

STATEWIDE EVALUATION TEAM PRELIMINARY ANNUAL REPORT TO THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Program Year 5
June 1, 2013 through May 31, 2014

Pennsylvania Act 129 of 2008
Energy Efficiency and Conservation Plan

July 31, 2014

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Statewide Evaluation Team



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ACRONYMS

C&I	Commercial and Industrial
CFL	Compact Fluorescent Light bulb
Phase II	Cumulative Program/Portfolio Phase II Inception to Date Reported Gross Savings
Phase II-P	Preliminary Phase II Savings = Cumulative Program/Portfolio Phase II Inception to Date verified gross savings + PYTD reported gross savings (Phase II-VG + PYTD-RG)
Phase II-P+CO	Preliminary Phase II Savings plus Carry Over = Cumulative Program/Portfolio Phase II Inception to Date verified gross savings + PYTD reported gross savings (Phase II-VG + PYTD-RG) + Carry Over Savings from Phase I (Phase II-VG + PYTD-RG + CO)
Phase II-VG	Cumulative Program/Portfolio Phase II Inception to Date Verified Gross Savings
PYTD-RG	Program Year To Date reported gross savings
CSP	Conservation Service Provider or Curtailment Service Provider
EDC	Electric Distribution Company
EE&C	Energy Efficiency and Conservation
EM&V	Evaluation, Measurement, and Verification
GNI	Government, Non-Profit, Institutional
IQ	Incremental Quarter
MW	Megawatt
MWh	Megawatt-hour
NTG	Net-to-Gross
PA PUC	Pennsylvania Public Utility Commission
PY5	Program Year 2013, from June 1, 2013 to May 31, 2014
PY6	Program Year 2014, from June 1, 2014 to May 31, 2015
PYX QX	Program Year X, Quarter X
PYTD	Program Year to Date
SWE	Statewide Evaluator
TRC	Total Resource Cost
TRM	Technical Reference Manual

INTRODUCTION

The purpose of this report is to provide a preliminary summary of the participation, energy savings, demand savings and finances reported by the Pennsylvania EDCs for Program Year 5 (PY5) of Act 129. This report uses information gathered from the EDCs' Program Year Five Quarter Four (PY5Q4) reports. PY5 Energy and demand savings for from these reports represent unverified savings. Carry-over Savings from Phase II represent verified savings.¹ PY5 Verified savings will be presented in the *Program Year Five Annual Report*.

¹ For the purpose of this report, only verified carry-over savings are reported. Duquesne Light and Power was unable to verify all carry-over savings from Phase I by the publication of their PY5Q4 report. Those unverified savings will be verified along with PY5 savings and a final verified carry-over savings value for Duquesne will be presented in their Program Year 5 Annual Report and the SWE Program Year 5 Annual Report.

1 SUMMARY OF ACHIEVEMENTS IN COMPARISON TO COMPLIANCE TARGETS

This section of the SWE Preliminary Annual Report highlights the progress of the seven EDCs towards meeting their May 31, 2016 compliance targets. Table 1-1 and Figure 1-1 include Phase II Savings obtained during PY5 as well as those carryover savings (CO) obtained during Phase I. EDC MWh savings carried over from Phase I range from 22,580 MWh (Pennsylvania Power) to 495,363 MWh (PPL Electric Utilities). All EDC's Phase II savings, Phase I Carryover savings and the percentage of the May 31, 2016 compliance target represented by these savings are shown below.

Although there is no statewide target, Table 1-1 and Figure 1-1 show the summation of all EDC MWh savings to date (including carryover savings from Phase I) in comparison to the sum of all EDC compliance targets. As of PY5Q4 Duquesne has shown the most progress (90%) towards reaching its compliance target while PECO has shown the least progress (42%). Overall, the EDCs have reached a collective 60% of the sum of their individual May 31, 2016 compliance targets for MWh savings, based on preliminary data. If carryover savings from Phase I are excluded, the EDCs have reached a collective 29% of the sum of their individual May 31, 2016 compliance targets for MWh savings for Phase II of Act 129. Final results for PY5 will be reported by the EDCs to the PA PUC on November 15, 2014.

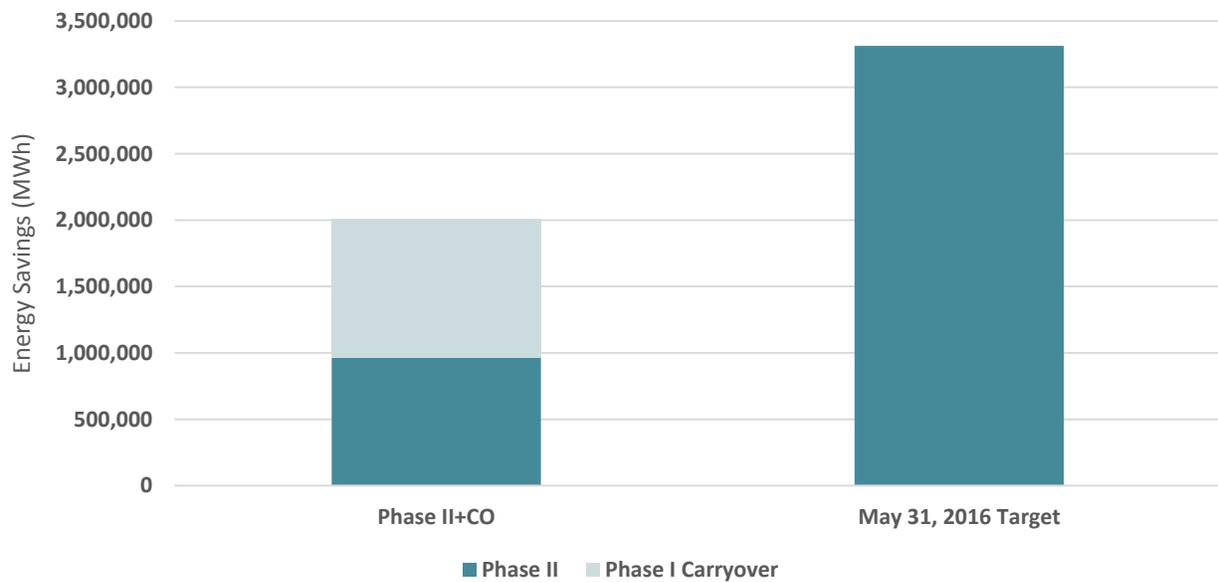
A key finding of this SWE report relates to the PY5 acquisition cost per first year kWh saved. Overall, the Pennsylvania EDCs saved 964,067 MWh during PY5 and spent a total of \$172,528,000. This yields an acquisition cost per first year kWh saved of \$.179 per kWh, 24 percent less than the forecast acquisition cost for PY5 of \$.237 per first year kWh saved.

It is important to note that in compliance with new Energy Security and Information Act (EISA) Standards, PY5 will be the last year that the 60 Watt incandescent bulb will be considered the baseline for 13 Watt CFLs. In the subsequent years in Phase II, the baseline will be updated to a 43 Watt halogen bulb and savings will be calculated accordingly, resulting in a reduction of 36% in energy savings. The 13 Watt CFL is one of the most popular measures across all EDCs and a huge savings contributor. Because the cost of the measure will likely remain unchanged in the short term while the savings dramatically decrease, the SWE expects a change in the acquisition cost as well.

Table 1-1: Phase II-P Savings and Phase I CO Savings Compared to May 31, 2016 Compliance Target

EDC	Phase II Energy Savings (MWh)	Phase I CO Savings (MWh)	Phase II + CO (MWh)	% of Goal (Phase II + CO / Target)	May 31, 2016 Compliance Target (MWh)
PECO	233,197	242,793	475,990	42%	1,125,851
PPL	210,033	495,636	705,669	86%	821,072
Duquesne	115,179	133,717	248,896	90%	276,722
Met Ed	129,092	47,187	176,279	52%	337,753
Penelec	116,479	26,805	143,284	45%	318,813
Penn Power	35,301	22,580	57,881	61%	95,502
West Penn Power	124,786	59,929	184,715	55%	337,533
TOTAL	964,067	1,028,647	1,992,714	60%	3,313,246

Figure 1-1: Phase II Energy Impacts Statewide



2 SUMMARY OF PARTICIPATION, ENERGY AND DEMAND SAVINGS BY EDC AND BY PROGRAM

The following tables provide a summary of the participation and MWh savings for each of the programs offered by the EDCs. Table 2-1 shows a summary of each EDC's portfolio level participation, energy savings and demand savings in Phase II. Table 2-2, Table 2-3, Table 2-4, Table 2-5, Table 2-6, Table 2-7 and Table 2-8 show each EDC's participation, energy and demand savings by program. Because the EDCs run similar, but not identical programs, a statewide summary by program is not available. Some highlights from the tables below are as follows:

- Participation, Energy Savings and Demand Savings from Residential and Commercial lighting programs remains high across all EDCs in Phase II and specifically in PY5.
- Overall, the EDCs' programs performed very well in PY5Q4. For many programs, over half of the Program Year to Date (PYTD) MWh savings came from this last quarter.
- The Phase II Implementation Order required measures to be installed after June 1, 2013 to count towards Phase II savings. Because of the lag in rebate submittal and EDC processes this created a very light PY5Q1. Additionally, EDCs were allowed to count any measure installed up to May 31, 2013 toward Phase I goals. Thus the last quarter in Phase I (PY4Q4) showed massive energy savings and absorbed many projects that would have been counted in PY5Q1 had it not been a Phase change.

Table 2-1: Summary of All EDC's Portfolio Level Participation², Energy Savings and Demand Reduction for Phase II (Excluding Carryover)

EDC	Total Portfolio Participants	Total Portfolio Energy Savings (MWh)	Total Portfolio Demand Savings (MW)
PECO	164,276	233,197	101.7
PPL	273,547	210,033	26.4
Duquesne	34,962	115,179	14.64
Met Ed	326,801	129,092	9.4
Penelec	298,746	116,479	9.4
Penn Power	125,947	35,301	2.6
West Penn Power	287,030	124,786	9.0
TOTAL STATEWIDE	1,511,309	964,067	173.2

² The definition of "participant" varies by program. Additional details on what qualifies as a participant can be found in the EDC PY5Q4 reports.

Table 2-2: PECO Reported Participation and Gross Energy and Demand Savings by Program

Program	Phase II Participants	Phase II Energy Savings (MWh)	Phase II Demand Savings (MW)
Residential	79,431	100,931	8.8
Smart Appliance Recycling Program	7,109	6,337	0.9
Smart Home Rebates Program [1]	12,109	84,713	7.3
Smart House Call	1,182	954	0.1
Smart Builder Rebates	2	5	0.0
Smart Energy Saver	12,584	4,300	0.3
Smart Usage Profile	40,000	2,247	0.0
Smart Multi-Family Solutions Res [3]	6,445	2,374	0.2
Low-Income Energy Efficiency Program Total [2]	8,967	14,127	0.9
Low-Income Energy Efficiency Program	8,967	14,127	0.9
Non-Residential	1,155	118,139	18.0
Commercial and Industrial Total	1,021	45,294	8.0
Smart Equipment Incentives C&I - Retrofit	329	28,225	5.0
Smart Equipment Incentives C&I - Appliance Recycling	43	43	0.0
Smart Construction Incentives C&I	22	3,538	0.6
Smart Business Solutions C&I	408	10,688	2.2
Smart On-Site C&I	0	0	0.0
Smart Multi-Family Solutions C&I [3]	219	2,801	0.2
Government / Nonprofit Total	134	72,845	10.0
Smart Equipment Incentives GNI - Retrofit	101	10,173	1.9
Smart Equipment Incentives GNI - Appliance Recycling	0	0	0.0
Smart Construction Incentives GNI	7	2,127	0.3
Smart Business Solutions GNI	9	439	0.1
Smart On-Site GNI	2	59,945	7.8
Smart Multi-Family Solutions GNI [3]	15	160	0.0
Demand Reduction	74,723	0	74.0
Residential A/C Saver [4]	72,730	0	71.1
Commercial A/C Saver [4]	1,993	0	2.9
Total Portfolio	164,276	233,197	101.7

1 Participant values exclude sales of CFLs, ENERGY STAR lighting fixtures and LED lamps, for which upstream rebates are provided

2 Act 129 includes a provision requiring EDCs to offer a number of energy efficiency measures to low-income households that are "proportionate to those households' share of the total energy usage in the service territory." 66 Pa.C.S. §2806.1(b)(i)(G). The legislation contains no provisions regarding targets for participation, or energy or demand savings. Participation includes only those receiving the Weatherization Audit.

3 The participation values shown here reflect the number of project IDs reported in the tracking data, rather than the number of billing account IDs. The values reported here better reflect the number of participating households, rather than the number of multifamily buildings in which the participants live.

4 Reductions in the participant rate for both the Residential and Commercial Smart A/C Saver programs can be attributed to normal participant attrition due to moves, business closures, etc. in the absence of concerted recruitment of new participants by PECO.

Table 2-3: PPL Reported Participation and Gross Energy and Demand Savings by Program

Program	Phase II Participants	Phase II Energy Savings (MWh)	Phase II Demand Savings (MW)
Appliance Recycling	115,10	9,776	1.8
C&I Custom Incentive	106	4,909	0.5
Continuous Energy Improvement	-	-	-
Low-Income Energy-Efficiency Behavior and Ed	-	-	-
E-Power Wise	2,715	1,863	0.1
Low Income WRAP	2,791	3,065	0.3
Master Metered Multi-Family	37	1,792	0.1
Prescriptive Equipment Commercial	2,348	86,548	12.5
Residential Home Comfort	2,554	2,367	0.9
Residential Retail [1]	250,750	92,804	9.7
School Benchmarking [2]	22	-	-
Student & Parent Education	714	6,910	0.4
Residential Energy-Efficiency Behavior and Ed	-	-	-
TOTAL PORTFOLIO	273,547	210,033	26.4

1. The Residential Retail program contains an upstream lighting component, in which exact participation is not known. The EM&V CSP estimated the number of participants in this component of the program by dividing the total number of bulbs discounted or given away by a CFL-per-participant value derived from the most recent residential customer telephone survey data (7.80 bulbs in Phase I PY4). The total participant count for this program is comprised of 7,781 equipment-rebate participants, 423 midstream equipment-incentive participants, and 242,546 estimated lighting participants purchasing 1,891,862 discounted bulbs. Cross-sector sales are now included in reported gross savings.

2. The School Benchmarking program does not claim energy or demand savings.

Table 2-4: Duquesne Reported Participation and Gross Energy and Demand Savings by Program

Program	Phase II Participants	Phase II Energy Savings (MWh)	Phase II Demand Savings (MW)
Residential: EE Program (REEP): Rebate Program	25,619	9,140	0.625
Residential: EE Program (Upstream Lighting) [1]	N/A	43,016	2.260
Residential: School Energy Pledge	1,284	499	0.028
Residential: Appliance Recycling	2,172	1,849	0.224
Residential: Low Income EE	5,622	2,220	0.156
Residential: Low Income EE (Upstream Lighting) [1]	N/A	11,024	0.579
Commercial Sector Umbrella EE	20	714	0.126
Commercial Sector Umbrella EE (Upstream Lighting) [1]	N/A	26,400	7.373
Healthcare EE	7	243	0.059
Industrial Sector Umbrella EE	2	1,484	0.298
Chemical Products EE	9	398	0.063
Mixed Industrial EE	11	1,091	0.165
Office Building – Large – EE	41	6,812	1.152

Program	Phase II Participants	Phase II Energy Savings (MWh)	Phase II Demand Savings (MW)
Office Building – Small EE	18	430	0.088
Primary Metals EE	6	6,788	0.806
Public Agency / Non-Profit	35	594	0.151
Retail Stores – Small EE	108	1,691	0.354
Retail Stores – Large EE	8	787	0.131
TOTAL PORTFOLIO	34,962	115,179	14.641
<p>1. The allocation of Upstream Lighting savings into Residential, Low-income, and Commercial Upstream Lighting is based on evaluation research Navigant conducted early in Program Year 5, which determined that 12.6% of bulbs were sold to commercial customers, 17.8% to low income customers and 69.6% to non-low-income residential customers.</p>			

Table 2-5: Met-Ed Reported Participation and Gross Energy and Demand Savings by Program

Program	Phase II Participants	Phase II Energy Savings (MWh)	Phase II Energy Savings (MWh)
Appliance Turn-In	5,280	4,220	0.7
Efficient Products	248,042	34,220	2.2
Home Performance	61,992	49,686	1.5
Low Income	9,836	3,723	0.2
Small C/I Equipment	286	14,991	2.3
Small C/I Buildings	1,297	1,210	0.3
Large C/I Equipment	51	20,713	2.2
Large C/I Buildings	0	0	0.0
Gov./Institutional	17	331	0.1
TOTAL PORTFOLIO	326,801	129,092	9.4

Table 2-6: Penelec Reported Participation and Gross Energy and Demand Savings by Program

Program	Phase II Participants	Phase II Energy Savings (MWh)	Phase II Energy Savings (MWh)
Appliance Turn-In	6,154	4,793	0.7
Efficient Products	219,045	31,088	1.9
Home Performance	60,686	40,584	1.4
Low Income	12,355	5,667	0.3
Small C/I Equipment	375	16,114	2.6
Small C/I Buildings	0	2,070	0.4
Large C/I Equipment	74	14,498	1.8
Large C/I Buildings	24	74	0.0
Gov./Institutional	33	1,591	0.2
TOTAL PORTFOLIO	298,746	116,479	9.4

Table 2-7: Penn Power Reported Participation and Gross Energy and Demand Savings by Program

Program	Phase II Participants	Phase II Energy Savings (MWh)	Phase II Energy Savings (MWh)
Appliance Turn-In	1,806	1,404	0.2
Efficient Products	102,000	12,995	0.7
Home Performance	17,809	11,543	0.5
Low Income	3,624	1,205	0.1
Small C/I Equipment	75	3,769	0.6
Small C/I Buildings	623	744	0.1
Large C/I Equipment	9	3,619	0.4
Large C/I Buildings	0	0	0.0
Gov./Institutional	1	23	0.0
TOTAL PORTFOLIO	125,947	35,301	2.6

Table 2-8: West Penn Power Reported Participation and Gross Energy and Demand Savings by Program

Program	Phase II Participants	Phase II Energy Savings (MWh)	Phase II Energy Savings (MWh)
Appliance Turn-In	6,805	5,346	0.8
Efficient Products	245,200	36,247	2.7
Home Performance	26,313	44,739	0.7
Low Income	5,615	1,792	0.1
Small C/I Equipment	388	15,121	2.0
Small C/I Buildings	2,623	2,513	0.6
Large C/I Equipment	48	17,975	2.1
Large C/I Buildings	0	0	0.0
Gov./Institutional	38	1,055	0.1
TOTAL PORTFOLIO	287,030	124,786	9.0

3 SUMMARY OF PORTFOLIO FINANCES

Each quarter, EDC's are asked to complete the table shown below with information pertaining to their spending on a portfolio and by-program basis. Below is a summation of all seven EDC's spending on incentives, administration and evaluation for Phase II. Please note that PECO did not report any "SWE Audit Cost" data in the PY5Q4 report. Additionally, EDCs will not report information for the following specific data fields, Total EDC Costs, Participant Costs or Total TRC Costs until the *Program Year Five Annual Report*. Please also note that data from the EDC Incentives to Participants and EDC Incentives to Trade Allies data fields were not separated in the PPL PY5Q4 report. Thus for the purposes of this table, all PPL EDC Incentives to Participants and Trade Allies are combined into the EDC Incentives to Participants cell.

Table 3-1: Summation of Statewide Portfolio Finances for Program Year 5

	Phase II (\$000)
EDC Incentives to Participants	\$59,546
EDC Incentives to Trade Allies	\$65
Subtotal EDC Incentive Costs	\$59,611
Design & Development	\$2,017
Administration, Management and Technical Assistance[1]	\$89,107
Marketing	\$12,085
Subtotal EDC Implementation Costs	\$103,209
EDC Evaluation Costs	\$5,213
SWE Audit Costs	\$4,500
Total EDC Costs[2]	\$57,953
Participant Costs[3]	N/A
Total TRC Costs[4]	N/A
NOTES	
<i>Per PUC direction, TRC inputs and calculations are required in the Annual Report only and should comply with the 2013 Total Resource Cost Test Order approved August 30, 2012.</i>	
2. Includes the administrative CSP (rebate processing), tracking system, general administration and clerical costs, EDC program management, CSP program management, general management oversight major accounts and technical assistance	
3. Per the 2013 Total Resource Cost Test Order – Total EDC Costs, here, refer to EDC incurred expenses only. Total EDC Costs = Subtotal EDC Incentive Costs + Subtotal EDC Implementation Costs + EDC Evaluation Costs + SWE Audit Costs.	
4. Per the 2013 Total Resource Cost Test Order –Net participant costs; in PA, the costs of the end-use customer.	
5. Total TRC Costs = Total EDC Costs + Participant Costs	

Table 3-2 provides a comparison of the PY5 actual energy efficiency program expenditures by EDC to the approved budget in each EDC's Phase II EE&C plan. The Program Year 5 overall energy efficiency program budget for all seven EDC's was \$228.3 million while actual spending was \$172.5 million. Thus actual spending in Program Year 5 was 24 percent lower than the approved budget. The PY5 energy efficiency acquisition cost per first year kWh saved is \$.179 per kWh, 24 percent less than the forecast acquisition cost for PY5 of \$.237 per first year kWh saved.

Table 3-2: Comparison of EDC Preliminary Data on PY5 Total Expenditures on Energy Efficiency Programs Versus the Approved Budget in Each EDC's EE&C Plan & Actual Acquisition Cost Per First Year kWh Saved for PY5

EDC	Actual PY5 EE Expenditures (\$)	Approved Budget for PY 5	Actual \$ Spent - Budget \$	Percent Difference from Budget	PY 5 MWh Savings (Without Carry Over savings)	Forecast PY5 Acquisition Cost per First Year kWh Saved	Actual PY5 Acquisition Cost per First Year kWh Saved	Actual Acquisition Cost - Percent Difference from Budget
PECO	\$57,838,000	\$76,881,000	-\$19,043,000	-24.8%	233,197	\$0.330	\$0.248	-24.8%
PPL	\$37,838,000	\$55,705,615	-\$17,867,615	-32.1%	210,033	\$0.265	\$0.180	-32.1%
Duquesne	\$15,308,000	\$19,497,797	-\$4,189,797	-21.5%	115,179	\$0.169	\$0.133	-21.5%
Met Ed	\$18,776,000	\$24,508,273	-\$5,732,273	-23.4%	129,092	\$0.190	\$0.145	-23.4%
Penelec	\$17,938,000	\$22,176,751	-\$4,238,751	-19.1%	116,479	\$0.190	\$0.154	-19.1%
Penn Power	\$5,987,000	\$6,551,718	-\$564,718	-8.6%	35,301	\$0.186	\$0.170	-8.6%
West Penn Power	\$18,843,000	\$22,972,508	-\$4,129,508	-18.0%	124,786	\$0.184	\$0.151	-18.0%
Grand Total	\$172,528,000	\$228,293,662	-\$55,765,662	-24.4%	964,067	\$0.237	\$0.179	-24.4%