



DCSEU FY2013 Evaluation Results Summary

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Outline

- FY13 Performance Benchmark Verified Results
 - FY12 Comparison
- FY13 Portfolio Verified Results
- Key Findings
 - Strengths
 - Improvement opportunities
- Recommendations
- Evaluation Strategies for FY14
- Questions

FY2013 Performance Benchmark Verified Results

Item	Benchmark	Performance Target	Minimum Target	FY13 Reported	FY13 Verified	Performance Target Achieved	Minimum Target Achieved
1a	Reduce per-capita energy consumption - electricity (MWh)	103,690	51,845	50,361	52,303	Not achieved	Achieved
1b	Reduce per-capita energy consumption - natural gas (mcf)	273,428	136,714	52,717	50,608	Not achieved	Not achieved
2	Increase renewable energy generating capacity: Cost per MMBtu reduction from FY12	20%	10%	80%	83%	Achieved	Achieved
3	Reduce growth in peak demand (kW)	20,000	2,000	7,468	8,016	Not achieved	Achieved
4	Improve energy efficiency in low-income housing: 30 percent spend (\$)	\$4,620,000	\$3,080,000	\$5,689,466	\$3,617,225	Not achieved	Achieved
5	Reduce growth in energy demand of largest users	not defined	not defined	n/a	n/a	n/a	n/a
6	Increase number of green-collar jobs: green-job hours directly worked by District residents (FTE)	77	62	45	32	Not achieved	Not achieved

FY2012 Performance Benchmark Verified Results

Item	Benchmark	Performance Target	Minimum Target	FY13 Reported	FY13 Verified	Performance Target Achieved	Minimum Target Achieved
1a	Reduce per-capita energy consumption - electricity (MWh)	91,491	45,746	23,260	21,448	Not achieved	Not achieved
1b	Reduce per-capita energy consumption - natural gas (mcf)	241,260	120,000	(10,471) All inclusive of WHF	(11,284) All inclusive of WHF	Not achieved	Not achieved
2	Increase renewable energy generating capacity: cost-effective replacement program	SCT ≥ 1.0	SCT ≥ 1.0	0.82	0.81	Not achieved	Not achieved
3	Reduce growth in peak demand (kW)	20,000	2,000	3,593	3,216	Not achieved	Achieved
4	Improve energy efficiency in low-income housing: 30 percent spend (\$)	\$3,960,000	\$2,640,000	\$4,680,751	\$4,465,639	Achieved	Achieved
5	Reduce growth in energy demand of largest users	A minimum performance target was not established for this benchmark				n/a	n/a
6	Increase number of green-collar jobs: green-job hours directly worked by District residents (FTE)	66	53	48	41	Not achieved	Not achieved



Key Findings and Recommendations: Performance Benchmarks

Reduce per-capita energy consumption

- Additional analysis to understand the performance benchmarks and other contractual obligation interactions (quantify and qualify)
- Measure the progress towards the mcf targets without inclusion of the interactive effects for the installation of more energy efficient lighting
- District potential study calibrated with a District baseline study



Key Findings and Recommendations: Performance Benchmarks

Increase renewable energy generating capacity

- Cost assessment study

Reduce growth in peak demand

- Continue to calculate peak demand reduction
- Engage PJM in direct discussions to better understand the PJM RPM capacity market participation requirements
- Business case for participation



Key Findings and Recommendations: Performance Benchmarks

Improve energy efficiency in low-income housing

- Assess this benchmark in conjunction with the energy savings benchmark given acquisition cost differences

Reduce growth in energy demand of largest users

- Concur with Paige report: report on two tracking indicators
 - i. Tracking indicator 1: nature and scope of engagement
 - ii. Tracking indicator 2: yield of energy savings, or acquisition cost



Key Findings and Recommendations: Performance Benchmarks

Increase number of green-collar jobs

- Market-based programmatic approach = less of the green job creation within control of DC SEU *but also may* = lower acquisition costs
- Paige report recommendations to restructure this benchmark
 - i. expenditures/jobs value based on the experience of the DC SEU and national studies
 - ii. methodology to take full account of the split of jobs between District and non-District residents
- Inclusion of indirect and induced jobs

FY2013 Portfolio Verified Results

Track	Description	kWh			kW			MMBtu - Gas Savings		
		Ex-ante Gross	Ex-post Gross	RR	Ex-ante Gross	Ex-post Gross	RR	Ex-ante Gross	Ex-post Gross	RR
7110SHOT	Solar Hot Water	-	-	n/a	-	-	n/a	4,620.0	4,620.0	1.00
7120PV	Solar Photovoltaic	192,877	196,735	1.02	31.6	32.3	1.02	-	-	n/a
7420FHLB	Forgivable Loan for Home Efficiency Improvements	30,531	30,579	1.00	3.2	3.2	1.00	109.7	119.2	1.09
7420HPES	Home Performance with ENERGY STAR	171,098	158,549	0.93	16.9	15.3	0.91	606.2	616.9	1.02
7510BLTZ	T12 Lighting Replacement	3,644,922	4,212,011	1.16	826.9	1,029.7	1.25	-2,379.4	-2,039.4	0.86
7510CIRX	Business Energy Rebates	2,194,303	2,119,264	0.97	372.9	397.3	1.07	-435.9	-433.7	0.99
7510MTV	T12 Market Transformation Value	1,079,285	1,460,503	1.35	237.9	353.6	1.49	-717.9	-949.7	1.32
7520CUST	Custom Services	19,751,948	20,793,168	1.05	2,858.8	3,031.2	1.06	63,209.1	62,149.4	0.98
7520MARO	Custom Market Opportunity	636,671	566,420	0.89	55.1	56.7	1.03	-	-	n/a
7520NEWC	Custom New Construction	88,749	88,749	1.00	8.8	8.8	1.00	-	-	n/a
7610BLTZ	LI MF T12 Lighting Replacement for Low-income	471,730	388,781	0.82	151.4	143.5	0.95	-322.5	-247.2	0.77
7610ICDI	LI MF Implementation Contractor Direct Install	1,187,537	1,231,956	1.04	124.0	122.9	0.99	417.6	298.8	0.72
7620LICP	LI MF Comprehensive Efficiency Improvements	1,959,041	1,921,321	0.98	184.3	181.8	0.99	5,864.7	5,880.0	1.00
7710APPL	Retail Efficient Appliances	99,569	99,569	1.00	14.3	13.8	0.96	162.0	251.2	1.55
7710FBNK	Efficient Products at Food Banks	2,416,513	2,418,361	1.00	269.6	269.6	1.00	-3,989.5	-3,842.9	0.96
7710LITE	Retail Efficient Lighting	12,699,881	12,713,227	1.00	1,895.3	1,897.8	1.00	-17,317.3	-16,806.4	0.97
FY13 Portfolio RRs		46,624,655	48,399,192	1.04	7,051	7,558	1.07	49,827	49,616	1.00
FY12 Portfolio RRs		21,514,769	19,875,083	0.92	3,386	3,227	0.95	-10,471	-11,284	0.99



Key Findings—Strengths

- I. The movement toward a market-based portfolio gaining momentum
 - Participants and contractors in the custom and commercial lighting tracks are very satisfied
- II. Cost effective and DC SEU cost effective results are accurate
- III. Acquisition costs are declining



Key Findings—Opportunity for Improvement

- I. DC SEU Technical Reference Manual (TRM) expansion: C&I load shapes
- II. Complete and accurate project files, better file organization = more efficient evaluation efforts: data and information requested was made available as requested throughout evaluation effort, but resulted in more costly evaluation
- III. Recruitment of onsite verification participants for the evaluation effort was challenging



Recommendations

- I. Complete a baseline study to identify and validate and/or update the potential study results
- II. Revise the TRM and tracking system to accommodate additional load-shapes more reflective of the projects completed
- III. Establish a “Final Project Documentation” folder within each project file that contains consistently named files critical for the evaluation effort



Evaluation Strategies for FY14

- I. Complete DC SEU cost study
- II. Establish dynamic sampling protocols, coordinate third-party onsite evaluation with the DC SEU QA for C&I complex projects
- III. FY14 summer baseline opportunity assessment
- IV. Conduct evaluations of Food Bank lighting give-away events
 - Intercept surveys
 - Postcard option
 - Follow-up phone surveys

Questions



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