NYSERDA

New York State Energy Research and Development Authority

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2008 SEP 26 PM 2: 56

September 26, 2008

Honorable Jaclyn A. Brilling Secretary New York Public Service Commission Three Empire State Plaza Albany, New York 12223-1350

RE: Case 07-M-0548 Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio

Standard

Dear Secretary Brilling,

With regard to the Program Administrator Proposal filed on September 22, 2008 by the New York State Energy Research and Development Authority (NYSERDA) pursuant to the New York State Public Service Commission's June 23, 2008 *Order Establishing Energy Efficiency Portfolio Standard and Approved Programs* in Case 07-M-0548, Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard, NYSERDA provides the enclosed errata sheets, along with 25 copies. Ten courtesy copies have also been provided for the convenience of the Commissioners.

The errata modifications affect Section II (Overview of NYSERDA's Program Portfolio) in its entirety, and select pages of Sections III (Commercial and Industrial Programs) and Section IV (Programs for the Residential and Low-Income Sector) of the Proposal. With regard to Section III, errata modifications were made to Tables III–24, III–25, III-34, III-35, III-54, III-62, and III-63. With regard to Section IV, Table IV-30 was inadvertently omitted in the original filing.

I regret any inconvenience this may have caused. If you have any questions with regard to NYSERDA's Program Administrator Proposal, please contact me at (518) 862-1090, ext. 3233. Thank you.

Sincerely,

Bob Callender

Vice President for Programs

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Enclosures

Fax: (716) 842-0156

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II. OVERVIEW OF NYSERDA'S PROGRAM PORTFOLIO

1. NYSERDA PROGRAM PORTFOLIO

NYSERDA's Program Portfolio is designed to meet the cumulative efficiency savings target of not less than 693,901 MWh through 2011 as provided in Appendix 3, Table 10 of the June 23, 2008 Order. The portfolio includes programs that are designed to address electric measures, either as a new program or an enhancement of an existing, successful program; or to offer natural gas measures, either as a stand-alone program, or as a natural gas component of an existing or proposed electric program. Certain programs apply to multiple energy-using sectors. These aspects of NYSERDA's proposed portfolio are shown in Table II-1.

The commercial and industrial portion of NYSERDA's portfolio identifies a cost-effective array of 13 programs reflecting a combination of carefully chosen enhancements to proven programs and the establishment of innovative programs that can result in an expeditious accomplishment of the energy savings goals of the EEPS. New program designs have been incorporated to increase participation, avoid customer confusion, and shorten the process for receiving incentives.

The residential and low-income portion of NYSERDA's portfolio is comprised of a portfolio of 15 programs that build on successful programs established through the SBC and new programs and options that focus on maximizing electric savings. This portion of the portfolio identifies opportunities for achieving gas savings through comprehensive, whole-building programs. Of the programs proposed, six explicitly target lower income households (at or below 80 percent of the State Median Income or Area Median Income), accounting for 52% of the requested residential funding.

Three programs in NYSERDA's portfolio cut across sectors, providing reductions in electricity consumption and demand through more efficient electric transportation systems, improving control over energy demand through "Smart Grid" applications, and the development of a trained and competent workforce to deliver energy savings for all program administrators, Statewide. Although energy efficiency in residential and commercial buildings and industrial facilities will provide the bulk of the targeted savings, NYSERDA recognizes that much more energy savings can be achieved by looking at the infrastructure of our communities.

With the funding requested to make commitments through 2011, the Program Portfolio is projected to achieve 751,698 MWh and 8,680,750 MMBtu of savings by 2011, and an additional 272,748 MWh and 1,069,822 MMBtu by 2015.

Throughout the development of this portfolio, NYSERDA continued to collaborate with several of the State's investor-owned electric and gas utilities through joint meetings and conference calls, individual meetings and administrative proceeding forums. These discussions further informed the development of NYSERDA's proposed program portfolio and efforts to streamline program offerings, increase sharing of customer information, and further coordination of outreach and marketing activities.

2. NYSERDA'S PROGRAM PORTFOLIO BUDGET

NYSERDA is proposing a total additional program portfolio budget of \$611.5 million through 2011. Of that, \$190.5 million is allocated to fund programs for the commercial and industrial sector; \$305 million is allocated to the residential and low-income sector (with \$146.2 million allocated to the market rate sector and \$158.8 million to the low-income sector) and \$42.6 million to that portion of the portfolio that addresses multiple sectors. The budget includes \$73.4 million for program administration and evaluation.

Table II-1. NYSERDA Program Portfolio

	I	unds Requeste	d			
	Electric	Gas	Total	Cumulative Total MWh Savings	Cumulative Total MMBtu Savings	
		Commercial a	ind Industrial			
Advanced Burners	_	\$6,000,000	\$6,000,000		600,000	
Benchmarking	\$14,520,000		\$14.520,000	84,000	420.000	
Business Partners	\$9,510,000		\$9,510,000	70,533		
Existing Facilities	\$47,080,000	\$10,470,000	\$57.550,000	300,000	1.050,000	
Flex Tech Expansion		\$2,633,000	\$2,633,000		658,207	
Industrial Process and Efficiency		\$31,071,000	\$31.071.000		3,452.295	
Institutional Block RFP (Bidding Program)	\$10,905,840	\$2,558,160	.\$13,464,000	60,000	210,000	
Loan Fund	\$10,723,152	\$1.420,848	\$12,144,000	23,124	272,562	
New Construction		\$11,114,000	\$11,114,000		1,145,742	
Solar Thermal	\$300,000	\$600,000	\$900.000	120	1,260	
Statewide CHP	\$25,608,000		\$25,608,000	120,000	(810,000)	
Waste Energy Recovery	\$3,000,000	\$3,000,000	\$6,000,000	7,884	120,000	
Subtotal	\$121,646,992	\$68,867,008	\$190,514,000	665,661	7.120,066	
		Residential (Low Income)			
Assisted Home Performance		\$48.719.886	\$48,719,886	479	442,194	
Electric Reduction in Master –Metered Multifamily Buildings	\$26.892,000		\$26,892.000	51,177	15,207	
EmPower	-	\$27,450,000	\$27,450,000		274,320	
Geothermal Heat Pump System Incentives	\$3,960,000		\$3,960,000	18.312		
MFPP Expansion	\$10,216,800	\$37,303,200	\$47,520,000	38,112	475,956	
Solar Thermal Incentives	\$4,224,000		\$4,224,000	7.200	·	
Subtotal	\$45,292,800	\$113,473,086	\$158,765,886	115.280	1,207,677	
		Residential (Market Rate)			
Electric Reduction in Master-Metered Multifamily Buildings	\$17,928.000		\$17.928.000	34.119	10,137	
Energy Star Homes		\$24.110.000	\$24,110,000	1.724	907,969	
Geothermal Heat Pump System Incentives	\$3,960,000		\$3.960,000	18,309		
Green Homes	\$613,800	\$6,026,200	\$6,820,000	800	35,290	
Home Performance		\$43,155,000	\$43,155,000	969	693.968	

]	Funds Requeste	d		
	Electric	Gas	Total	Cumulative Total MWh Savings	Cumulative Total MMBtu Savings
MFPP Expansion	\$6,811,200	\$24,868,800	\$31,680,000	44,238	195,465
Power Management	\$3,000,000		\$3,000,000	46,365	
Remodel with Energy Star	\$11,367,000		\$11,367,000	13,311	
Solar Thermal Incentives	\$4,224,000		\$4,224,000	7,200	
Subtotal	\$47,904,000	\$98,340,000	\$146,244,000	167.035	1,842,829
-		Cross-Cutti	ng Programs	-	
Enhanced Electrified Rail	\$15,000,000		\$15,000,000	60.000	
Smart Grid	\$11.352,000		\$11,352,000	16,500	
Workforce Development	\$16,255,000		\$16,255,000		
Subtotal	\$42,607,000	\$0	\$42,607,000	76,500	
Program Total	\$257,450,792	\$280,680,094	\$538,130,886	1,024.476	10,170,572
Administration (7% of Total)	\$20,479,040	\$22,326,826	\$42,805,866		
Evaluation (5% of Total)	\$14,627,886	\$15,947,733	\$30,575,619		
Portfolio Total	\$292,557,718	\$318,954,652	\$611,512,370	1,024,476	10,170,572

3. PROJECTED ENERGY EFFICIENCY SAVINGS (MWH AND MMBTU) FROM NYSERDA'S PROGRAM PORTFOLIO

NYSERDA's program portfolio will result in both electricity (MWh) savings, as well as gas savings (MMBtu). The anticipated electricity savings results from NYSERDA's Program Portfolio for the years 2009 through 2015 are shown in Table II-2.

Table II-2. Anticipated Annual MWh Results from NYSERDA's Program Portfolio (2009-2015)

	2009	2010	2011	2012	2013	2014	2015	Cumulative Total
	<u> </u>		Commercial	Industrial				
Benchmarking	14,000	23,240	28,000	14,000	4,760	-		84,00
Business Partners	23,511	23,511	23,511	-	-	-		70,53.
Existing Facilities	25,000	50,000	100.000	100,000	25,000	-		300,00
Institutional Block RFP (Bidding Program)	-	24,000	36,000	-	-	-		60,00
Loan Fund	7,708	7,708	7,708		-	-		23,12
Solar Thermal	1	20	40	40	20	-		12
Statewide CHP	-	-	13,700	29,700	41.200	26,300	9,100	120,00
Waste Energy Recovery	-	2,628	2,628	2,628	-	-		7,88
Subtoial	70,219	131,077	211,587	146,368	70,980	26,300	9,100	665,66
		Re	side nt ial and	l Low-Incoi	ne			
Low-Income								
Assisted Home Performance (Gas)	145	159	175	-	-	-	-	47
Electric Reduction in MM MF Buildings	17,059	17,059	17,059	-	-	-	-	51,17
Geothermal Source Heat Pumps	6,104	6,104	6,104	-	-	-	-	18,3
MFPP Expansion	12,704	12,704	12,704	-	-	-	-	38,1
Solar Thermal Incentives	2,400	2,400	2,400	ı	-	-	-	7,20
Subtotal	38,412	38,426	38,442	- (-	•	_	115,28
Market Rate								
Electric Reduction in MM MF Buildings	11,373	11,373	11.373	,	-	-	-	34,1
Energy Star Homes (Gas)	496	546	682					1.7.
Geothermal Source Heat Pumps	6.103	6,103	6,103	-	-	·	-	18,30
Green Homes	-	400	400	<u> </u>	-	•	-	8.
Home Performance (Gas)	294	322	353	-	•	-	-	90
MFPP Expansion	14,746	14,746	14,746	-			-	44,2,
Power Management	12,505	15,455	18,405					46,30
Remodel with Energy Star	3.651	4,4 <u>5</u> 8	5.202	-	- -	_		13,3
Solar Thermal Incentives	2.400	2.400	2.400		-		-	7,20

	2009	2010	2011	2012	2013	2014	2015	Cumulative Total
Subtotal	51,568	55,803	59,664	-	-	-		167,035
Residential Subtotal	89,980	94,229	98,106	-	-	-		282,315
		. (Cross Cuttir	ig Programs	·			
Enhanced Electrified Rail	-	20,000	20,000	20,000	-	-	-	60,000
Smart Grid	-	6,500	10,000	-	-	-	-	16,500
Subtotal	-	26,500	30,000	20,000	-	-	-	76,500
TOTAL	163,149	251,806	336.743	166,368	70,980	26,300	9,100	1,024,476

The anticipated natural gas savings results from NYSERDA's Program Portfolio for the years 2009 through 2015 are shown in Table II-3.

Table II-3. Anticipated Annual MMBtu Results from Requested Funding (2009 – 2015)

	2009	2010	2011	2012	2013	2014	2015	Cumulative Total
——————————————————————————————————————		1	Comn	nercial Indust	rial	·	<u>'</u>	
Advanced Burners	-	200,000	200,000	200,000	-	-	-	600,000
Benchmarking	70,000	116,200	140,000	70,000	23,800			420,000
Existing Facilities	90,000	175,000	350,000	350,000	85,000	-	-	1,050,000
Flex Tech Expansion (Gas)	26,118	73,596	134,111	161,908	139,395	80.103	42,976	658,207
Industrial Process and Efficiency (Gas)	503,460	813.328	1,056,365	876,558	202,284	-	-	3,452,295
Institutional Block RFP (Bidding Program)	-	84,000	126,000		-	-	-	210,000
Loan Fund	90,854	90,854	90,854	-	-	-	-	272,562
New Construction (Gas)	103,117	137,489	263,521	297,893	252,063	91,659	-	1,145,742
Solar Thermal	-	210	420	420	210	-	-	1,260
Statewide CHP*	-		(92,475)	(200,475)	(278,100)	(177,525)	(61,425)	(810,000)
Waste Energy Recovery	-	40,000	40,000	40,000	-	-	-	120,000
Subtotal	883,539	1,730,977	2,308,796	1,796,304	424,652	(5,763)	(18,449)	7,120,066
			Resident	ial and Low-I	ncome			
Low-Income								
Assisted Home Performance (Gas)	134,111	146,986	161,097	-	-	-	-	442,194
Electric Reduction in MM MF Buildings	5.069	5,069	5,069	-	-	-	-	15,207
EmPower (Gas)	45,720	91,440	91,440	45,720	-	-	-	274,326
MFPP Expansion	158,652	158,652	158,652	-	-	-	-	475,950
Subtotal	343,552	402,147	416,258	45,720	-	_	-	1,207,677

	2009	2010	2011	2012	2013	2014	2015	Cumulative Total
Electric Reduction in MM MF Buildings	3,379	3,379	3,379	-	-	-	-	10,137
Energy Star Homes (Gas)	259,605	288,162	360,202	-	-	-	-	907,969
Green Homes		17,645	17,645	-	-		-	35.290
Home Performance (Gas)	210,471	230,676	252,821		-	-	-	693,968
MFPP Expansion	65,155	65,155	65,155	-	-	-	, -	195,465
Subtotal	538,610	605,017	699,202	-		-	-	1,842,829
Residential Subtotal	882,162	1,007,164	1,115,460	45,720	-	-	-	3,050,506
TOTAL	2,343,016	2,959,078	3,378,656	895,466	198,568	(5,763)	(18,449)	10,170,572

NOTE: Sums may not total due to rounding.

4. OVERARCHING EVALUATION PLAN FOR NYSERDA PROGRAM PORTFOLIO

The June 23, 2008 EEPS Order called for NYSERDA to file, within 60 days, a Transition Plan identifying steps that will be taken to enhance NYSERDA's program evaluation efforts. The Order specifically directed NYSERDA to describe planned enhancements to evaluation, measurement and verification, including (a) creation of a uniform database allowing more comparable evaluation of programs, and (b) increased detachment of NYSERDA from evaluation contractors, and increased involvement of DPS Staff in oversight of evaluation. The NYSERDA Transition Plan contains a full discussion of these issues which are relevant to the evaluation of programs proposed in this filing.⁴

4.1. EVALUATION REPORTING AND BENEFIT COST ANALYSIS

Each year, NYSERDA and its evaluation contractors will prepare three quarterly reports and one annual report covering both the SBC-funded **New York Energy \$mart**SM Program and EEPS portfolio progress to date. NYSERDA will further consult with DPS Staff and the EEPS Evaluation Advisory Group (EAG) to modify the existing format of the SBC Program quarterly and annual reports, as needed, in order to also fulfill reporting needs for EEPS programs. The quarterly and annual reports will show NYSERDA's tracking or allocation of committed funds, spending, and energy savings to both SBC and EEPS.

^{*}Because the electricity saved by the DG/CHP projects replaces electricity previously 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.

¹ NYSERDA, *NYSERDA Transition Plan for Enhancing Program Evaluation*, Prepared for the New York State Public Service Commission, Case 07-M-0548 Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard, filed August 22, 2008.

The quarterly and annual reports will include: financial status, program progress indicators, energy savings⁵, peak demand reductions, customer bill savings, and progress toward goals. As available from program-specific evaluation work, recommendations made by NYSERDA's evaluation contractors and NYSERDA's response will also be included. NYSERDA will also make available copies of all detailed reports prepared by evaluation contractors to support the quarterly and annual reports, and will work with DPS Staff, the EAG, and the EEPS evaluation advisor consultant, as needed, on the development of these detailed reports.

Quarterly reports will be provided to the Commission within 60 days of the end of each calendar quarter. The annual report will substitute for the fourth quarterly report, summarizing program and portfolio progress throughout the calendar year. The annual report will be submitted to the Commission within 90 days of the end of the calendar year.

Monthly status "scorecard" reports will also be provided to DPS by NYSERDA. These reports will document key, summary level information on program funding, participants, and energy savings. While NYSERDA will endeavor to provide the most accurate information possible in the scorecard reports, they will not reflect the same adjustments and quality controls as the quarterly and annual evaluation reports.

Detailed reports presenting results from evaluation studies conducted by NYSERDA's evaluation contractors will be provided to DPS and the EAG upon completion. NYSERDA also expects to involve DPS and the EAG in the evaluation process leading up to the delivery of these detailed reports. Final reports will align with requirements set forth in the DPS evaluation guidelines, and will include: methodology, key results, recommendations, summary and conclusions, and appendices with detailed documentation.

Once per year, NYSERDA will update benefit/cost ratios (at a minimum, Total Resource Cost test) for each major program and for the entire portfolio of SBC-funded New York Energy \$mart^SM and EEPS programs. NYSERDA will conduct benefit/cost analysis for its programs in a manner consistent with other program administrators, as appropriate. NYSERDA has worked with its evaluation contractors over the years to conduct benefit/cost analyses on the SBC program, and has knowledgeable staff and a tool in place to accomplish benefit/cost analyses for all of its SBC and EEPS programs. NYSERDA is prepared to make adjustments to its current practice should DPS Staff or the EAG decide that alternative methods, tools, or inputs are superior or would foster greater consistency among program administrators.

4.2. EVALUATION PLANS

Background Information

This filing includes preliminary, specific evaluation plans for each of NYSERDA's proposed programs or program components. Each specific evaluation plan was developed based on NYSERDA's current plans for design and administration of the programs.

These evaluation plans have been prepared using best efforts and allow NYSERDA and its independent evaluation contractors flexibility to adapt the approaches that best suit the program as implemented, the final evaluation protocols, and the ultimate available funding, after accounting for overarching studies and other higher-level evaluation costs. NYSERDA's estimated evaluation budget for each program will

⁵ NYSERDA will report cumulative annual energy savings for each program and the portfolio of programs. Cumulative annual savings will be adjusted to reflect the results of measurement and verification and attribution (net-to-gross) evaluation studies conducted in compliance with the evaluation protocols developed by the DPS Staff. For programs receiving both EEPS and SBC funding, energy savings will be allocated to each funding source.

include a modest set-aside for developing a full evaluation plan with DPS Staff and EEPS EAG involvement. NYSERDA will endeavor to comport with evaluation guidelines and protocols set forth by DPS Staff. NYSERDA will also reference the guidelines put forth by the American Evaluation Association for conducting ethical evaluations.⁶

Budget Considerations

With regard to the evaluation of the proposed programs, NYSERDA arrived at approximate budgets for those efforts based on a consideration of: each program's expected spending and energy savings; possible program participation levels; expected distribution of savings across the population of participants; nature of each program's design and intervention strategies; and, where applicable, prior evaluation methods, results, level of rigor/reliability attained, and remaining uncertainty. Based these considerations, allocations for program-specific evaluation efforts are not necessarily equal to 5% across the proposed programs and program elements. Furthermore, given the current uncertainty about overarching needs for evaluation funding, and without a full picture of future program offerings, the program-specific evaluation plans contained herein are intended to serve as illustrative examples at this early stage in the process. To the extent that the proposed programs represent expansions of current programs, those programs will be evaluated in total (i.e., all funding sources). Therefore, the preliminary, program-specific evaluation plans and budgets for some programs will likely be expanded to address all funding sources in the same manner described, and through a single comprehensive evaluation effort. Program impacts will then be allocated to each funding source.

Staff/Consultant Resources and Ethical/Operational Considerations

In order to provide timely evaluation of the EEPS programs, and to provide for cost-effective integration of the enhanced SBC evaluation with the EEPS program evaluations, NYSERDA plans to utilize its current group of evaluation contractors to the extent possible. Current evaluation contracts will be modified, as necessary, to allow for the conduct of this additional work. Should other evaluation contractor support be necessary to provide for the enhanced level of evaluation, NYSERDA will use its competitive procurement process to obtain these resources. However, selection of new contractors may alter the ultimate timing of evaluations proposed herein.

NYSERDA's current evaluation contractors are organized into three specialty evaluation teams covering: impact evaluation, process evaluation, and market characterization and assessment. All of the major program-specific evaluation activities covered by the DPS evaluation guidelines are represented by these teams. NYSERDA also currently has a survey data collection contractor that serves the large-scale data collection needs of each of the three specialty evaluation contractor teams. Each of NYSERDA's evaluation contractor teams was competitively selected using NYSERDA's rigorous solicitation process.

Management of evaluation contractors, and overall management of the evaluation effort, will be conducted by NYSERDA's Energy Analysis group. The Energy Analysis group has no program administration or implementation functions, and is organizationally separate from NYSERDA's other groups that perform these functions. NYSERDA and its evaluation contractors follow the American Evaluation Association's Guiding Principles for Evaluators. These principles call for: systematic

⁶ American Evaluation Association (AEA), Guiding Principles for Evaluators, <u>www.eval.org</u>. See source for a full explanation of these guiding principles.

⁷ NYSERDA's current impact evaluation team is responsible for measurement and verification, net-to-gross analysis, research and development impact evaluation, and assisting with benefit/cost analysis.

inquiry, competence, integrity, honesty, respect for people, and responsibility for general and public welfare.

5. INDEPENDENT PROGRAM ADMINISTRATOR PROPOSALS CONSIDERED BY NYSERDA

Section 6 of this Proposal provides information on the independent program administer proposals received by NYSERDA and the process for their evaluation. NYSERDA issued a Program Opportunity Notice (PON) to provide a vehicle for independent program administrators to submit proposals and for NYSERDA to evaluate any such proposals. The PON was a competitive solicitation that sought proposals for innovative programs that would not duplicate programs currently being offered by NYSERDA, or the utilities, or assigned to NYSERDA or utilities in the June 23, 2008 Order. The selection criteria stated in the PON were adopted from the June 23, 2008 Order as contained in Appendix 3.

In response to the PON, twelve proposals were submitted to NYSERDA and reviewed by a Technical Evaluation Panel (TEP). The TEP recommendations were submitted to NYSERDA's Management Review Process and two proposals, from EnerNoc, Inc. and EnSave, Inc., were found to merit further investigation and are attached as Appendices B and C to this Proposal. NYSERDA has notified all proposers as to their status of inclusion in or omission from this filing. No funding has been included in this Program Proposal to accommodate the two proposals found to merit further investigation.

Table III-24. Existing Facilities Program — Total Program Expenditures (Projected and net of administration and evaluation) 2009-2015

Annual EEPS Spending	2009	2010	2011	2012	2013	2014	2015	Total
	\$4.20M	\$8.40M	\$17.80M	\$17.80M	\$7.20M	\$2.15M	0	\$57.55M
Projected Outreach/Mar	keting cos	ts: \$1.85M	in 2009; \$	1.05M in 20	010; \$553,	120 in 201	1.	

Table III-25. Existing Facilities Program - MWh Impacts (Projected) 2009-2015

	2009	2010	2011	2012	2013	2014	2015
Annual Savings Installed in the Current Year	25,000	50,000	100,000	100,000	25,000	0	0
Annual Savings Installed in Prior Years	n/a	25,000	75,000	175,000	275,000	300,000	300,000
Cumulative Annual Savings	25,000	75,000	175,000	275,000	300,000	300,000	300,000

Table III-26. Existing Facilities Program — Natural Gas Program Expenditures (Projected and net of evaluation and administration) 2009-2015

Annual EEPS Spending	2009	2010	2011	2012	2013	2014	2015	Total
	\$1M	\$1.9M	\$3.6M	\$3.4M	\$.57M	0	0	\$10.47 M
Projected Outreach/Marl	keting c	osts: \$100	0,000 in 2	009; \$50,	000 in 20	10; \$35	,260 in	2011.

Table III-27. Existing Facilities Program — Natural Gas Installed MMBtu Impacts (Projected) 2009-2015

	2009	2010	2011	2012	2013	2014	2015
Annual Savings Installed in the Current Year	90,000	175,000	350,000	350,000	85,000	0	0
Annual Savings Installed in Prior Years	n/a	90,000	265,000	615,000	965,000	1,050,000	1,050,000
Cumulative Annual Savings	90,000	265,000	615,000	965,000	1,050,000	1,050,000	1,050,000

NYSERDA has developed initial evaluation plans with the intention of providing the necessary rigor and reliability for metrics used by the NYISO and transmission and distribution system planners. NYSERDA will continue to work with DPS Staff and the EEPS Evaluation Advisory Group to devise final evaluation

Table III-34. Loan Fund – Total Program Expenditures (Projected and net of administration and evaluation) 2009-2015

Annual EEPS Spending	2009	2010	2011	2012	2013	2014	2015	Total
Tamana ZZI S Spending	\$4.05M	\$4.05M	\$4.05M	0	0	0	0	\$12.14M

Projected Outreach/Marketing costs: \$0.24M in 2009; \$0.24M in year 2010; \$0.24M in 2011.

Table 111-35. Loan Fund — Installed MWh Impacts (Projected) 2009-2015

	2009	2010	2011	2012	2013	2014	2015
Annual Savings Installed in the Current Year	7,708	7,708	7,708	0	0	0	0
Annual Savings Installed in Prior Years	0	0	0	0	0	0	0
Cumulative Annual Savings	7,708	15,416	23,124	23,124	23,124	23,124	23,124

Table III-36. Loan Fund – Natural Gas Program Expenditures (Projected and net of administration and evaluation) 2009-2015

Annual EEPS Spending	2009	2010	2011	2012	2013	2014	2015	Total
Annual 1221 5 Spending	\$0.47M	\$0.47M	\$0.47M	0	0	0	0	\$1.421M

Projected Outreach/Marketing costs: \$0.03M in 2009; \$0.03M in 2010; \$0.03M in 2011.

Table III-37. Loan Fund - Natural Gas Installed MMBtu Impacts (Projected) 2009-2015

	2009	2010	2011	2012	2013	2014	2015
Annual Savings Installed in the Current Year	90,854	90,854	90,854				
Annual Savings Installed in Prior Years	n/a						
Cumulative Annual Savings	90,854	181,708	272,562				

NYSERDA has developed initial evaluation plans with the intention of providing the necessary rigor and reliability for metrics used by the NYISO and transmission and distribution system planners. NYSERDA will continue to work with DPS Staff and the EEPS Evaluation Advisory Group to devise final evaluation plans that meet established protocols and produce results that can be used as inputs for system planning and forecasting.

and system load factor by solar thermal hot water system in commercial/industrial applications will vary based on site. Due to the anticipated small number of projects, program results could not be relied upon by T&D system planners.

Table III-53. Solar Thermal Program -- Total Program Expenditures (Projected and net of administration and evaluation) 2009-2015

	2009	2010	2011	2012	2013	2014	2015
Annual EEPS Spending	\$300,000	\$300,000	\$300,000	0	0	0	\$900,000
Note: no marketing.							

Table III-54 Solar Thermal Program -- Justalled MWh Impacts (Projected) 2009-2015

	2009	2010	2011	2012	2013	2014	2015
Annual Savings installed in current year	0	20	40	40	20	0	0
Annual Savings installed in prior years	n/a	0	20	60	100	120	120
Cumulative Annual Savings	0	20	60	100	120	120	120

Table III-55 Solar Thermal Program - Natural Gas Program Expenditures (Projected and net of administration and evaluation) 2009-2015

	2009	2010	2011	2012	2013	2014	2015
Annual EEPS	\$0.2M	\$0.2M	\$0.2M	()	0	0	\$0,6 M
_Spending							
Note: no marketing							

Table III-56 Solar Thermal Program - Natural Gas Installed MMBtu Impacts (Projected) 2009-2015

	2009	2010	2011	2012	2013	2014	2015
Annual Savings installed in current year	0	210	420	420	210	0	0
Annual Savings installed in prior years		0	210	630	1,050	1,260	1,260
Cumulative Annual Savings		210	630	1,050	1,260	1,260	1,260

NYSERDA has developed initial evaluation plans with the intention of providing the necessary rigor and reliability for metrics used by the NYISO and transmission and distribution system planners. NYSERDA will continue to work with DPS Staff and the EEPS Evaluation Advisory Group to devise final evaluation plans that meet established protocols and produce results that can be used as inputs for system planning and forecasting.

Program Schedule.

The Program will begin in the first quarter of 2009 with a one-year lag before equipment is installed and operational. The Program will operate for the 2009-2011 period.

9.2. DEMAND AND REDUCTION SYSTEM BENEFITS.

Waste Energy Recovery systems will displace electric-resistance heating or electric-driven cooling, or to produce electricity on-site, and thereby yield savings of grid-supplied electric energy and possibly summertime grid demand reduction. Because of the expected small number of projects, program results could not be relied upon by T&D system planners.

Table III-62. Waste Energy Recovery Program -- Total Program Expenditures (Projected and net of administration and evaluation) 2009-2015 []

	2009	2010	2011	2012	2013	2014	2015	Total			
Annual EEPS Spending	\$2M	\$2M	\$2M	0	0	0	0	\$6M			
Note: Does not include marketing.											

Table III-63. Waste Energy Recovery Program -- Installed MWh Impacts (Projected) 2009-2015

	2009	2010	2011	2012	2013	2014	2015
Annual Savings installed in current year	0	2,628	2,628	2,628	0	0	0
Annual Savings installed in prior years	n/a	0	2,628	5,256	7,884	7,884	7,884
Cumulative Annual Savings	0	2,628	5,256	7,884	7,884	7,884	7,884

Table III-64 Waste Energy Recovery Program – Natural Gas Program Expenditures (Projected and net of administration and evaluation) 2009-2015

	2009	2010	2011	2012	2013	2014	2015	Total		
Annual EEPS Spending	\$1.0M	\$1.0M	\$1.0M	0	0	0	0	\$3.0M		
Note: Does not include marketing										

Table IV-29. Projected Total Program Expenditures – Power Management Pilot Program (2009-2015)

	2009	2010	2011	2012	2013	2014	2015	Total
Annual EEPS Spending	\$1M	\$1M .	\$1M	O	0	0	0	\$3M

Projected Outreach/Marketing costs: \$250,000 in 2009, 2010, and 2011.

Table IV-30. Projected Installed MWh Impacts - Power Management Pilot Program (2009-2015)

	2009	2010	2011	2012	2013	2014	2015
Annual Savings installed in the current year	12,505	15,455	18,405	0	0	0	0
Annual Savings installed in prior years	n/a	12,505	27,960	46,365	46,365	46,365	46,365
Cumulative Annual Savings	12,505	27.960	46.365	46,365	46,365	46,365	46,365

NYSERDA has developed initial evaluation plans with the intention of providing the rigor and reliability necessary for metrics to be used by the NYISO and transmission and distribution system planners. NYSERDA will continue to work with DPS Staff and the EEPS Evaluation Advisory Group to devise final evaluation plans that meet established protocols and produce results that can be used as inputs for system planning and forecasting.

<u>Market Segment Need</u>. Early-adopters will be targeted to participate in the PMPP due to a general interest with new technology, willingness to experiment and to participate in follow-up marketing research on the effectiveness of the new technology. Underserved markets, such as low-income consumers and renters, will also be targeted. NYSERDA has partnerships with several power management product manufacturers and retailers, however, additional partners will continue to be sought, as well as new potential retail locations.

<u>Coordination</u>. Coordination with utilities to implement, monitor and evaluate the Program is a very important component of the program. California is the only other state of which NYSERDA is aware that is considering power management. New York State has an opportunity to be a leader in this emerging technology area and to develop a real demand for power management tools in its consumer products market.

<u>Co-Benefits</u>. Building on the primary benefit of the Program, the introduction of power management into the residential market, co-benefits of the program are the spillover of energy efficiency behaviors to other aspects of the daily life of consumers as a result of increased awareness and education, which could potentially lead to the use of "value-added" benefits such as using power management devices to control household systems that provide greater security (such as lighting or alarm systems) to the occupants.

<u>Portfolio Balance</u>. This Program will benefit New York by increasing demand for power management tools in the retail consumer products market. Also, certain power management systems can be installed as permanent measures in new construction, or as add-on wireless devices during home remodeling. The upstream and mid-stream aspect of the program will make such products more readily available in the marketplace for such projects.