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STATE OF NEW YORK DEPARTMENT OF PUBLIC SERVICE

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August 29, 2007

Jaclyn A. Brilling
Secretary to the Commission
New York State Department of Public Service
3 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:

Please accept for filing in the above-referenced proceeding an original and five (5) copies of the Department of Public Service Staff Preliminary Proposal for Energy Efficiency Program Design and Delivery, submitted herewith. This document has also been served electronically via the listserve established in this proceeding.

Respectfully submitted,

John C. Graham
Assistant Counsel

Residential New Construction (1-4 family) Expansion

Version date: 8/28/07

	Item	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Number of customers eligible	24,694	24,990	25,290	25,594	25,901	26,212	26,526	26,844	27,139	27,450	27,762	28,073	28,382	28,691	28,999	29,308	29,620	29,929	30,237	30,547	30,856	31,166	31,475
2	Participation rate (% eligible who participate)	15%	19%	23%	27%	31%	35%	39%	43%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%
	Basecase (2007)	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%
	Incremental increase	4%	8%	12%	16%	20%	24%	28%	32%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
3	Incremental number of participants	988	1,999	3,035	4,095	5,180	6,291	7,427	8,590	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	kWh saved/participant	938	950	975	500	525	550	575	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600
5	kW saved/participant (summer peak)	0.14	0.14	0.14	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
6	therms saved/participant	674	700	725	375	400	425	450	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475
7	Direct program operator costs/participant (2007$)	2,000	1,900	1,800	850	850	850	850	850	850	850	850	850	850	850	850	850	850	850	850	850	850	850	850
8	Participant costs per participant (2007$)	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
9	Marketing and administrative costs (% of row x)	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
10	Incremental program costs (millions)	4.3	8.6	12.6	12.4	15.6	19.0	22.4	25.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	Incremental GWh saved from current year installations	0.9	1.9	3.0	2.0	2.7	3.5	4.3	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	Incremental MW saved from current year installations	0.1	0.3	0.4	0.3	0.4	0.4	0.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Incremental billion Btu saved from current year installations	67	140	220	154	207	267	334	408	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	Incremental GWh saved from current & prior year installations	0.9	2.8	5.8	7.8	10.6	14.0	18.3	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4
15	Incremental MW saved from current & prior year installations	0.1	0.4	0.8	1.1	1.5	1.9	2.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
16	Incremental billion Btu saved from current & prior year installations	67	207	427	580	787	1,055	1,389	1,797	1,797	1,797	1,797	1,797	1,797	1,797	1,797	1,797	1,797	1,797	1,797	1,797	1,797	1,797	1,797
17	Average measure life (years)	24																						
18	Total Avoided Cost (millions 2007$)	0.6	1.8	3.6	4.9	6.6	8.8	11.6	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
19	Electricity	0.1	0.2	0.4	0.5	0.7	0.9	1.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
20	Natural Gase	0.5	1.5	3.2	4.4	5.9	7.9	10.4	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
21	Discounted Benefits (millions 2007$)	0.6	1.7	3.3	4.4	5.8	7.5	9.7	12.2	11.9	11.6	11.3	11.0	10.7	10.4	10.2	9.9	9.7	9.4	9.2	9.0	8.7	8.5	8.3
22	Electricity	0.1	0.2	0.4	0.5	0.6	0.8	1.0	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9
23	Natural Gase	0.5	1.5	3.0	3.9	5.2	6.8	8.7	11.0	10.7	10.4	10.1	9.9	9.6	9.4	9.2	8.9	8.7	8.5	8.3	8.0	7.8	7.6	7.4
24	Discounted Costs (millions 2007$)	4.2	8.1	11.7	11.2	13.8	16.3	18.7	21.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	Present-Valued Benefits	194.9																						
26	Electricity	19.8																						
27	Natural Gas	175.1																						
28	Present-Valued Costs	105.1																						
29	Net Present Value (millions 2007$)	89.8																						
30	Benefit/Cost Ratio	1.9																						

Notes (tied to row numbers in left column):

1 In 2006, the Census Bureau estimates 30,906 building permits issued for 1-4 unit homes. We take 85% of this, since not all permits result in completions. We also multiply by 94% to exclude the LIPA service area which in the first half of 2007 accounted for 6% of NYS permits (Census data). We assume the same number of new homes in 2008 (2007 is running a little lower). Thereafter we assume growth of 1.2%/year, in line with historic Dodge data.
2 Energy Star reports a 13% participation rate in NYS in 2006 for single-family. We assume this increases to 16% in 2007 but then multiply by 2/3's to account for the fact that single-family are 2/3's of 1-4 unit new homes per Census Bureau data. Program operators in NJ and VT report rates of about 25% and 43% respectively in 2006. EPA estimates a 57% participation rate in Iowa in 2006.
3 Row 1 times Row 2
4 First year figure derived from New York Energy $mart Program Evaluation and Status Report, May 2006. NYSERDA program staff estimate they can gradually increase this by about 25 kWh/year and 25 therms/yr. Savings and costs reduced 50% come 2011 since substantial savings will be captured by new building code.
5 Same as for Row 4 but we do not assume an increase in kW savings from year to year.
6 Same as for Row 4.
7 Estimates provided by NYSERDA program staff based on results in recent years for this program. Assume costs reduced 50% come 2011 since substantial savings will be captured by new building code.
8 Estimate by NYSERDA for current program.
9 Rough estimate of ACEEE and NYSERDA staff.
10 Row 3 * Row 7 * (1 + Row 9)
11 Row 3 * Row 4 / 1,000,000 kWh/Gwh
12 Row 3 * Row 5 / 1000 kW/MW
13 Row 3 * Row 6 / 10,000 therms/billion Btu
14 Row 11 + Row 14 from previous year
15 Row 12 + Row 15 from previous year
16 Row 13 + Row 16 from previous year
17 NYSERDA evaluations estimate 18 years for electric savings and 30 years for gas savings. We take midpoint.

Very Preliminary Draft Subject to Change and Do Not Quote

Residential Central Air Conditioning

Version date: 8/28/07

Item	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1 Annual unit sales	113,333	115,600	117,912	120,270	122,676	125,129	127,632	130,184	132,423	134,889	137,351	139,805	142,245	144,670	147,088	149,515	151,982	154,412	156,841	159,272	161,708	164,146	166,585
2 Participation rate (% eligible who participate)	6%	12%	18%	24%	30%	32%	34%	36%	0%	0%	0%	0%	0%	0%	0%	-5%	0%	0%	0%	0%	0%	0%	0%
3 Annual number of participants	6,800	13,872	21,224	28,865	36,803	40,041	43,395	46,866	0	0	0	0	0	0	0	(6,800)	-	-	-	-	-	-	-
4 kWh saved/participant	533	533	533	533	533	533	533	533	533	533	533	533	533	533	533	533	533	533	533	533	533	533	533
5 Ratio of kW/kWh savings	Not needed for this program																						
6 kW saved/participant (summer peak)	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17
7 therms saved/participant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Direct program operator costs/participant	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550
9 Participant costs per participant	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10 Marketing and administrative costs (% of row x)	50%	50%	50%	50%	50%	50%	50%	50%	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11 Incremental program costs (millions)	5.6	11.4	17.5	23.8	30.4	33.0	35.8	38.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12 GWh saved from current year installations	3.6	7.4	11.3	15.4	19.6	21.3	23.1	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13 MW saved from current year installations	8.0	16.2	24.8	33.8	43.1	46.8	50.8	54.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14 Billion Btu saved from current year installations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15 GWh saved from current & prior year installations	3.6	11.0	22.3	37.7	57.3	78.7	101.8	126.8	126.8	126.8	126.8	126.8	126.8	126.8	126.8	119.5	112.1	100.8	85.4	65.8	44.5	21.4	-3.6
16 MW saved from current & prior year installations	8.0	24.2	49.0	82.8	125.8	172.7	223.5	278.3	278.3	278.3	278.3	278.3	278.3	278.3	278.3	262.4	246.2	221.3	187.6	144.5	97.6	46.9	-8.0
17 Billion Btu saved from current & prior year installations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18 Average measure life (years)	15																						
19 Total Avoided Cost (millions 2007$)	0.9	2.9	6.1	10.6	16.7	22.5	28.7	35.5	38.2	39.6	40.8	41.6	42.6	43.6	44.5	42.2	39.8	35.9	30.3	23.4	15.8	7.6	-1.3
20 Electricity	0.9	2.9	6.1	10.6	16.7	22.5	28.7	35.5	38.2	39.6	40.8	41.6	42.6	43.6	44.5	42.2	39.8	35.9	30.3	23.4	15.8	7.6	-1.3
21 Natural Gase	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22 Discounted Benefits (millions 2007$)	0.9	2.8	5.7	9.5	14.6	19.3	24.0	28.9	30.3	30.6	30.7	30.5	30.5	30.4	30.3	27.9	25.7	22.5	18.6	14.0	9.2	4.3	-0.7
23 Electricity	0.9	2.8	5.7	9.5	14.6	19.3	24.0	28.9	30.3	30.6	30.7	30.5	30.5	30.4	30.3	27.9	25.7	22.5	18.6	14.0	9.2	4.3	-0.7
24 Natural Gase	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 Discounted Costs (millions 2007$)	5.5	10.9	16.2	21.5	26.7	28.3	29.9	31.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26 Present-Valued Benefits	440.4																						
27 Electricity	440.4																						
28 Natural Gas	0.0																						
29 Present-Valued Costs	166.6																						
30 Net Present Value (millions 2007$)	273.8																						
31 Benefit/Cost Ratio	2.6																						

Notes (tied to row numbers in left column):

1 According to industry experts, approximately 200,000 central AC & HP sold in NYS in 2006. We estimate that half of these are downstate outside of LIPA (LIPA alone is just over 30,000 units/yr) but then multiply by 85% to exclude new Energy Star homes so as not to double-count savings. We estimate sales are growing at roughly 4%/yr (based on limited LIPA data) due to growing installations in new and existing homes.
2 In 2006, NJ had a participation rate of about 11-13%, right after the new federal efficiency standard went into effect. In earlier years, the participation rate was as high as 30%. We assume a ramp-up to 30% in year 5 and then more modest increases thereafter.
3 Row 1 times Row 2
4 Preliminary LIPA estimate for 2007 program. This is for a SEER 15 unit with proper installation. Savings are more for SEER 16, less for 14.
5 Not needed.
6 Same as Row 4.
7 No gas savings.
8 LIPA provides rebates of $250-600 per AC or HP plus $150 for qualify installation. We estimate the average equipment rebate is $400, the middle tier.
9 Not available.
10 Rough ACEEE estimate. This program includes extensive contractor training and marketing.
11 Row 3 * Row 8 * (1 + Row 10)
12 Row 3 * Row 4 / 1,000,000 kWh/Gwh
13 Row 3 * Row 5 / 1000 kW/MW
14 Row 3 * Row 6 / 10,000 therms/billion Btu
15 Row 12 + Row 15 from previous year
16 Row 13 + Row 16 from previous year
17 Row 14 + Row 17 from previous year
18 LIPA estimate.

Home Performance with Energy Star Expansion

Version date: 8/28/07

Item	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1 Number of customers eligible	Difficult to determine																						
2 Participation rate (% eligible who participate)	Not Applicable																						
3 Annual number of participants	5,500	6,500	8,000	10,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Baseline -- estimated participants in 2007	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500
Incremental participants	1,000	2,000	3,500	5,500	7,500	7,500	7,500	7,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 kWh saved/participant	1,057	1,100	1,150	1,200	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250
5 kW saved/participant (summer peak)	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
6 therms saved/participant	465	485	505	525	545	545	545	545	545	545	545	545	545	545	545	545	545	545	545	545	545	545	545
7 Direct program operator costs/participant	2,800	2,600	2,400	2,200	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
8 Participant costs per participant	3,407	3,407	3,407	3,407	3,407	3,407	3,407	3,407	3,407	3,407	3,407	3,407	3,407	3,407	3,407	3,407	3,407	3,407	3,407	3,407	3,407	3,407	3,407
9 Marketing and administrative costs (% of row x)	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
10 Incremental program costs (millions)	6.8	13.1	22.0	33.3	43.5	43.5	43.5	43.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11 Incremental GWh saved from current year installations	1.1	2.2	4.0	6.6	9.4	9.4	9.4	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12 Incremental MW saved from current year installations	0.2	0.3	0.6	0.9	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13 Incremental billion Btu saved from current year installations	47	97	177	289	409	409	409	409	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Incremental GWh saved from current & prior year installations	1.1	3.3	7.3	13.9	23.3	32.6	42.0	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
15 Incremental MW saved from current & prior year installations	0.2	0.5	1.0	1.9	3.1	4.3	5.5	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
16 Incremental billion Btu saved from current & prior year installations	47	144	320	609	1,018	1,427	1,835	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244	2,244
17 Average measure life (years)	23																						
18 Total Avoided Cost (millions 2007$)	0.4	1.3	2.9	5.5	9.1	12.8	16.4	20.1	20.1	20.1	20.2	20.1	20.1	20.1	20.1	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
19 Electricity	0.1	0.2	0.5	0.9	1.5	2.1	2.7	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.4	3.4	3.4
20 Natural Gase	0.3	1.1	2.4	4.6	7.6	10.7	13.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
21 Discounted Benefits (millions 2007$)	0.4	1.2	2.7	5.0	8.0	11.0	13.7	16.3	15.9	15.6	15.2	14.8	14.4	14.0	13.7	13.3	13.0	12.7	12.4	12.1	11.8	11.5	11.2
22 Electricity	0.1	0.2	0.5	0.8	1.3	1.8	2.2	2.7	2.6	2.6	2.5	2.4	2.4	2.3	2.2	2.2	2.2	2.1	2.1	2.0	2.0	1.9	1.9
23 Natural Gase	0.3	1.0	2.2	4.1	6.7	9.2	11.5	13.7	13.3	13.0	12.7	12.4	12.0	11.7	11.4	11.1	10.9	10.6	10.3	10.0	9.8	9.5	9.3
24 Discounted Costs (millions 2007$)	6.6	12.4	20.4	30.0	38.3	37.3	36.4	35.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 Present-Valued Benefits	259.9																						
26 Electricity	42.9																						
27 Natural Gas	216.9																						
28 Present-Valued Costs	216.7																						
29 Net Present Value (millions 2007$)	43.1																						
30 Benefit/Cost Ratio	1.2																						

Notes (tied to row numbers in left column):

1 The prime market is homeowners planning to remodel, and this is a difficult market to estimate.
2
3 Doubling in 4-5 years, with growth slower in earlier years and accelerating. Steady after 5 years.B2
4 Derived from Energy $mart Evaluation Report, 3/07. Can grow 4-5%/year as new measures added to program.
5 Derived from Energy $mart Evaluation Report, 3/07. Growing peak savings more difficult than energy savings.
6 Derived from Energy $mart Evaluation Report, 3/07. Can grow 4-5%/year as new measures added to program.
7 Estimated by program staff. Can gradually decline as contractors can better market on their own.
8 Current program has average participant costs of $6813.19. We take half of this amount since evaluations of the program show that participants attribute about half of their contributions towards energy savings and half towards non-energy benefits such as tilt-out easy to clean windows.
9 Based on recent experience with this program.
10 Row 3 * Row 7 * (1 + Row 9)
11 Row 3 * Row 4 / 1,000,000 kWh/Gwh
12 Row 3 * Row 5 / 1000 kW/MW
13 Row 3 * Row 6 / 10,000 therms/billion Btu
14 Row 11 + Row 14 from previous year
15 Row 12 + Row 15 from previous year
16 Row 13 + Row 16 from previous year
17 NYSERDA evaluations estimate 16 years for electric savings and 30 years for gas savings. We take midpoint.