to each of four learning centers in the CEEBS network to



construct a “pressure house” on each campus. A pressure house is specially constructed house that uses strategically placed dampers and controls to create different symptoms and problems in the building. The pressure house is used to train building technicians taking preparatory classes for Building Performance Institute (BPI) certification. The pressure house can also be used for the field test portion of the BPI certification exam. The four learning centers who received the grant are: Hudson Valley CC, Broome CC, Erie CC, and SUNY Canton. The WFD staff continues to work on this.

In May, DHCR authorized the New York State Weatherization Directors Association (NYSWDA) to hire a project manager for the pressure house project. The project manager will work with all four pressure house locations to ensure that a quality and uniform product is constructed at each site. As of June this project manager continues to work with the four schools involved to finalize siting of the houses, features to be included, and other logistical matters.

### **3. Customer Complaints and/or Disputes**

There are no complaints and/or disputes at this time.

### **4. Changes to Subcontractors or Staffing**

There is no subcontractor or staffing changes for this project.

### **5. Additional Issues**

As noted in earlier reports, the NYS DOL proposal did not receive funding for its ARRA proposal. Nevertheless, NYSERDA continues seeking opportunities to leverage EEPS funding with other funding sources.

**Table A-13. Workforce Development Program Scorecard June 30, 2010**

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA
Program Name	Workforce Development Program
Program Type <sup>2</sup>	
Total Acquired First-Year Impacts This Month <sup>3</sup>	
Net first-year annual kWh acquired this month <sup>4</sup>	-
Monthly Net kWh Goal (based on net first-year <i>annual</i> <sup>5</sup> kWh Goal)	-
Percent of Monthly Net kWh Goal Acquired	0.0%
Net Peak <sup>6</sup> kW acquired this month	-
Monthly Net Peak kW Goal	-
Percent of Monthly Peak kW Goal Acquired	0.0%
Net First-year annual therms acquired this month	-
Monthly Net Therm Goal	-
Percent of Monthly Therm Goal Acquired	0.0%
Net Lifecycle kWh acquired this month	-
Net Lifecycle therms acquired this month	-
Net Other Monthly Savings (MMBtus) Acquired	
Coal	-
Kerosene	-
Oil	-
Propane	-
Total Acquired Net First-Year Impacts To Date	
Net first-year annual kWh acquired to date	-
Net first-year annual kWh acquired to date as a percent of annual goal	0.0%
Net first-year annual kWh acquired to date as a percent of 8-year goal	0.0%
Net cumulative first-year annual kWh acquired to date	-

<b>Program Administrator (PA) and Program ID<sup>1</sup></b>	<b>NYSERDA</b>
<b>Program Name</b>	<b>Workforce Development Program</b>
<b>Program Type<sup>2</sup></b>	
Net utility kW reductions acquired to date	-
Net utility peak kW reductions acquired to date as a percent of utility annual goal	0.0%
Net utility peak kW reductions acquired to date as a percent of 8-year goal	0.0%
Net NYISO peak kW reductions acquired to date	-
Net first-year annual therms acquired to date	-
Net first-year annual therms acquired to date as a percent of annual goal	0.0%
Net first-year annual therms acquired to date as a percent of 8-year goal	0.0%
Net cumulative therms acquired to date	-
Total Acquired Lifecycle Impacts To Date <sup>7</sup>	
Net Lifecycle kWh acquired to date	-
Net Lifecycle therms acquired to date	-
Committed <sup>8</sup> Impacts (not yet acquired) This Month	
Net First-year annual kWh committed this month	-
Net Lifecycle kWh committed this month	-
Net Utility Peak kW committed this month	-
Net first-year annual therms committed this month	-
Net Lifecycle therms committed this month	-
Funds committed at this point in time	344,076
Overall Impacts (Acquired & Committed)	
Net first-year annual kWh acquired & committed this month	-
Net utility peak kW acquired & committed this month	-
Net First-year annual therms acquired & committed this month	-
Costs <sup>9</sup>	
Total program budget	6,600,114
General Administration	565,621
Program Planning	-
Program Marketing	-

Program Administrator (PA) and Program ID <sup>1</sup>	NYSERDA
Program Name	Workforce Development Program
Program Type <sup>2</sup>	
Trade Ally Training	10,584
Incentives and Services	500
Direct Program Implementation	-
Evaluation	2,032
Total expenditures to date	1,185,864
Percent of total budget spent to date	18.0%
Participation	
Number of program applications received to date	-
Number of program applications <i>processed</i> to date <sup>10</sup>	-
Number of processed applications <i>approved</i> to date <sup>11</sup>	-
Percent of applications received to date that have been processed	0.0%
Carbon Emission Reductions (in tons)	
Total Acquired Net First-Year Carbon Emission Reductions To Date	-
Total Acquired Cumulative Net Carbon Emission Reductions To Date	-

**NOTES:** Please refer to the notes following Table A-1.

## ***Appendix B: Program Logic Model***

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The following page contains program theory and logic model diagram for NYSERDA's Energy Star Homes Program. This logic model diagram shows the linkages between activities, outputs and outcomes, and identifies potential external influences the program. The logic model depicts the program as it currently operates, including EEPS enhancements. The logic diagram presented here is at a slightly higher level than those available in the full program theory and logic model reports, aggregating some of the outcomes, in order to provide a logic model that is easier to read. The full program theory and logic model report is available by request and will soon be posted on NYSERDA's website.

**Inputs:**

- EEPS and SBC funding
- Staff resources and experience implementing SBC programs
- NYSERDA's credibility and relationships with key stakeholders and policy makers
- Existing awareness of NYSERDA among market actors
- Expertise of raters, trade allies, and contractors

## ENERGY STAR Homes Program

### Logic Model Diagram

