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December 10, 2012

VIA OVERNIGHT FEDERAL EXPRESS

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor
Harrisburg, PA 17120

Re: West Penn Power Company (M-2009-2093218) Amended Annual Report to the Pennsylvania Public Utility Commission and Act 129 Statewide Evaluator

Dear Secretary Chiavetta:

Enclosed please find an original, a copy and a disk of West Penn Power Company's Amended Annual Report to the Pennsylvania Public Utility Commission and Act 129 Statewide Evaluator. The following changes were made to the original Annual Report and are highlighted in the report:

- Page 19, Table 1-3, Total Portfolio PYTD Verified Gross Energy Savings (MWh/Year) changed from 298,548 to 301,783.
- Page 22, Table 1-5, PYTD Verified Gross Demand Savings (MW/year) changed for the following:
- Commercial and Industrial Equipment Program – Small from 12.2 to 12.1
- Governmental and Institutional Program from 10.0 to 9.7
- Total Portfolio from 34.4 to 34.5
- Page 23, Table 1-6, PYTD TRC Ratio changed from 2.40 to 2.43 and CPITD TRC Ratio changed from 2.26 to 2.28.
- Page 37, Table 3-4, CFLs Reported Gross Demand Reduction and Verified Gross Demand Reduction changed from 0.83 to 0.95 and 0.82 to 0.93, respectively; Program Total Demand Realization Rate changed from 91.6% to 93.2% and Program Total Verified Gross Demand Reduction changed from 2.06 to 2.11.
- Page 39, Table 3-5, Total Lifetime Energy Benefits changed for IQ from $359 to $409, PYTD from $9,258 to $10,531 and CPITD from $25,991 to $27,264; Total Lifetime Capacity Benefits changed for IQ from $37 to $38, PYTD from $436 to $444 and CPITD from $1,317 to $1,324; and, TRC Ratio changed for PYTD from 2.26 to 2.56 and CPITD from 2.39 to 2.51.
- Page 63, Table 8-5, CPITD Participant Costs changed from $5,247 to $524.

- Page 81, Table 11-5, PYTD TRC Ratio changed from 2.33 to 2.31.

Please date stamp the copy of each and return to me in the enclosed, postage-prepaid envelope. Should you have any questions regarding this matter, please do not hesitate to contact me.

Sincerely,

Carrie M. Dunn

Enclosures

Amended Final Annual Report
to the
Pennsylvania Public Utility Commission

For the Period
June 2011 through May 2012
Program Year 3

For Pennsylvania Act 129 of 2008
Energy Efficiency and Conservation Plan

Prepared by ADM and Tetra Tech

For

West Penn Power Company
Docket No. M-2009-2093218

~~November 15, 2012~~
Amended on December 10, 2012

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Table of Contents

Acronyms

C&I	Commercial and Industrial
CATI	Computer-Aided Telephone Interview
CFL	Compact Fluorescent Lamp
CPITD	Cumulative Program/Portfolio Inception to Date
CPITD-Q	Cumulative Program/Portfolio Inception through Current Quarter
CSP	Conservation Service Provider or Curtailment Service Provider
CVR	Conservation Voltage Reduction
CVRf	Conservation Voltage Reduction factor
DLC	Direct Load Control
DR	Demand Response
EDC	Electric Distribution Company
EE&C	Energy Efficiency and Conservation
EM&V	Evaluation, Measurement, and Verification
GNI	Government, Non-Profit, Institutional
HVAC	Heating, Ventilating, and Air Conditioning
IQ	Incremental Quarter
kW	Kilowatt
kWh	Kilowatt-hour
LED	Light Emitting Diode
LEEP	Low-Income Energy Efficiency Program
LIURP	Low-Income Usage Reduction Program
M&V	Measurement and Verification
MW	Megawatt
MWh	Megawatt-hour
NTG	Net-to-Gross
PA PUC	Pennsylvania Public Utility Commission
PY1	Program Year 2009, from June 1, 2009 to May 31, 2010
PY2	Program Year 2010, from June 1, 2010 to May 31, 2011
PY3	Program Year 2011, from June 1, 2011 to May 31, 2012
PY4	Program Year 2012, from June 1, 2012 to May 31, 2013
PYX QX	Program Year X, Quarter X
PYTD	Program Year to Date
SEER	Seasonal Energy Efficiency Rating
SWE	Statewide Evaluator
TRC	Total Resource Cost
TRM	Technical Reference Manual

Report Definitions

Note: Definitions provided in this section are limited to terms critical to understanding values presented in this report. For other definitions, please refer to the Act 129 glossary.

REPORTING PERIODS

Cumulative Program Inception to Date (CPITD)
Refers to the period of time since the start of the Act 129 programs. CPITD is calculated by totaling all program year results, including the current program year to date results. For example, CPTID results for PY3 Q3 is the sum of PY1, PY2, PY3 Q1, PY3 Q2, and PY3 Q3 results.

Incremental Quarter (IQ)
Refers to the current reporting quarter only. Activities occurring during previous quarters are not included. For example, IQ results for PY3 Q3 will only include results that occurred during PY3 Q3 and not PY2 Q2.

Program Year to Date (PYTD)
Refers to the current reporting program year only. Activities occurring during previous program years are not included. For example, PYTD results for PY3 Q3 will only include results that occurred during PY3 Q1, PY3 Q2, and PY3 Q3. It will not include results from PY1 and PY2.

SAVINGS TYPES

Preliminary
Qualifier used in all reports except the final annual report to signify that evaluations are still in progress and that results have not been finalized. Most often used with "realization rate" or "verified gross savings".

Reported Gross
Refers to results of the program or portfolio determined by the program administrator (e.g., the EDC or the program implementer). Also known as *ex-ante*, or "before the fact" (using the annual evaluation activities as the reference point).

Verified Gross
Refers to results of the program or portfolio determined by the evaluation activities. Also known as *ex-post*, or "after the fact" (using the annual evaluation activities as the reference point).

TRC COMPONENTS[1]

Administration Costs

Includes the administrative CSP (rebate processing), tracking system, and general administration and clerical costs.

EDC Costs

Per the 2011 Total Resource Cost Test Order, the Total EDC Costs refer to EDC incurred expenditures only.

Management Costs

Includes the EDC program management, CSP program management, general management oversight and major accounts.

Participant Costs

Per the 2011 Total Resource Cost Test Order, the net participant costs are the costs for the end use customer.

Total TRC Costs

Total TRC Costs includes EDC Evaluation Costs, EDC Implementation Costs and Participant Costs.

Total TRC Benefits

Based upon verified gross kWh and kW savings. Benefits include: avoided supply costs, including the reduction in costs of electric energy, generation, transmission, and distribution capacity, and natural gas valued at marginal cost for periods when there is a load reduction.

[1] All TRC definitions are subject to the 2011 Total Resource Cost Test Order.

1 Overview of Portfolio

Pennsylvania Act 129 of 2008 signed on October 15, 2008 mandated energy savings and coincident peak demand reduction goals for the largest electric distribution companies (EDCs) in Pennsylvania. Each EDC submitted energy efficiency and conservation (EE&C) plans—which were approved by the Pennsylvania Public Utility Commission (PA PUC)—pursuant to these goals. This report documents the progress and effectiveness of the EE&C accomplishments for West Penn Power Company ("West Penn" or "Company) in the fourth quarter of Program Year Three (PY3), defined as June 1, 2011 through May 31, 2012, as well as the cumulative accomplishments of the programs since inception.

ADM Associates and Tetra Tech have evaluated the programs, which included measurement and verification of the savings. The final verified savings for PY3 and the cumulative verified savings since inception of the programs are included in this final annual report.

This report is organized into two major sections. The first section provides an overview of activities for the entire portfolio. This includes summary information and portfolio level details regarding the progress towards compliance goals, energy and demand impacts, net-to-gross ratios, finances, and cost-effectiveness. The following sections include program specific details, including program updates, impact evaluation findings, and process evaluation findings.

Other Observations and Risks That May Affect Portfolio Success

Given the dynamic nature of the economy and customer participation rates, there is a clear need for implementation flexibility and prompt approval of plan changes to ensure adequate time to attain the May 31, 2013 goals. Prompt approval minimizes the potential of having funds that could be applied to successful programs stranded on unsuccessful programs.

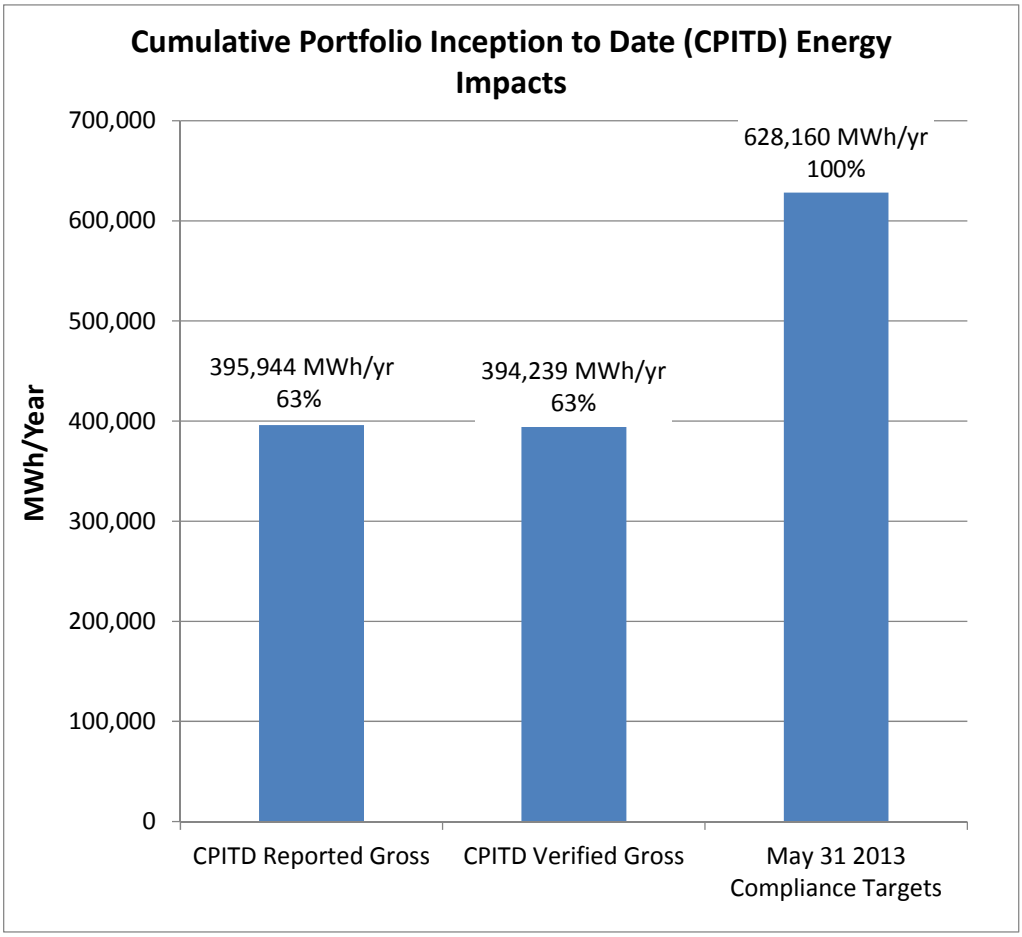
The Company has ongoing concerns about its ability to achieve the May 31, 2013 3 percent energy efficiency and 4½ percent demand reduction targets. With respect to the 3 percent energy efficiency target, the concern primarily relates to budget constraints and a slow ramp-up in savings prior to portfolio plan changes implemented following the FirstEnergy merger. With respect to the 4½ percent demand reduction target, the concern is based on: (i) the magnitude of the MW goal; (ii) customers ability and willingness to curtail sufficient load for approximately 20 days within a four month window specific to the top 100 hours; (iii) the Company's ability to accurately forecast when the top 100 hours will occur; and (iv) budget constraints which limit the companies ability to overcome forecasting and participation risks. Further concerns revolve around the differing amount of funding available for compliance purposes – something noted by the Commission in its May 10, 2012 tentative implementation Order for Phase II of Act 129 in Docket No. M-2012-2289411. WPP has the smallest Phase I compliance budget per MWh among any of the Pennsylvania EDCs. This when coupled with the fact that WPP has the lowest electric rates in the Commonwealth, creates several obstacles not faced by other EDCs and makes goal attainment very challenging.

Notwithstanding these difficulties, the Company is diligently working with its implementation team and implementation and evaluation Conservation Service Providers ("CSPs") to evaluate current programs and identify the most effective and most economic approach for achieving potential Act 129 targets. The empirically-based results from these evaluations form the basis for program design decisions with a goal to cost effectively improve the delivery of energy efficiency and conservation measures to customers.

1.1 Summary of Progress Toward Compliance Targets

The energy savings[2] compliance target for West Penn is 628,160 MWh/yr and must be achieved by May 31, 2013 per Act 129. Based on CPITD verified gross energy savings[3], West Penn has achieved 63 percent of the energy savings compliance target. These figures are shown in **Figure 1-1**. The PUC will determine compliance using CPITD verified gross energy savings.

Figure 1-1: Portfolio CPITD Energy Savings

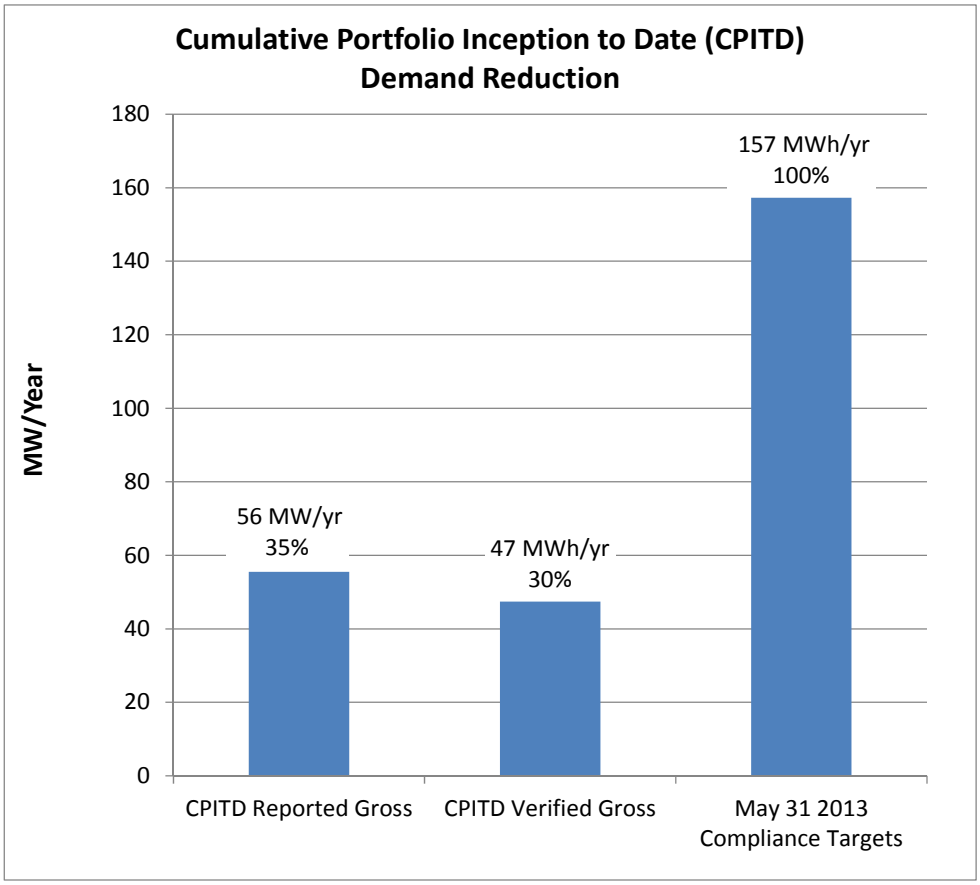


[2] Herein, energy savings refers to annualized energy savings and is measured in kWh/year or MWh/year. Energy savings are reported at the meter.

[3] See the "Report Definitions" section for an explanation of how CPITD verified gross savings are calculated.

The system peak demand reduction[4] compliance target for West Penn is 157.3 MW per Act 129 and must be achieved by September 30, 2012. Based on CPITD verified gross demand reduction[5], West Penn has achieved 30 percent of the demand reduction compliance target. These figures are shown in **Figure 1-2**.

Figure 1-2: Portfolio CPITD Peak Demand Reduction[6]



[4] Herein, demand reduction refers to the EDC's system peak demand reduction in the EDC's top 100 hours of highest demand, as defined by the PA PUC and is measured in kW or MW.

[5] See the "Report Definitions" section for an explanation of how CPITD verified gross savings are calculated.

[6] For cumulative results through Plan year 3, demand reductions are at the customer level. Reported results for PY4 will include the addition of line losses.

Act 129 mandates that the number of measures offered to the low-income sector be proportionate to the low-income sector's share of total energy usage.[7] There are 10 measures available to the low-income sector. The measures offered to the low-income sector therefore comprise 23.8 percent of the total measures offered. This exceeds the fraction of the electric consumption of the utility's low-income households divided by the total electricity consumption in the West Penn territory (8.8 percent). These values are shown in **Table 1-1**.

Note that a very coarse enumeration of measures is used in defining measures. Over 200 measures are offered in the low-income WARM program, yet in this classification a home weatherization audit is one measure. The energy efficiency kits mailed to low-income customers is also categorized as one measure, though it contains several items that target the plug loads and lighting end-uses. Likewise, the measure classification scheme also treats, for example, all commercial lighting upgrades as two separate measures, logically distinguished by the rebate application process than whether a fixture is a 3-lamp T8 or a 4-lamp T5.

Table 1-1: Low-Income Sector Compliance Metrics

	Low-Income Sector	All Sectors	% Low-Income
# of Measures Offered	10	42	23.8%
Electric Consumption (MWh/yr)	1,765,820	20,079,830	8.8%

The CPITD reported gross energy savings for low-income sector programs (excluding low-income participation in non-low-income programs) is 32,193 MWh/yr; this is 8.1 percent of the CPITD total portfolio reported gross energy savings.

Including low-income customer participation in non-low-income programs, the CPITD reported gross energy savings achieved is 48,502 MWh/yr; this is 12.2 percent of the CPITD total portfolio reported gross energy savings.

The CPITD verified gross energy savings achieved in for low-income programs (excluding low-income participation in non-low-income programs) is 30,858 MWh/yr; this is 7.9% percent of the CPITD total portfolio verified gross energy savings.[8]

[7] Act 129 includes a provision requiring electric distribution companies to offer a number of energy conservation 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.

[8] See the "Report Definitions" section for an explanation of how CPITD verified gross savings are calculated.

Including low-income customer participation in non-low-income programs, the CPITD reported verified energy savings achieved is 45,441 MWh/yr; this is 11.6 percent of the CPITD total portfolio reported verified energy savings.[9][10]

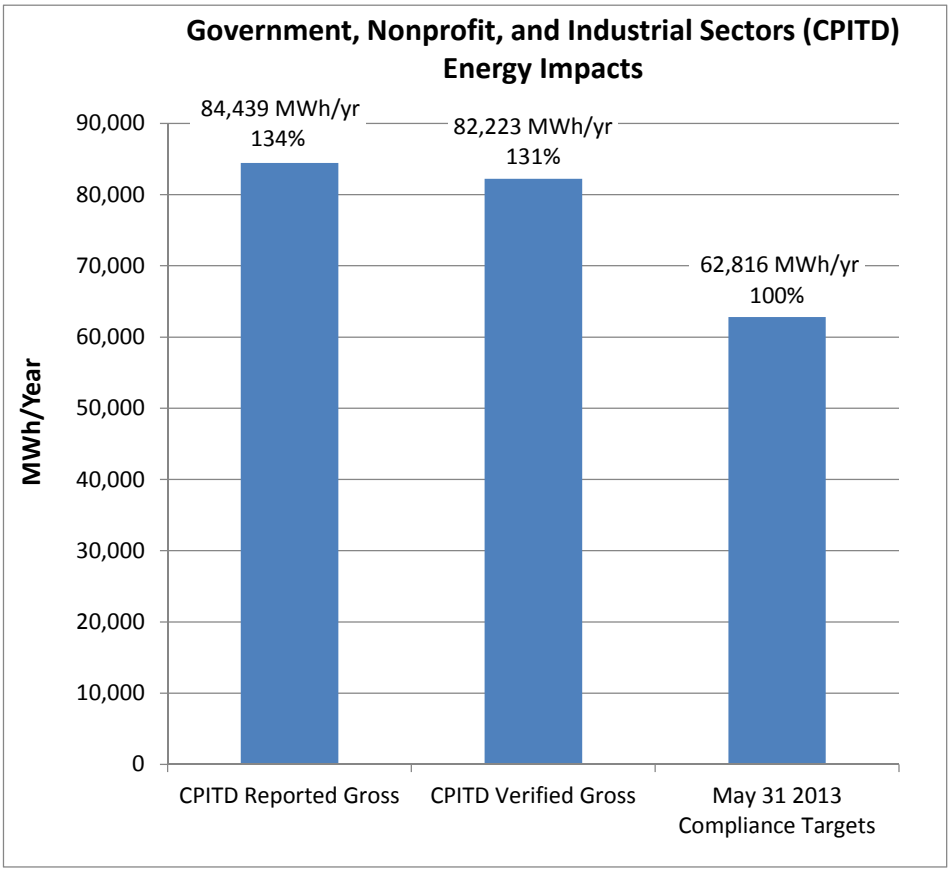
[9] The low-income participation in general residential programs is computed as follows: Three of the four general residential programs offered by the Company have the majority of savings attributable to low-cost or no-cost measures. The Residential Home Performance Program provides no-cost conservation kits and CFL give-aways and mailings, while the Energy Efficient Products program savings include upstream CFLs and appliances as well. For these programs, it is assumed that the low-income participation share is equal to the 75% of the fraction of LI residents in the service territory. That is, a low-income customer is 75% as likely as a non low-income customer to participate in the no-cost or low-cost programs. Though participation in the Appliance Turn-In program is free, it is assumed that a low-income customer is 50% as likely as a non low-income customer to participate in this program, as one must own an excess of appliance to participate. It is assumed that the participation rate for the Residential Energy Efficiency HVAC program is zero, as these programs primarily offer capital cost measures. The 75% and 50% assumptions are loosely based on previous efforts to track low-income participation by matching account numbers to lists of past participants in income-qualified utility programs.

[10] The estimated cost of low-income savings from non-low-income programs is $3,337,670.

Act 129 mandates that a minimum of 10% of the required energy and demand targets be obtained from units of federal, state and local governments, including municipalities, school districts, institutions of higher education and nonprofit entities. Herein, this group is referred to as the government, nonprofit and institutional (GNI) sector.

The energy savings compliance target for the GNI sector for West Penn is 62,816 MWh/yr, which must be obtained by May 31, 2013. Based on CPITD verified gross energy savings[11], West Penn achieved 131 percent of the target. These values are shown in **Figure 1-3**.

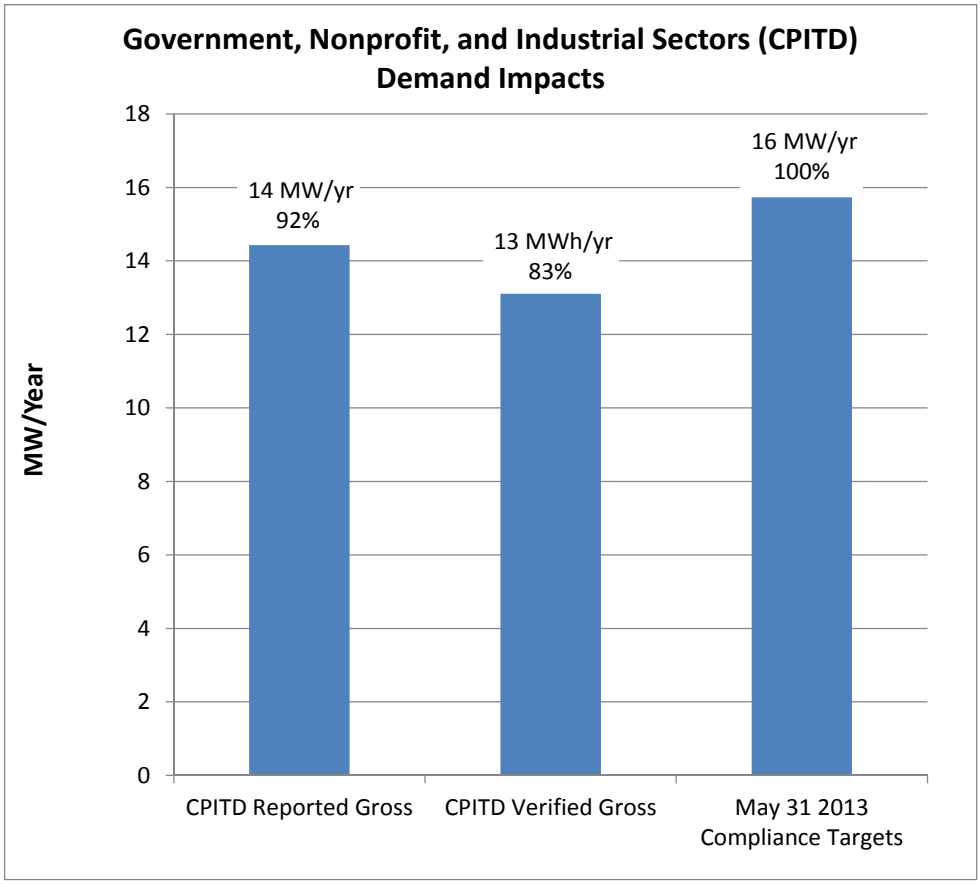
Figure 1-3: GNI CPITD Energy Savings



[11] See the "Report Definitions" section for an explanation of how CPITD verified gross savings are calculated.

The peak demand reduction compliance target for the GNI sector for West Penn is 16 MW. Based on CPITD verified gross demand reduction[12], West Penn achieved 83 percent of the target. These values are shown in Figure 1-4.

Figure 1-4: GNI CPITD Peak Demand Reduction[13]



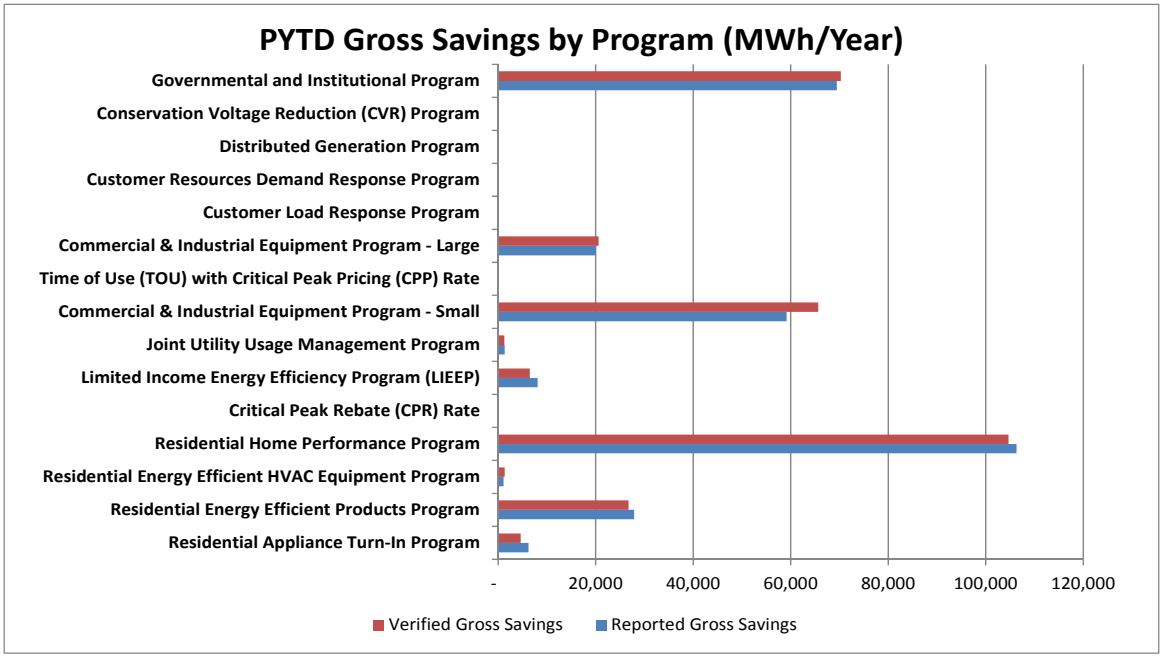
[12] See the "Report Definitions" section for an explanation of how CPITD verified gross savings are calculated.

[13] For cumulative results through Plan year 3, demand reductions are at the customer level. Reported results for PY4 will include the addition of line losses.

1.2 Summary of Energy Impacts

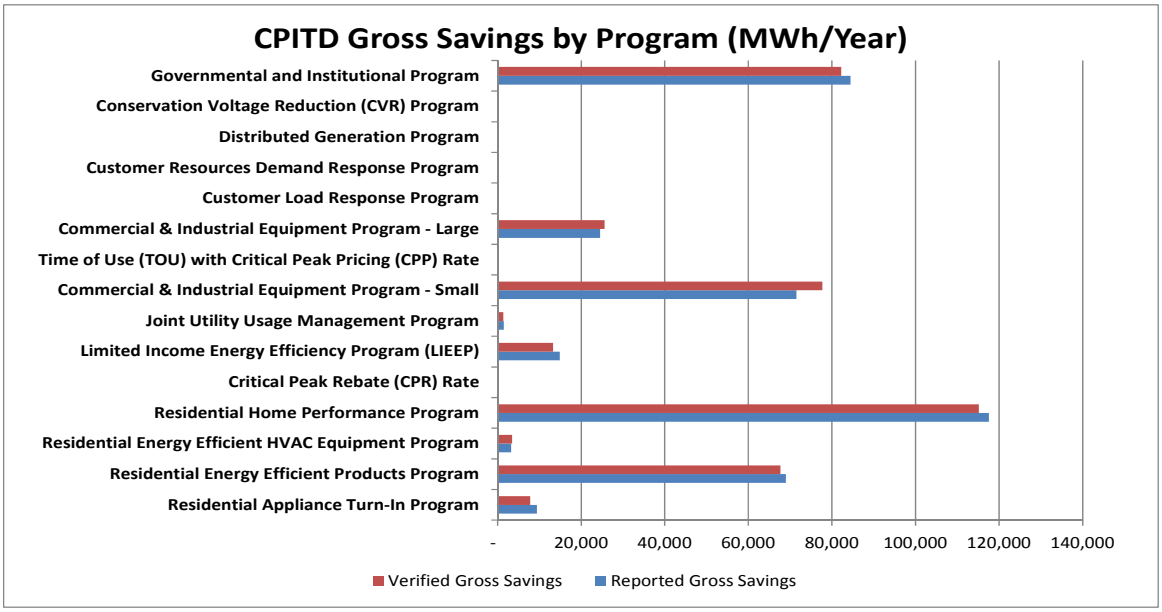
A summary of the reported and verified energy savings by program for the program year is presented in **Figure 1-5**.

Figure 1-5: PYTD Gross Energy Savings by Program



A summary of the cumulative reported and verified energy savings by program is presented in **Figure 1-6**.

Figure 1-6: CPITD Gross Energy Savings by Program



A summary of energy impacts by program through the PY3 Q4 is presented in **Table 1-2** and **Table 1-3**.

Table 1-2: EDC Reported Participation and Gross Energy Savings by Program

Program	Participants			Reported Gross Energy Savings (MWh/Year)		
	IQ	PYTD	CPITD	IQ	PYTD	CPITD
Residential Appliance Turn-In Program	1,640	3,753	6,021	2,924	6,233	9,406
Residential Energy Efficient Products Program	25,147	126,348	325,956	4,750	27,914	69,000
Residential Energy Efficient HVAC Equipment Program	249	1,490	3,473	106	1,133	3,235
Residential Home Performance Program	31,705	335,683	372,486	12,105	106,297	117,532
Critical Peak Rebate (CPR) Rate	0	0	0	0	0	0
Limited Income Energy Efficiency Program (LIEEP)	1,428	5,652	11,276	1,352	8,118	14,865
Joint Utility Usage Management Program	3,105	3,199	3,319	1,286	1,362	1,445
Commercial & Industrial Equipment Program - Small	25,867	26,006	26,154	45,168	59,193	71,478
Time of Use (TOU) with Critical Peak Pricing (CPP) Rate	0	0	0	0	0	0
Commercial & Industrial Equipment Program - Large	7	37	47	1,262	20,065	24,544
Customer Load Response Program	0	0	0	0	0	0
Customer Resources Demand Response Program	0	0	0	0	0	0
Distributed Generation	0	0	0	0	0	0
Conservation Voltage Reduction (CVR) Program	0	0	0	0	0	0
Governmental and Institutional Program	36	229	1,017	56,968	69,463	84,439
TOTAL PORTFOLIO	**89,184**	**502,397**	**749,749**	**125,920**	**299,777**	**395,944**
NOTES:						

Table 1-3: Verified Gross Energy Savings by Program

Program	PYTD Reported Gross Energy Savings (MWh/Year)	PYTD Energy Realization Rate	PYTD Verified Gross Energy Savings (MWh/Year)	PYTD Confidence	PYTD Achieved Precision	CPITD Verified Gross Energy Savings (MWh/Year)
Residential Appliance Turn-In Program	6,233	74.0%	4,612	90%	8%	7,785
Residential Energy Efficient Products Program	27,914	95.9%	26,767	90%	4%	67,703
Residential Energy Efficient HVAC Equipment Program	1,133	121.6%	1,378	90%	0%	3,479
Residential Home Performance Program	106,297	98.5%	104,703	90%	3%	115,151
Critical Peak Rebate (CPR) Rate	0	n/a	0	n/a	n/a	0
Limited Income Energy Efficiency Program (LIEEP)	8,118	80.0%	6,494	90%	6%	13,241
Joint Utility Usage Management Program	1,362	93.0%	1,266	90%	8%	1,342
Commercial & Industrial Equipment Program - Small	59,193	110.9%	65,621	90%	0%	77,682
Time of Use (TOU) with Critical Peak Pricing (CPP) Rate	0	n/a	0	n/a	n/a	0
Commercial & Industrial Equipment Program - Large	20,065	102.8%	20,636	90%	0%	25,632
Customer Load Response Program	0	n/a	0	n/a	n/a	0
Customer Resources Demand Response Program	0	n/a	0	n/a	n/a	0
Distributed Generation Program	0	n/a	0	n/a	n/a	0
Conservation Voltage Reduction (CVR) Program	0	n/a	0	n/a	n/a	0
Governmental and Institutional Program	69,463	101.2%	70,306	90%	0%	82,223
TOTAL PORTFOLIO	**299,777**	**100.7%**	~~**298,548**~~ 301,783	**90%**	**0%**	**394,239**
NOTES:						

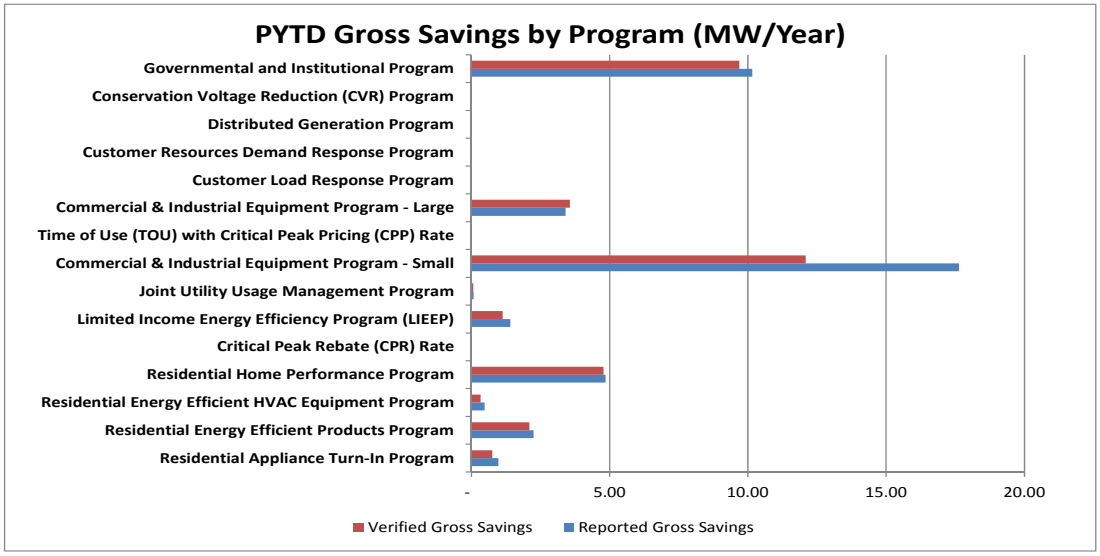
1.3 Summary of Fuel Switching Impacts

WPP has not rebated any overt non-electric to electric fuel switching measures. In some programs, there are rebates available for electric heat pumps or electric water heaters. Customers who choose to switch to electric equipment are eligible for rebates. All program participants are asked if gas is available in their homes or businesses. Approximately 9% of customers (i.e. 39 of 439 customers) who received rebates for electric heat pumps have gas service available in their homes. Assuming a similar proportion for electric water heater recipients, 11 of 126 customers that received rebates for electric water heaters have gas service available at their homes.

1.4 Summary of Demand Impacts

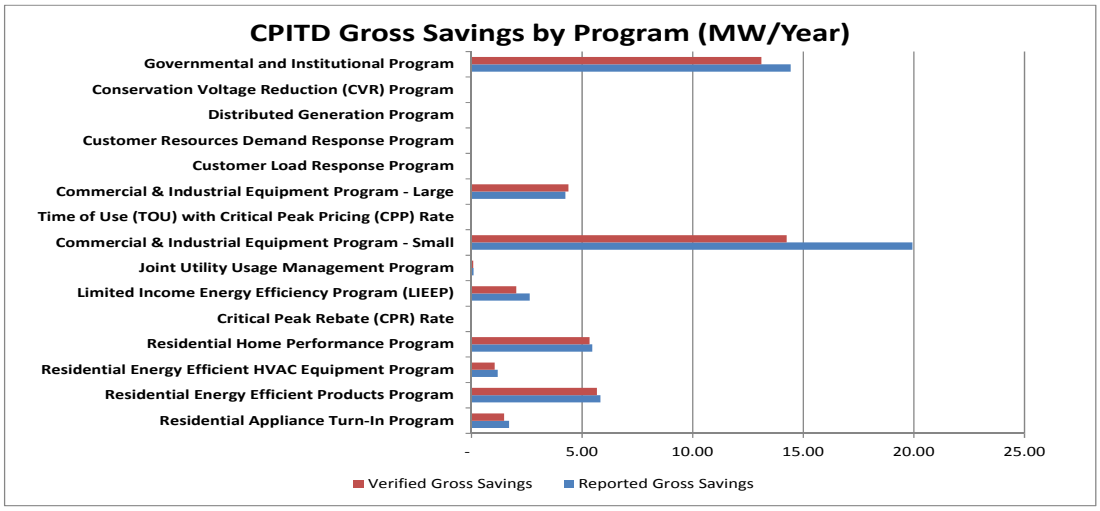
A summary of the reported and verified demand reduction by program for the program year is presented in **Figure 1-7**. The impacts below reflect a line loss factor of 0%.[14]

Figure 1-7: PYTD Reported Demand Reduction by Program



A summary of the cumulative reported and verified demand reduction by program is presented in **Figure 1-8**.

Figure 1-8: CPITD Reported Demand Reduction by Program



[14] For cumulative results through Plan year 3, demand reductions are at the customer level. Reported results for PY4 will include the addition of line losses.

A summary of demand reduction impacts by program through the PY3 Q4 is presented in **Table 1-4** and **Table 1-5**.

Table 1-4**: EDC Reported Participation and Gross Demand Reduction by Program**

Program	Participants			Reported Gross Energy Savings (MW/Year)		
	IQ	PYTD	CPITD	IQ	PYTD	CPITD
Residential Appliance Turn-In Program	1,640	3,753	6,021	0.4	1.0	1.7
Residential Energy Efficient Products Program	25,147	126,348	325,956	0.2	2.2	5.8
Residential Energy Efficient HVAC Equipment Program	249	1,490	3,473	0.1	0.5	1.2
Residential Home Performance Program	31,705	335,683	372,486	0.5	4.8	5.5
Critical Peak Rebate (CPR) Rate						
Limited Income Energy Efficiency Program (LIEEP)	1,428	5,652	11,276	0.2	1.4	2.6
Joint Utility Usage Management Program	3,105	3,199	3,319	0.1	0.1	0.1
Commercial & Industrial Equipment Program - Small	25,867	26,006	26,154	15.4	17.6	19.9
Time of Use (TOU) with Critical Peak Pricing (CPP) Rate	0	0	0	0.0	0.0	0.0
Commercial & Industrial Equipment Program - Large	7	37	47	0.1	3.4	4.2
Customer Load Response Program	0	0	0	0.0	0.0	0.0
Customer Resources Demand Response Program	0	0	0	0.0	0.0	0.0
Distributed Generation	0	0	0	0.0	0.0	0.0
Conservation Voltage Reduction (CVR) Program	0	0	0	0.0	0.0	0.0
Governmental and Institutional Program	36	229	1,017	7.1	10.2	14.4
TOTAL PORTFOLIO	**89,184**	**502,397**	**749,749**	**24.1**	**41.2**	**55.5**
TOTAL PORTFOLIO INCLUDING LINE LOSSES[1]	**n/a**	**n/a**	**n/a**	**n/a**	**TBD**	**TBD**
NOTES: [1] For cumulative results through Plan year 3 demand reductions are at the customer level. Reported results for PY4 will include the addition of line losses.						

Table 1-5: PYTD Verified Gross Demand Reduction by Program

Program	PYTD Reported Gross Demand Savings (MW/Year)	PYTD Demand Realization Rate	PYTD Verified Gross Demand Savings (MW/Year)	PYTD Confidence	PYTD Achieved Precision	CPITD Verified Gross Demand Savings (MW/Year)
Residential Appliance Turn-In Program	1.0	77.4%	0.8	90%	8%	1.5
Residential Energy Efficient Products Program	2.2	93.2%	2.1	90%	3%	5.7
Residential Energy Efficient HVAC Equipment Program	0.5	69.7%	0.3	90%	5%	1.1
Residential Home Performance Program	4.8	98.5%	4.8	90%	3%	5.3
Critical Peak Rebate (CPR) Rate	0.0	n/a	0.0	0	0%	0
Limited Income Energy Efficiency Program (LIEEP)	1.4	80.0%	1.1	90%	6%	2.0
Joint Utility Usage Management Program	0.1	93.0%	0.1	90%	8%	0.1
Commercial & Industrial Equipment Program - Small	17.6	68.5%	~~12.2~~ 12.1	90%	0%	14.3
Time of Use (TOU) with Critical Peak Pricing (CPP) Rate	0.0	n/a	0.0	0	0%	0
Commercial & Industrial Equipment Program - Large	3.4	104.7%	3.6	90%	0%	4.4
Customer Load Response Program	0.0	n/a	0.0	0	0%	0
Customer Resources Demand Response Program	0.0	n/a	0.0	0	0%	0
Distributed Generation Program	0.0	n/a	0.0	0	0%	0
Conservation Voltage Reduction (CVR) Program	0.0	n/a	0.0	0	0%	0
Governmental and Institutional Program	10.2	95.4%	~~10.0~~ 9.7	90%	0%	13.1
TOTAL PORTFOLIO	**41.2**	**84.4%**	~~**34.4**~~ **34.5**	**90%**	**2%**	**47.4**
TOTAL PORTFOLIO INCLUDING LINE LOSSES[1]	**TBD**	**TBD**	**TBD**	**TBD**	**TBD**	**TBD**

NOTES: [1] For cumulative results through Plan year 3 demand reductions are at the customer level. Reported results for PY4 will include the addition of line losses.

1.5 Summary of PY3 Net to Gross Ratios

Per the 2011 TRC Order, EDCs are required to conduct Net-to-Gross (NTG) research. Act 129 compliance is based on gross savings, but the Company's Evaluators are presently finalizing a portfolio-level net to gross survey to inform the program planning for Phase II of Act 129. The evaluation of the legacy FirstEnergy companies included net-to-gross research based on Program Year 3 (PY3) participants. Given the mid-year transition of West Penn Power programs to FirstEnergy's model, West Penn Power specific net-to-gross research was not conducted. The evaluation team plans to complete net-to-gross research on West Penn Power program participants starting in February 2013 and based on six months of PY4 participants. These results will be available in time to inform the final plans for Phase II. The Net-

to-Gross data acquisition will be based on participant self-report surveys and will follow a similar approach as that used for the FirstEnergy legacy companies.

1.6 Summary of Portfolio Finances and Cost-Effectiveness

A breakdown of the portfolio finances is presented in **Table 1-6**.

Table 1-6: Summary of Portfolio Finances

	IQ ($1,000)	PYTD ($1,000)	CPITD ($1,000)
EDC Incentives to Participants	$4,211	$16,813	$24,121
EDC Incentives to Trade Allies			
Subtotal EDC Incentive Costs	**$4,211**	**$16,813**	**$24,121**
Design & Development		$79	$1,787
Administration[1]	$196	$1,117	$3,551
Management[2]			
Marketing[3]	$693	$1,886	$5,085
Technical Assistance	$3,093	$7,354	$10,245
Subtotal EDC Implementation Costs	**$3,982**	**$10,436**	**$20,667**
EDC Evaluation Costs	$79	$552	$1,515
SWE Audit Costs	$350	$950	$1,994
Total EDC Costs[4]	$8,622	$28,750	$48,298
Participant Costs[5]	$3,539	$42,081	$53,193
Total TRC Costs[6]	**$7,599**	**$53,068**	**$75,376**
Total Lifetime Energy Benefits	**$49,473**	**$121,671**	**$161,239**
Total Lifetime Capacity Benefits	**$3,340**	**$7,111**	**$10,463**
Total TRC Benefits[7]	**N/A**	**$128,781**	**$171,702**
TRC Ratio[8]	**N/A**	~~**2.40**~~ 2.43	~~**2.26**~~ 2.28

NOTES

Per PUC direction, TRC inputs and calculations are required in the Annual Report only and should comply with the 2011 Total Resource Cost Test Order approved July 28, 2011. Please see the "Report Definitions" section of this report for more details.

[1] Includes the administrative CSP (rebate processing), tracking system, and general administration and clerical cost.

[2] Includes EDC program management, CSP program management, general management oversight, and major accounts.

[3] Includes the marketing CSP and marketing costs by program CSPs.

[4] Per the 2011 Total Resource Cost Test Order, the Total EDC Costs refer to EDC incurred expenses only.

[5] Per the 2011 Total Resource Cost Test Order, the net Participant Costs are the costs for the end-use customer.

[6] Total TRC Costs includes EDC Evaluation Costs, EDC Implementation Costs and Participant Costs.

[7] Total TRC Benefits equals the sum of Total Lifetime Energy Benefits and Total Lifetime Capacity Benefits. Based upon verified gross kWh and kW savings. Benefits include: avoided supply costs, including the reduction in costs of electric energy, generation, transmission, and distribution capacity, and natural gas valued at marginal cost for periods when there is a load reduction.

[8] TRC Ratio equals Total TRC Benefits divided by Total TRC Costs.

1.7 Summary of Cost-Effectiveness by Program

TRC ratios are calculated by comparing the total TRC benefits and the total TRC costs. **Table 1-7** shows the TRC ratios by program and other factors used in the TRC ratio calculation.

Table 1-7: PYTD TRC Ratios by Program

Program	TRC Benefits ($1000)	TRC Costs ($1000)	TRC Ratio	Discount Rate	Line Loss Factor
Residential Appliance Turn-In Program	$2,024	$1,040	1.95	9.03%	11%
Residential Energy Efficient Products Program	$10,975	$4,287	2.56	9.03%	11%
Residential Energy Efficient HVAC Equipment Program	$826	$567	1.46	9.03%	11%
Residential Home Performance Program	$38,360	$9,290	4.13	9.03%	11%
Critical Peak Rebate (CPR) Rate	n/a	$195	n/a	n/a	n/a
Limited Income Energy Efficiency Program (LIEEP)	$2,296	$4,618	0.50	9.03%	11%
Joint Utility Usage Management Program	$633	$612	1.03	9.03%	11%
Commercial & Industrial Equipment Program - Small	$19,792	$6,301	3.14	9.03%	11%
Time of Use (TOU) with Critical Peak Pricing (CPP) Rate	n/a	$37	n/a	n/a	n/a
Commercial & Industrial Equipment Program - Large	$11,407	$4,930	2.31	9.03%	11%
Customer Load Response Program	n/a	$68	n/a	n/a	n/a
Customer Resources Demand Response Program	n/a	$462	n/a	n/a	n/a
Distributed Generation Program	n/a	$17	n/a	n/a	n/a
Conservation Voltage Reduction (CVR) Program	n/a	$99	n/a	n/a	n/a
Governmental and Industrial Program	$42,497	$20,545	2.07	9.03%	11%

2 Residential Appliance Turn-In Program

Provides residential customers a cash incentive and disposal of up to two large older efficient appliances (refrigerators and freezers); and two Room Air Conditioners (RAC) per household per calendar year. All units must be working and meet established size requirements.

2.1 Program Updates

As of January 1, 2012, West Penn Power's Energy Efficient Appliance Turn-In Program offerings and rebate levels were aligned with the program offerings and rebate levels of the other three FirstEnergy Pennsylvania EDCs: Penn Power, Met-Ed and Penelec.

2.2 Impact Evaluation Gross Savings

This program provides incentives for the turn in of three appliance types: refrigerators, freezers, and room air conditioners. In PY3, refrigerators accounted for nearly 70% of the MWh reported and freezers for about 25%. The evaluation process used a combination of web surveys (the main data collection method) and follow-up phone calls to those who did not respond to the web survey.

The M&V values for this program are based on the energy savings resulting from a customer taking a refrigerator, freezer or RAC out of service. The savings from refrigerator recycling are stipulated in the TRM. The savings from RAC recycling are stipulated in an interim TRM protocol. While RAC energy savings are dependent on location and are mapped using the participant's zip code, RAC demand savings are not location dependent. The TRM protocols for refrigerator and freezer PY3 are substantially different than the previous protocols. In PY3, the deemed energy impacts for refrigerators and freezers are as follows:

Measure Description	Unit Annual Energy Savings	Unit Annual Demand Reduction
Refrigerator/Freezer Recycling without replacement	1,659 kWh	0.2057 kW
Refrigerator/Freezer Recycling with replacement with Energy Star	1,205 kWh	0.1494 kW
Refrigerator/Freezer Recycling with replacement with non-Energy Star[15]	1,091 kWh	0.1350 kW
RAC	Varies by Zip Code	0.6395 kW

[15] This entry is from the PY4 TRM. However, to avoid double-counting of energy savings.

Verifying the savings from this program requires telephone verification, with the final sample encompassing a range of participants entering the program at various times throughout the year. The verification survey was designed to identify whether a refrigerator or freezer was recycled without replacement or if it was replaced with a standard or Energy Star unit. The survey also verifies that the room AC, refrigerator, or freezer was operational at the time of retirement. A final step is necessary to avoid double-counting of savings in the case that a refrigerator is replaced with an Energy Star unit and rebated under the Efficient Products program. ADM conducted a database lookup to identify customers that recycled a refrigerator or freezer, and also received rebated for EnergyStar refrigerators or freezers were then subtracted from the gross verified savings for the program.

In PY3, there is a significant decrease in the average per-unit savings achieved by this program. This decrease is not due to poor program execution, but rather is due to the fact that the ex-ante per-unit savings estimations for the tracking database were developed with PY2 TRM protocols. The gross realization rate is essentially a reflection of the savings reduction associated with the PY3 TRM update.

The desk review determined program level realization rates of 0.740 and 0.774 for kWh and kW respectively.

In April 2012, Tetra Tech conducted a residential participant survey with customers to develop the Program Year three (PY3) program realization rates. The survey sample consisted of PY3 quarters one and two participants receiving rebates for recycling qualified refrigerators, freezers, and room air conditioners through the appliance recycling program (now referred to as the Residential Appliance Turn-In Program). Through PY3 quarter two, over 1,400 working appliances had been recycled by the program's implementer, JACO Environmental.

The impact evaluation for the appliance recycling program component included verification of installation through web surveys and was designed to verify that the room AC, refrigerator, or freezer was operational at the time of retirement as well as the age, location, and estimated use during the year prior to retirement of recycled unit.

The combined realization rates for the program are 0.740 for kWh and 0.774 for kW.

Table 2-1: Residential Appliance Turn-In Program Reported Results by Quarter

Reporting Period	Participants	Reported Gross Energy Savings (MWh/yr)	Reported Gross Demand Reduction (MW)	Incentives ($1,000)
PY3 Q1				
PY3 Q2				
PY3 Q3	928	1,631	0.2	$38
PY3 Q4	1,640	2,924	0.4	$102
PY3 Total*	3,753	6,233	0.9	$221
CPITD Total*	6,021	9,406	1.7	$417

Note: * Due to Plan change mid PY3: PY3 & CPITD Totals include adjustment for recycling previously report under Residential Energy Star & High Efficiency Appliance Program (currently called Residential Energy Efficient Products). PYTD 1,185 participants, 1,678 MWh, 0.34 MW and $81 incentives. CPITD 3,453 participants, 4,851 MWh, 1.1 MW and $277 incentives.

Table 2-2: Residential Appliance Turn-In Program Sampling Strategy for PY3

Stratum	Strata Boundaries	Population Size	Assumed Coefficient of Variation (C_v) or Proportion in Sample Design	Target Levels of Confidence & Precision	Target Sample Size	Achieved Sample Size	Evaluation Activity
Recycled Appliances	n/a[16]	1,434	0.5	90%, +/- 9.6%	70	75	Web surveys with follow-up phone calls
Program Total	n/a	1,434	0.5	90%, +/- 9.6%	70	75	

Table 2-3: PY3 Residential Appliance Turn-In Program Summary of Evaluation Results for Energy

Stratum	Reported Gross Energy Savings	Energy Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Energy Savings
Recycled Appliances	6,233	74.0%	0.4	0.06	4,612
Program Total	6,233	74.0%	0.4	0.06	4,612

[16] Strata boundaries for this sampling design are not applicable as a random sample was pulled for each measure's population that included all participants.

Table 2-4: PY3 Residential Appliance Turn-In Program Summary of Evaluation Results for Demand

Stratum	Reported Gross Demand Reduction	Demand Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Demand Reduction
Recycled Appliances	0.97	77.4%	0.4	0.06	0.75
Program Total	0.97	77.4%	0.4	0.06	0.75

2.3 Impact Evaluation Net Savings

Act 129 compliance is based on gross savings, but the Company's Evaluators are presently finalizing a portfolio-level net to gross survey to inform the program planning for Phase II of Act 129. The evaluation of the legacy FirstEnergy companies included net-to-gross research based on Program Year 3 (PY3) participants. Given the mid-year transition of West Penn Power programs to FirstEnergy's model, West Penn Power specific net-to-gross research was not conducted. The evaluation team plans to complete net-to-gross research on West Penn Power program participants starting in February 2013 and based on six months of PY4 participants. These results will be available in time to inform the final plans for Phase II. The Net-to-Gross data acquisition will be based on participant self-report surveys and will follow a similar approach as that used for the FirstEnergy legacy companies.

Program Sampling:

The sampling approach for this program is a simple random sample. Sample sizes will target 90% confidence level and 10% precision.

2.4 Process Evaluation

The objectives of the process evaluation study were to assess the following:

- Understand how customers heard about the recycling rebates
- Assess customer experiences participating in the Program
- Assess customer decision making processes and indicators of free-ridership
- Collect information about the customer's old appliance
- Collect housing characteristics and household demographics

Methodology

Tetra Tech conducted a Residential Participant Survey with a representative sample of customers who recycled qualified appliances and received a rebate in PY3 quarters one and two. The survey population was comprised of 1,434 "recycle only" customers, or customers that only received a rebate for recycling their appliance and did not receive a rebate for purchasing a qualified new appliance. A random sample of 203 records was selected from the population. Customers were sent a mail invitation to complete the on-line survey with email and telephone follow-up to maximize response.

Key Findings

- Most recycled appliances are replaced with high efficiency equipment. About 80 percent of recycled refrigerators and room air conditioners are replaced with a new, high efficiency appliance.
- Satisfaction with the program and with the implementation contractor is very high. Almost 90 percent of participants assign the program scores of eight or higher on a 10-point scale.

2.5 Financial Reporting

A breakdown of the program finances is presented in Table 2-5.

Table 2-5: Summary of Residential Appliance Turn-In Program Finances

	IQ ($1,000)	PYTD ($1,000)	CPITD ($1,000)
EDC Incentives to Participants	$102	$221	$417
EDC Incentives to Trade Allies			
Subtotal EDC Incentive Costs	**$102**	**$221**	**$417**
Design & Development			
Administration[1]	($18)	$28	$128
Management[2]			
Marketing[3]	$67	$276	$831
Technical Assistance	$165	$492	$943
Subtotal EDC Implementation Costs	**$213**	**$796**	**$1,902**
EDC Evaluation Costs	$5	$23	$84
SWE Audit Costs			
Total EDC Costs[4]	$321	$1,040	$2,403
Participant Costs[5]	$102	$221	$417
Total TRC Costs[6]	**$321**	**$1,040**	**$2,403**
Total Lifetime Energy Benefits	**$132**	**$1,893**	**$3,255**
Total Lifetime Capacity Benefits	**$9**	**$131**	**$262**
Total TRC Benefits[7]	**N/A**	**$2,024**	**$3,516**
TRC Ratio[8]	**N/A**	**1.95**	**1.46**

NOTES

Per PUC direction, TRC inputs and calculations are required in the Annual Report only and should comply with the 2011 Total Resource Cost Test Order approved July 28, 2011. Please see the "Report Definitions" section of this report for more details.

[1] Includes the administrative CSP (rebate processing), tracking system, and general administration and clerical cost.

[2] Includes EDC program management, CSP program management, general management oversight, and major accounts.

[3] Includes the marketing CSP and marketing costs by program CSPs.

[4] Per the 2011 Total Resource Cost Test Order, the Total EDC Costs refer to EDC incurred expenses only.

[5] Per the 2011 Total Resource Cost Test Order, the net Participant Costs are the costs for the end-use customer.

[6] Total TRC Costs includes EDC Evaluation Costs, Total EDC Implementation Costs and Participant Costs.

[7] Total TRC Benefits equals the sum of Total Lifetime Energy Benefits and Total Lifetime Capacity Benefits. Based upon verified gross kWh and kW savings. Benefits include: avoided supply costs, including the reduction in costs of electric energy, generation, transmission, and distribution capacity, and natural gas valued at marginal cost for periods when there is a load reduction.

[10] TRC Ratio equals Total TRC Benefits divided by Total TRC Costs.

3 Residential Energy Efficient Products Program

The Energy Efficient (EE) Products program provides financial incentives to customers and support to retailers that sell energy efficiency products. The program includes promotional support, point-of-sale materials, training, promotional events and "up-stream product buy-down" rebates to retailers, distributors or manufacturers for select products. Also includes existing catalogue sales channel, and support for community-based initiatives, or other distribution channels that can reliably document effective distribution of energy efficient products.

In addition to appliances, this program includes CFLs implemented through the retail channel as well as those distributed through give-away events and through the appliance recycling.[17]

3.1 Program Updates

On October 28, 2011, the Commission approved the Petition of West Penn Power Company, for modifications to its EE&C Plan. Immediately following approval, the Company began implementing the Amended EE&C Plan changes, which included the rebate reductions for refrigerator-freezers and freezers and the addition of a dehumidifier measure. It also included the addition of household product measures such as TVs, smart strips, torchiere floor lamps, and LED Holiday lights.

3.2 Impact Evaluation Gross Savings

Gross Impact for CFLs

Savings associated with the CFL component are estimated using a deemed approach, with the energy savings and demand reductions taken as deemed in accordance with the TRM.

There were two separate activities within the CFL component of this program in PY2: upstream discounts and giveaway events. The impact evaluation for both activities within the CFL program component includes the following verification elements:

- Review of shipment invoices, including types and quantities of CFLs distributed to participating retailers. These shipment invoices are carefully matched to the DSM tracking system to confirm proper counts and bulbs types claimed.
- Review of the DSM tracking system to assure there are no duplicate entries and that all bulbs were eligible for being counted in PY3 based on invoice dates.
- Review of CSP energy savings and demand reduction calculations.

[17] JACO Environmental representatives provide 8 compact fluorescent lights (CFLs) to customers at the time of appliance collection.

- A review of the assumptions regarding the wattages of the baseline incandescent bulbs presumed to be supplanted by CFLs is particularly important.
- For CFL giveaway events, a review of the event documentation including photographs and post-event reports.

Gross Impact for Appliances

Gross kWh savings for appliances sold through the Residential Energy Efficient Products program are estimated using a deemed approach for measures included in the statewide TRM. The impact evaluation for the appliance program component will include the following components:

- Verification of proper installation through on-site visits; and
- Review of CSP energy savings and demand reduction calculations
  - Calculations are reviewed to ensure that they are done according to the PA TRM or PA Interim TRM.
  - For three particular measures – room air conditioners, dehumidifiers, and clothes washers – the PA TRM requires a partially deemed approach. That is, certain characteristics of the appliance or the household in which the appliance is used affect the calculations.

The savings for dehumidifiers assumed that all of the rebated units had a capacity between 25 and 35 pints per day. This resulted in an understatement of energy savings attributable to dehumidifiers, as many of the units had capacities greater than that range (and accordingly greater deemed savings). The default export of the DSM tracking system for the program did not have a data field listing the capacities of each dehumidifier rebated. Fortunately, these parameters are captured and recorded in the tracking database, though in a format that precludes determination of these parameters for the census of the population[18]. Accordingly, ADM sampled a sufficiently large number of rebated dehumidifiers to check the distribution of capacities. Deemed energy savings and demand reductions from the PA TRM were applied to this sample of dehumidifiers and compared to the claimed savings in the DSM tracking system. The resulting realization rate was applied to the population of dehumidifiers rebated through the program.

The DSM tracking system energy savings calculations for clothes washers and dishwashers assumed that water heating fuel type was 58 percent electric and 42 percent gas. However, on-site data collection activities revealed that this was not necessarily the case. Based on the surveys conducted with PY3

[18] This is technically possible, and future exports may indeed include these essential fields. For the PY2 report, ADM staff needed to access the data on a rebate by rebate basis using the online "Vision DSM" database tool.

quarter one and quarter two program participants, this was updated to 45 percent electric and 55 percent gas. These energy savings were compared to the DSM tracking system's claims and used to develop a realization rate that was applied to the population of clothes washers and dishwashers rebated through the program.

The DSM tracking system assumed that programmable thermostats were all used on electric furnaces. ADM assumed that the statewide baseline study results for the type of heat statewide was applicable to WPP. Based on this review, the desk review realization rate for programmable thermostats was determined to 0.33 for kWh.

The other measures within this program resulted in realization rates for kWh and kW at or near 1.00 with minor data discrepancies or calculation corrections identified.

The M&V of the upstream CFL program component does not require field work or customer surveys. A census of shipment invoices along with the calculations in the DSM tracking system were reviewed to ensure that the energy savings and demand reductions are claimed according to the protocols in the PA TRM. The review determined a realization rate for the CFLs component of 0.999 for kWh and 0.985 for kW.

The sampling approach for the appliance rebate program component is batch- stratified random sampling on a quarterly basis (for on-site verification). A sample point in the context of the appliance rebate component of this program is defined as "one appliance." A census of the energy and demand savings calculations in the program tracking data are reviewed to ensure that the energy savings and demand reductions are claimed according to the protocols in the PA TRM, as described in the previous section.

The impact evaluation for the appliance program component included verification of installation through web surveys and a 0.983 savings realization rate across appliances offered was determined; that is, 98.3 percent of those surveyed that they purchased and installed qualified appliances, and participated in West Penn Power's Energy Efficient Products Program. Note that dehumidifiers were not included in the program participation files for PY3 quarter one and quarter two and therefore were not verified in the survey effort. This measure will be fully verified in PY4.

The combined overall program realization rates at the program level are 0.960 for kWh and 0.930 for kW.

Table 3-1: Residential Energy Efficient Products Program Reported Results by Quarter

Reporting Period	Participants	Reported Gross Energy Savings (MWh/yr)	Reported Gross Demand Reduction (MW)	Incentives ($1,000)
PY3 Q1*	6,986	3,005	0.6	$346
PY3 Q2*	5,194	2,992	0.5	$234
PY3 Q3	18,365	4,723	0.5	$443
PY3 Q4	25,147	4,750	0.2	$388
PY3 Total**	126,348	27,913	2.1	$1,521
CPITD Total**	325,956	69,000	5.8	$3,368

Note: * Reflects previously reported results under the Residential Energy Star and High Efficiency Appliance Program.
** Due to Plan change mid PY3: PY3 & CPITD Totals include adjustments for recycling moved to Residential Appliance Turn-In program, CFL Rewards program moved to Residential EE Products Program, Water Heater measure moved to Residential EE Products Program from Residential HVAC Program and CFL Giveaways moved to Residential EE Products Program from Home Performance Program amounting to total of: PYTD 70,656 participants, 12,443 MWh, 0.286 MW and $110 incentives; and CPITD 241,641 participants, 40,362 MWh, 1.26 MW and $536 incentives.

Table 3-2: Residential Energy Efficient Products Program Sampling Strategy for PY3

Stratum	Strata Boundaries	Population Size	Assumed Coefficient of Variation (C_v) or Proportion in Sample Design	Target Levels of Confidence & Precision	Target Sample Size	Achieved Sample Size	Evaluation Activity
Room Air Conditioner	n/a	1,058	0.5	90%, +/- 11.4%	50	65	Web survey with phone follow-up for non web survey response
Refrigerator/freezer	n/a	1,418	0.5	90%, +/- 11.4%	50	64	
Clothes washer	n/a	4,250	0.5	90%, +/- 11.6%	50	57	
Clothes dryer	n/a	2,257	0.5	90%, +/- 11.6%	50 combined (discontinued measures)	19	
Dishwasher	n/a	1,696	0.5			17	
Programmable thermostat	n/a	323	0.5			20	
Hot water heater	n/a	65	0.5	100%, +/- 0%	census	23	
Program Total	n/a[19]	11,067	0.5	90%, +/- 4.0%	~400	265	

[19] Strata boundaries for this sampling design are not applicable as a random sample was pulled for each measure's population that included all participants.

Table 3-3: PY3 Residential Energy Efficient Products Program Summary of Evaluation Results for Energy

Stratum	Reported Gross Energy Savings	Energy Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Energy Savings
Room Air Conditioner	97	95.5%	0.4	0.07	93
Refrigerator/freezer	2,614	100.0%	0.4	0.07	2,614
Clothes washer	2,744	79.3%	0.4	0.08	2,176
Clothes dryer	504	100.0%	0.4	0.13	504
Dishwasher	366	86.2%	0.4	0.14	315
Programmable Thermostat	743	33.2%	0.4	0.12	247
Hot water heater	367	100.0%	0.4	0.10	367
Dehumidifier	13	101.0%	n/a	n/a	13
CFL's	20,466	99.9%	0.4	0.05	20,446
Program Total	27,914	96.0%	0.4	0.03	26,767

Table 3-4: PY3 Residential Energy Efficient Products Program Summary of Evaluation Results for Demand

Stratum	Reported Gross Demand Reduction	Demand Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Demand Reduction
Room Air Conditioner	0.08	106.0%	0.4	0.07	0.08
Refrigerator/freezer	0.32	100.0%	0.4	0.07	0.32
Clothes washer	0.61	80.4%	0.4	0.08	0.49
Clothes dryer	0.18	98.5%	0.4	0.13	0.18
Dishwasher	0.07	94.5%	0.4	0.14	0.07
Programmable Thermostat	0.00	n/a	n/a	n/a	0.00
Hot water heater	0.03	96.0%	0.4	0.10	0.30
Dehumidifier	0.00	10.0%	n/a	n/a	0.00
CFL's	~~0.83~~ 0.95	98.5%	0.4	0.05	~~0.82~~ 0.93
Program Total	2.25	~~91.6%~~ 93.2%	0.4	0.03	~~2.06~~ 2.11

3.3 Impact Evaluation Net Savings

Act 129 compliance is based on gross savings, but the Company's Evaluators are presently finalizing a portfolio-level net to gross survey to inform the program planning for Phase II of Act 129. The evaluation of the legacy FirstEnergy companies included net-to-gross research based on Program Year 3 (PY3) participants. Given the mid-year transition of West Penn Power programs to FirstEnergy's model, West Penn Power specific net-to-gross research was not conducted. The evaluation team plans to complete net-to-gross research on West Penn Power program participants starting in February 2013 and based on six months of PY4 participants. These results will be available in time to inform the final plans for Phase II. The Net-to-Gross data acquisition will be based on participant self-report surveys and will follow a similar approach as that used for the FirstEnergy legacy companies.

3.4 Process Evaluation

The objectives of this survey were to assess the following:

- Understand how customers heard about the rebate offerings
- Assess customer experiences participating in the programs
- Assess customer decision making processes and indicators of free-ridership
- Collect appliance use information
- Collect housing characteristics and household demographics

Methodology

Data were collected on-line with self-administered Web survey. Customers were sent a postcard that explained the goals of the study and asked them to complete the on-line survey. Email and telephone follow-up with non-responding households were used when possible to maximize response.

A stratified random sample was established using the following steps:

- Identified and removed duplicate records within each appliance and grouped records where customers were able to receive multiple room air conditioner rebates.
- Randomly sampled rebate records at the appliance level.
- Prepared sampled records for the web survey grouping by household. For households that had received a rebate for more than one appliance, Tetra Tech opted to focus the survey on a single appliance to reduce the respondent burden of completing a much longer survey across multiple appliance types.

Key Findings

- Verified savings attributable to the program are very high. Over 98 percent of surveyed participants confirm the purchase and installation of qualified appliances.
- The program's marketing efforts and use of multiple channels have been successful. Retail stores, contractors, newspapers, and bill inserts are most often cited as a primary source of information by appliance participants. One in ten participants learned of the program from the utility's website.
- Satisfaction with the program is high but expectations of EE appliances are not always met. Almost 90 percent of participants give the program very high marks (eight or higher on a 10-point scale). However, only two-thirds of participants express similar levels of satisfaction with the newly-installed EE appliance.

3.5 Financial Reporting

A breakdown of the program finances is presented in Table 3-5.

Table 3-5: Summary of Residential Energy Efficient Products Program Finances

	IQ ($1,000)	PYTD ($1,000)	CPITD ($1,000)
EDC Incentives to Participants	$388	$1,528	$3,368
EDC Incentives to Trade Allies			
Subtotal EDC Incentive Costs	**$388**	**$1,528**	**$3,368**
Design & Development		$10	$265
Administration[1]	$21	$159	$372
Management[2]			
Marketing[3]	$104	$579	$2,144
Technical Assistance	$99	$512	$856
Subtotal EDC Implementation Costs	**$224**	**$1,259**	**$3,638**
EDC Evaluation Costs	$13	$86	$292
SWE Audit Costs			
Total EDC Costs[4]	$625	$2,874	$7,298
Participant Costs[5]	**$338**	**$2,942**	**$7,482**
Total TRC Costs[6]	**$575**	**$4,287**	**$11,412**
Total Lifetime Energy Benefits	~~$359~~ **$409**	~~$9,258~~ **$10,531**	~~$25,991~~ **$27,264**
Total Lifetime Capacity Benefits	~~$37~~ **$38**	~~$436~~ **$444**	~~$1,317~~ **$1,324**
Total TRC Benefits[7]	**N/A**	**$9,695**	**$27,308**
TRC Ratio[8]	**N/A**	~~**2.26**~~ **2.56**	~~**2.39**~~ **2.51**

NOTES

Per PUC direction, TRC inputs and calculations are required in the Annual Report only and should comply with the 2011 Total Resource Cost Test Order approved July 28, 2011. Please see the "Report Definitions" section of this report for more details.

[1] Includes the administrative CSP (rebate processing), tracking system, and general administration and clerical cost.

[2] Includes EDC program management, CSP program management, general management oversight, and major accounts.

[3] Includes the marketing CSP and marketing costs by program CSPs.

[4] Per the 2011 Total Resource Cost Test Order, the Total EDC Costs refer to EDC incurred expenses only.

[5] Per the 2011 Total Resource Cost Test Order, the net Participant Costs are the costs for the end-use customer.

[6] Total TRC Costs includes EDC Evaluation Costs, Total EDC Implementation Costs and Participant Costs.

[7] Total TRC Benefits equals the sum of Total Lifetime Energy Benefits and Total Lifetime Capacity Benefits. Based upon verified gross kWh and kW savings. Benefits include: avoided supply costs, including the reduction in costs of electric energy, generation, transmission, and distribution capacity, and natural gas valued at marginal cost for periods when there is a load reduction.

[10] TRC Ratio equals Total TRC Benefits divided by Total TRC Costs.

4 Residential Energy Efficient HVAC Equipment Program

This program provides incentives supporting implementation of contractor-installed HVAC, or other eligible systems in existing or new residential buildings. This program involves promoting the sale of high-efficiency, ENERGY STAR® compliant equipment through installation contractors selling to residential customers who are replacing existing home HVAC equipment. The program will replace existing or standard HVAC equipment in residential applications with heating and cooling systems approved by the ENERGY STAR® program of the US EPS/DOE.

The program also provides incentives for maintenance (tune-ups) of existing central air conditioners or heat pump equipment, and will offer an incentive toward replacement of furnace fans meeting Energy Star efficiency guidelines.

4.1 Program Updates

On October 28, 2011, the Commission approved the Petition of West Penn Power Company, for modifications to its EE&C Plan. Immediately following approval, the Company began implementing the Amended EE&C Plan changes, which included an increase in rebate values for both the replacement and maintenance of HVAC units.

4.2 Impact Evaluation Gross Savings

Savings associated with HVAC equipment types are estimated using a partially deemed approach, with the kWh reduction determined using deemed hours of operation of the equipment determined by which reference city the installed location is closest to an nameplate information from the equipment regarding unit capacities and efficiencies. For all new HVAC systems, the baseline efficiencies are stipulated in the PA TRM and are in accordance with Federal codes and standards. Savings associated with HVAC maintenance, or tune-ups, are estimated using the PA TRM protocols for savings calculations.

The desk review indicated that the reported gross savings were under-calculated and adjustments were made based on model/make specific capacities, efficiencies and a more nuanced mapping of home to the TRM cities for EFLH. This resulted in desk review realization rates of 1.216 and 0.697 for kWh and kW respectively.

The impact evaluation for the HVAC equipment component of the program included verification of installation through web surveys and a 1.00 realization rate was determined. The findings parallel the 2011 realization rate, which included verification through a web survey and onsite inspections to verify installation and nameplate information for comparison to program records and the tracking system. The EM&V team determined a realization rate of 0.855 for the HVAC tune-up.

The combined desk review and survey verification realization rates for this program are 1.216 and 0.697 for kWh and kW respectively.

Table 4-1: Residential Energy Efficient HVAC Equipment Program Reported Results by Quarter

Reporting Period	Participants	Reported Gross Energy Savings (MWh/yr)	Reported Gross Demand Reduction (MW)	Incentives ($1,000)
PY3 Q1	440	462	0.1	$62
PY3 Q2	550	393	0.1	$54
PY3 Q3	316	377	0.2	$48
PY3 Q4	249	106	0.1	$126
PY3 Total*	1,490	1,134	0.5	$289
CPITD Total*	3,473	3,235	1.2	$631

Note: *Due to Plan change mid PY3: PY3 & CPITD Totals include adjustment for Water Heater measure previously reported under Residential Home Appliance Efficiency Program (currently called Residential Energy Efficient HVAC Equipment) moved Residential Energy Efficient Products Program. PYTD (65) participants, (204) MWh, 0 MW and ($1) incentives. CPITD (68) participants, (215) MWh, (0.02) MW and ($13) incentives.

Table 4-2: Residential Energy Efficient HVAC Equipment Program Sampling Strategy for PY3

Stratum	Strata Boundaries	Population Size	Assumed Coefficient of Variation (C_v) or Proportion in Sample Design	Target Levels of Confidence & Precision	Target Sample Size	Achieved Sample Size	Evaluation Activity
Heat Pump (ASHP/GSHP)	n/a	280	0.5	90%, +/- 10.5%	50	61	Web survey with phone follow-up for non Web survey response
Central air conditioner	n/a	297	0.5	90%, +/- 10.6%	50	66	
Maintenance (tune-up)	Na/	448	0.5	90%, +/- 11%	50	41	
Program Total	n/a[20]	1,025	0.5	90%, +/- 6.2%	150	168	

[20] Strata boundaries for this sampling design are not applicable as a random sample was pulled for each measure's population that included all participants.

Table 4-3: PY3 Residential Energy Efficient HVAC Equipment Summary of Evaluation Results for Energy

Stratum	Reported Gross Energy Savings	Energy Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Energy Savings
Heat Pump (ASHP/GSHP)	849	135%	0.4	0.07	1,140
Central air conditioner	132	81.1%	0.4	0.06	107
Maintenance (tune-up)	153	85.5%	0.4	0.09	131
Program Total	1,134	121.6%	0.4	0.04	1,378

Table 4-4: PY3 Residential Energy Efficient HVAC Equipment Program Summary of Evaluation Results for Demand

Stratum	Reported Gross Demand Reduction	Demand Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Demand Reduction
Heat pump (ASHP.GSHP)	0.17	73.4%	0.4	0.07	0.12
Central air conditioner	0.14	50.4%	0.4	0.06	0.07
Maintenance (tune-up)	0.17	74.9%	0.4	0.09	0.14
Program Total	0.47	69.7%	0.4	0.04	0.33

4.3 Impact Evaluation Net Savings

Act 129 compliance is based on gross savings, but the Company's Evaluators are presently finalizing a portfolio-level net to gross survey to inform the program planning for Phase II of Act 129. The evaluation of the legacy FirstEnergy companies included net-to-gross research based on Program Year 3 (PY3) participants. Given the mid-year transition of West Penn Power programs to FirstEnergy's model, West Penn Power specific net-to-gross research was not conducted. The evaluation team plans to complete net-to-gross research on West Penn Power program participants starting in February 2013 and based on six months of PY4 participants. These results will be available in time to inform the final plans for Phase II. The Net-to-Gross data acquisition will be based on participant self-report surveys and will follow a similar approach as that used for the FirstEnergy legacy companies.

4.4 Process Evaluation

During PY3 quarter 1 and quarter 2, over 500 central air conditioners and heat pumps have been rebated through the Efficient HVAC Equipment Program. An additional 448 HVAC tune-ups were rebated. A web survey and follow-up phone calls to those who did not respond to the web survey were

used to collect information from randomly sampled groups of participating West Penn Power customers.

The objectives of this survey were to assess the following:

- Understand how customers heard about the rebate offerings
- Assess customer experiences participating in the programs
- Assess customer decision making processes and indicators of free-ridership
- Collect programmable thermostat measure use information
- Collect housing characteristics and household demographics

Methodology

A stratified random sample was implemented based on the following steps:

- Identified and removed duplicate records within each equipment type and tune-up (i.e., measure) category.
- Randomly sampled rebate records at the measure level.
- Prepared sampled records for the web survey by aggregating to a household level. In some instances, customers received rebates for multiple types of measures. However, each household had one specific sampled measure for which they were surveyed. Tetra Tech opted to focus the survey on a single measure to reduce the respondent burden of completing a much longer survey across multiple measure types.

Tetra Tech conducted a residential participant survey with a representative sample of customers who received rebates from the HVAC Equipment Program during PY3 quarters one or two. A random sample of 426 records was selected from the population and included equal numbers of participants from each of the three program components. Data were collected on-line with a self-administered Web survey. Customers were sent a postcard that explained the goals of the study and asked them to complete the on-line survey. Email and telephone follow-up with non-responding households were used when possible to maximize response.

Key Finding

- Satisfaction with the program is high but expected energy savings are not always met. Upwards of 90 percent of participants give the program very high marks (eight or higher on a 10-point scale). Fewer participants (60 to 65 percent) are highly satisfied with the rebate amount or the energy savings that resulted from the installation. The energy benefits of central air conditioning are more often recognized than those deriving from a high efficiency heat pump.

4.5 Financial Reporting

A breakdown of the program finances is presented in Table 4-5.

Table 4-5: Summary of Residential Energy Efficient HVAC Equipment Program Finances

	IQ ($1,000)	PYTD ($1,000)	CPITD ($1,000)
EDC Incentives to Participants	$126	$277	$631
EDC Incentives to Trade Allies			
Subtotal EDC Incentive Costs	**$126**	**$277**	**$631**
Design & Development		$4	$123
Administration[1]	$3	$22	$133
Management[2]			
Marketing[3]	$32	$49	$200
Technical Assistance	$67	$123	$258
Subtotal EDC Implementation Costs	**$103**	**$198**	**$715**
EDC Evaluation Costs	($4)	$31	$99
SWE Audit Costs			
Total EDC Costs[4]	$225	$506	$1,444
Participant Costs[5]	**$338**	**$338**	**$1,017**
Total TRC Costs[6]	**$437**	**$567**	**$1,830**
Total Lifetime Energy Benefits	$745	$745	$2,008
Total Lifetime Capacity Benefits	$81	$81	$327
Total TRC Benefits[7]	**N/A**	**$826**	**$2,335**
TRC Ratio[8]	**N/A**	**1.46**	**1.28**

NOTES

Per PUC direction, TRC inputs and calculations are required in the Annual Report only and should comply with the 2011 Total Resource Cost Test Order approved July 28, 2011. Please see the "Report Definitions" section of this report for more details.

[1] Includes the administrative CSP (rebate processing), tracking system, and general administration and clerical cost.

[2] Includes EDC program management, CSP program management, general management oversight, and major accounts.

[3] Includes the marketing CSP and marketing costs by program CSPs.

[4] Per the 2011 Total Resource Cost Test Order, the Total EDC Costs refer to EDC incurred expenses only.

[5] Per the 2011 Total Resource Cost Test Order, the net Participant Costs are the costs for the end-use customer.

[6] Total TRC Costs includes EDC Evaluation Costs, Total EDC Implementation Costs and Participant Costs.

[7] Total TRC Benefits equals the sum of Total Lifetime Energy Benefits and Total Lifetime Capacity Benefits. Based upon verified gross kWh and kW savings. Benefits include: avoided supply costs, including the reduction in costs of electric energy, generation, transmission, and distribution capacity, and natural gas valued at marginal cost for periods when there is a load reduction.

[10] TRC Ratio equals Total TRC Benefits divided by Total TRC Costs.

5 Residential Home Performance Program

This program offers households the ability to identify energy saving opportunities through various levels of home energy audits: 1) a self-administered on-line audit that analyzes historic energy use, and calculated energy savings based on customer responses to a series of questions, 2) a walk-through on-site audit administered by a trained professional auditor, and 3) a Residential Whole Building Comprehensive audit. The purpose of the audits is to identify energy savings opportunities, to install basic low-cost measures, and to make customers aware of other programs offered by the Company, such as whole house wellness programs or programs they support, such as the Keystone Home Loan Program, to help customers implement the recommendations. The on-line and walk-through on-site audits generate delivery of an efficiency measures kit.

This program also offers customers interested in a comprehensive audit, the Residential Whole Building component provides comprehensive diagnostic assessments followed by direct installation of selected low cost measures plus incentives to households for implementation of measures addressing building shell, appliances and other energy consuming features.

The Home Performance Program includes the distribution of CFLs through several CFL promotional channels, including Opt-in, Smart Meter, Online Analyzer, School Kits, and a UPMC mailing. The UPMC mailing also included lime lights and smart strips, although these represent less than 2 percent of reported savings within the program.

The Behavior Modification and Education portion of this program is focused on ways customers can implement no-cost or low-cost measures and behaviors that offer opportunities to reduce energy consumption or demand. This component will be implemented in PY4.

5.1 Program Updates

On October 28, 2011, the Commission approved the Petition of West Penn Power Company, for modifications to its EE&C Plan. Immediately following approval, the Company began implementing the Amended EE&C Plan changes to implement the Walk Thru and Whole House Audits.

5.2 Impact Evaluation Gross Savings

In PY3, there are reported savings for the CFLs give-away components of the program only. The CFL Opt-in and Smart meter mailings accounted for nearly 90 percent of the total program savings. The CFL Opt-in mailing consisted of:

- four 13W CFLs (60W equivalent)
- two 23W or 26W (100W equivalent)

The smart meter mailing included:

- four 13W CFLs (60W equivalent)
- one 18W CFL (75W equivalent)
- one 23W CFL (100W equivalent)

ADM conducted a desk review of the program savings calculator. This review indicated that nearly all savings were calculated correctly with the exception of one line item for which a correction was made to the per-unit energy savings. This results in program level desk review realization rates of 0.985 for both kWh and kW.

To verify installation for these program components, Tetra Tech conducted a residential participant survey with a representative sample of customers who received CFLs through these two efforts in PY3 quarter 1 and quarter 2. The survey population was comprised of 272,083 records of CFL Giveaways. A random sample of 284 records was selected from the population. Data were collected on-line with a self-administered online survey. Email and telephone follow-up with non-responding households were used when possible to maximize response. The resulting realization rate determined was 1.0.

Table 5-1: Residential Home Performance Program Reported Results by Quarter

Reporting Period	Participants	Reported Gross Energy Savings (MWh/yr)	Reported Gross Demand Reduction (MW)	Incentives ($1,000)
PY3 Q1	81,674	26,213	1.2	$1,248
PY3 Q2	196,125	60,848	2.8	$3,088
PY3 Q3	31,723	9,732	0.4	$492
PY3 Q4	31,705	12,105	0.5	$365
PY3 Total*	335,683	106,297	4.8	$5,193
CPITD Total*	372,486	117,532	5.5	$5,744

Note: *Due to Plan change mid PY3: PY3 & CPITD Totals include adjustment for CFL Giveaways reported under Home Performance Program and moved to Residential Energy Efficient Products Program. PYTD (5,544) participants, (2,601) MWh, (0.126) MW. CPITD (15,379) participants, (4,750) MWh, (0.24) MW and ($119) incentives.

Table 5-2: Residential Home Performance Program Sampling Strategy for PY3

Stratum	Strata Boundaries	Population Size	Assumed Coefficient of Variation (C_v) or Proportion in Sample Design	Target Levels of Confidence & Precision	Target Sample Size	Achieved Sample Size	Evaluation Activity
CFLs (Opt-in & Smart Meter)	n/a	272,083	0.5	90%, +/- 8.2%	100	117	Web survey with phone follow-up for non web survey response
Program Total	n/a[21]	272,083	0.5	90%, +/- 8.2%	100	117	

Table 5-3: PY3 Residential Home Performance Summary of Evaluation Results for Energy

Stratum	Reported Gross Energy Savings	Energy Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Energy Savings
CFLs (Opt-in & Smart Meter)	106,297	98.5%	0.4	0.00	104,703
Program Total	106,297	98.5%	0.4	0.00	104,703

Table 5-4: PY3 Residential Home Performance Program Summary of Evaluation Results for Demand

Stratum	Reported Gross Demand Reduction	Demand Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Demand Reduction
CFLs (Opt-in & Smart Meter)	4.85	98.5%	0.4	0.00	4.78
Program Total	4.85	98.5%	0.4	0.00	4.78

5.3 Impact Evaluation Net Savings

Act 129 compliance is based on gross savings, but the Company's Evaluators are presently finalizing a portfolio-level net to gross survey to inform the program planning for Phase II of Act 129. The evaluation of the legacy FirstEnergy companies included net-to-gross research based on Program Year 3 (PY3) participants. Given the mid-year transition of West Penn Power programs to FirstEnergy's model, West Penn Power specific net-to-gross research was not conducted. The evaluation team plans to

[21] Strata boundaries for this sampling design are not applicable as a random sample was pulled for each measure's population that included all participants.

complete net-to-gross research on West Penn Power program participants starting in February 2013 and based on six months of PY4 participants. These results will be available in time to inform the final plans for Phase II. The Net-to-Gross data acquisition will be based on participant self-report surveys and will follow a similar approach as that used for the FirstEnergy legacy companies.

5.4 Process Evaluation

The objectives of this survey were to assess the following:

- Understand how customers heard about the rebate offerings
- Assess customer experiences participating in the programs
- Assess customer decision making processes and indicators of free-ridership
- Collect appliance use information
- Collect housing characteristics and household demographics

Methodology

Data were collected on-line with self-administered Web survey. Customers were sent a postcard that explained the goals of the study and asked them to complete the on-line survey. Email and telephone follow-up with non-responding households were used when possible to maximize response.

Key Findings

- The distribution of CFLs in the home is consistent with the 2011 Residential Survey findings. Over half (63 percent) of installed CFLs are located in four rooms: the living room, kitchen, master bedroom, and the family room/den. The remaining 37 percent are dispersed throughout the home and outside. Few CFLs are located in typical low-use areas, such as closets, storage areas, and utility rooms.
- Survey results indicate 63 percent of CFL Opt-in and smart meter participants reported that they would have purchased CFLs within one year had the promotion not been available; although, they would have purchased four CFLs on average, compared to the six they received through the giveaway.

5.5 Financial Reporting

A breakdown of the program finances is presented in Table 5-5.

Table 5-5: Summary of Residential Home Performance Program Finances

	IQ ($1,000)	PYTD ($1,000)	CPITD ($1,000)
EDC Incentives to Participants	$365	$5,198	$5,744
EDC Incentives to Trade Allies			
Subtotal EDC Incentive Costs	**$365**	**$5,198**	**$5,744**
Design & Development		$8	$135
Administration[1]	$31	$112	$229
Management[2]			
Marketing[3]	$121	$125	$847
Technical Assistance	$2,010	$3,773	$3,979
Subtotal EDC Implementation Costs	**$2,162**	**$4,019**	**$5,191**
EDC Evaluation Costs	$11	$72	$155
SWE Audit Costs			
Total EDC Costs[4]	$2,538	$9,290	$11,089
Participant Costs[5]	$365	$5,198	$5,744
Total TRC Costs[6]	**$2,538**	**$9,290**	**$11,089**
Total Lifetime Energy Benefits	$3,785	$37,654	$41,618
Total Lifetime Capacity Benefits	$75	$706	$811
Total TRC Benefits[7]	**N/A**	**$38,360**	**$42,429**
TRC Ratio[8]	**N/A**	**4.13**	**3.83**

NOTES

Per PUC direction, TRC inputs and calculations are required in the Annual Report only and should comply with the 2011 Total Resource Cost Test Order approved July 28, 2011. Please see the "Report Definitions" section of this report for more details.

[1] Includes the administrative CSP (rebate processing), tracking system, and general administration and clerical cost.

[2] Includes EDC program management, CSP program management, general management oversight, and major accounts.

[3] Includes the marketing CSP and marketing costs by program CSPs.

[4] Per the 2011 Total Resource Cost Test Order, the Total EDC Costs refer to EDC incurred expenses only.

[5] Per the 2011 Total Resource Cost Test Order, the net Participant Costs are the costs for the end-use customer.

[6] Total TRC Costs includes EDC Evaluation Costs, Total EDC Implementation Costs and Participant Costs.

[7] Total TRC Benefits equals the sum of Total Lifetime Energy Benefits and Total Lifetime Capacity Benefits. Based upon verified gross kWh and kW savings. Benefits include: avoided supply costs, including the reduction in costs of electric energy, generation, transmission, and distribution capacity, and natural gas valued at marginal cost for periods when there is a load reduction.

[10] TRC Ratio equals Total TRC Benefits divided by Total TRC Costs.

6 Residential Critical Peak Rebate (CPR) Program

This residential demand response program encourages customers to lower their demand during peak load hours by offering a rate discount/rebate based on actual demand reduction. The reduction can occur during predefined or notified peak hours. CPR could be competitively neutral to allow customers to continue to pay the same generation charge as on utility provided default service or from an electric generation supplier. CPR relies on the installation of a smart meter to measure the customer's demand during peak hours. Participants will receive additional information to assist them in controlling their demand and their electric bills.

6.1 Program Updates

There were no changes to this program during PY3.

6.2 Impact Evaluation Gross Savings

This program was operated between June 1 and September 30, 2012. There were no impacts reported for PY3. The net impact evaluation effort is underway as of this writing, but preliminary results are not yet available.

Table 6-1: Residential Critical Peak Rebate (CPR) Program Reported Results by Quarter

Reporting Period	Participants	Reported Gross Energy Savings (MWh/yr)	Reported Gross Demand Reduction (MW)	Incentives ($1,000)
PY3 Q1	0	0	0.0	$0
PY3 Q2	0	0	0.0	$0
PY3 Q3	0	0	0.0	$0
PY3 Q4	0	0	0.0	$0
PY3 Total	0	0	0.0	$0
CPITD Total	0	0	0.0	$0

Table 6-2: Residential Critical Peak Rebate (CPR) Program Sampling Strategy for PY3

Stratum	Strata Boundaries	Population Size	Assumed Coefficient of Variation (C_v) or Proportion in Sample Design	Target Levels of Confidence & Precision	Target Sample Size	Achieved Sample Size	Evaluation Activity
Critical Peak Rebate	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Program Total	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Table 6-3: PY3 Residential Critical Peak Rebate (CPR) Summary of Evaluation Results for Energy

Stratum	Reported Gross Energy Savings	Energy Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Energy Savings
Critical Peak Rebate	0	n/a	n/a	n/a	0
Program Total	0				0

Table 6-4: PY3 Residential Critical Peak Rebate (CPR) Program Summary of Evaluation Results for Demand

Stratum	Reported Gross Demand Reduction	Demand Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Demand Reduction
Critical Peak Rebate	0.0	n/a	n/a	n/a	0.0
Program Total	0.0				0.0

6.3 Impact Evaluation Net Savings

There were no impacts reported for PY3. The gross impact evaluation effort is underway as of this writing, but preliminary results are not yet available.

6.4 Process Evaluation

Process evaluation activities for this program will be detailed in PY4 reports. Activities to date include formal and informal interviews with WPP staff and participant surveys following the first summer 2012 event. Additional surveys will be conducted with participants and with customers that un-enrolled during the summer of 2012 and results compared to the survey conducted directly after the first event.

6.5 Financial Reporting

A breakdown of the program finances is presented in Table 6-5.

Table 6-5: Summary of Residential Critical Peak Rebate (CPR) Program Finances

	IQ ($1,000)	PYTD ($1,000)	CPITD ($1,000)
EDC Incentives to Participants	$0	$0	$0
EDC Incentives to Trade Allies			
Subtotal EDC Incentive Costs	**$0**	**$0**	**$0**
Design & Development		$4	$6
Administration[1]	$8	$43	$72
Management[2]			
Marketing[3]	$12	$126	$179
Technical Assistance	$4	$11	$32
Subtotal EDC Implementation Costs	**$24**	**$184**	**$289**
EDC Evaluation Costs	$2	$10	$17
SWE Audit Costs			
Total EDC Costs[4]	$26	$195	$306
Participant Costs[5]			
Total TRC Costs[6]			
Total Lifetime Energy Benefits			
Total Lifetime Capacity Benefits			
Total TRC Benefits[7]	**N/A**		
TRC Ratio[8]	**N/A**		

NOTES

Per PUC direction, TRC inputs and calculations are required in the Annual Report only and should comply with the 2011 Total Resource Cost Test Order approved July 28, 2011. Please see the "Report Definitions" section of this report for more details.

[1] Includes the administrative CSP (rebate processing), tracking system, and general administration and clerical cost.

[2] Includes EDC program management, CSP program management, general management oversight, and major accounts.

[3] Includes the marketing CSP and marketing costs by program CSPs.

[4] Per the 2011 Total Resource Cost Test Order, the Total EDC Costs refer to EDC incurred expenses only.

[5] Per the 2011 Total Resource Cost Test Order, the net Participant Costs are the costs for the end-use customer.

[6] Total TRC Costs includes EDC Evaluation Costs, Total EDC Implementation Costs and Participant Costs.

[7] Total TRC Benefits equals the sum of Total Lifetime Energy Benefits and Total Lifetime Capacity Benefits. Based upon verified gross kWh and kW savings. Benefits include: avoided supply costs, including the reduction in costs of electric energy, generation, transmission, and distribution capacity, and natural gas valued at marginal cost for periods when there is a load reduction.

[10] TRC Ratio equals Total TRC Benefits divided by Total TRC Costs.

7 Limited Income Energy Efficiency Program (LIEEP)

This program is an expansion of, and enhancement to the existing comprehensive Low-Income Usage Reduction Program (LIURP), and will provide additional electric usage savings measures and services to income-eligible customers. In addition, energy savings kits are offered when customers do not accept in-home services and/or when their electric usage is too low to qualify for other low income program services or in other situations that are identified to provide additional measures and obtain additional energy savings. Program Services are available to income qualified customers that reside in single family homes, mobile homes, duplexes, townhomes and multi-unit complexes. Services provided will be based on a detailed energy audit and tailored to the customer's energy consumption and home type.

7.1 Program Updates

Program administrators implemented changes that were approved by the Commission in the amended plan. The Statewide Evaluator (SWE), along with low-income program administrators, conducted site visits during the program year to verify that appropriate energy conservation measures were installed. In March 2012, program administrators created an inspection checklist, at the request of the SWE, in order to eliminate the need for additional SWE and program administrator site visits. The approved checklist will be completed by FirstEnergy third-party inspectors when they assess work performed by contractors. This improvement provides the SWE with the ability to review the checklist and pertinent customer information upon request.

To improve the direct installation of measures during home audits, as of January 1, 2012, auditors are paid only for the measures installed and not simply for the entire kit. Second, as of September 2012, WPP implemented third party quality assurance inspections.

7.2 Impact Evaluation Gross Savings

The impact evaluation effort for PY3 consisted of a participant telephone survey to verify receipt and installation of measures through the program, a review of the energy savings calculations, and a comparison of recorded installations in the tracking database with customer self-reports through the telephone survey. The verification phone survey was conducted with randomly selected program participants and each respondent was asked about each measure included within the energy efficiency kit to arrive at realization rates for each measure as described below.

The overall program-level realization rate is 0.80. This realization rate is lower than 1.0 primarily due to water saving measures.

- The evaluation team calculated the realization rate by comparing the number of CFLs recorded in the program database with the number of CFLs reported by customers through the survey and was calculated as 1.09. Overall, customers reported receiving a higher number of CFLs than what was recorded in the program data. Survey data revealed there was some confusion

amongst respondents who received CFLs from both the CFL give-away event (via mail) and the LIEEP program which may have contributed to the higher realization rate.

- The evaluation team calculated a realization rate of 0.58 and 0.41 for low-flow showerheads and faucet aerators, respectively. Two issues arose for these water saving devices. First, not all respondents recalled receiving the measures and, of those that did, almost three-quarters reported a fewer quantity received than what was recorded in the program data. Second, a significant portion of customer said their water heating fuel was something other than electric. These findings are substantiated by a review of the full program data, which documents water heating fuel type.

- The survey confirmed the receipt of room air conditioners and refrigerators for nearly all respondents. All respondents said they received the room air conditioner documented through the program for a realization rate on 1.0 and only one respondent said they did not receive a refrigerator for a realization rate of 0.96.

Table 7-1: Limited Income Energy Efficiency Program (LIEEP) Reported Results by Quarter

Reporting Period	Participants	Reported Gross Energy Savings (MWh/yr)	Reported Gross Demand Reduction (MW)	Incentives ($1,000)
PY3 Q1	2,051	2,221	0.5	$1,126
PY3 Q2	1,914	2,378	0.4	$1,163
PY3 Q3	259	2,168	0.3	$1,035
PY3 Q4	1,428	1,352	0.2	$829
PY3 Total	5,652	8,118	1.4	$4,152
CPITD Total	11,276	14,865	2.6	$7,021

Table 7-2: Limited Income Energy Efficiency Program (LIEEP) Sampling Strategy for PY3

Stratum	Strata Boundaries	Population Size	Assumed Coefficient of Variation (C_v) or Proportion in Sample Design	Target Levels of Confidence & Precision	Target Sample Size	Achieved Sample Size	Evaluation Activity
Low Income Home Check-up	n/a	5,020	0.5	90%, +/- 7.9%	105	115	Phone survey, savings calculations review, and tracking file review
Program Total	n/a[22]	5,020	0.5	90%, +/- 7.9%	105	115	

Table 7-3: PY3 Limited Income Energy Efficiency Program (LIEEP) Summary of Evaluation Results for Energy

Stratum	Reported Gross Energy Savings	Energy Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Energy Savings
Low Income Home Check-up	8,118	80.0%	0.4	0.05	6,494
Program Total	8,118	80.0%	0.4	0.05	6,494

Table 7-4: PY3 Limited Income Energy Efficiency Program (LIEEP) Summary of Evaluation Results for Demand

Stratum	Reported Gross Demand Reduction	Demand Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Demand Reduction
Low Income Home Check-up	1.41	80.0%	0.4	0.05	1.13
Program Total	1.41	80.0%	0.4	0.05	1.13

7.3 Impact Evaluation Net Savings

Act 129 compliance is based on gross savings, but the Company's Evaluators are presently finalizing a portfolio-level net to gross survey to inform the program planning for Phase II of Act 129. The evaluation of the legacy FirstEnergy companies included net-to-gross research based on Program Year 3

[22] Strata boundaries for this sampling design are not applicable as a random sample was pulled for each measure's population that included all participants.

(PY3) participants. Given the mid-year transition of West Penn Power programs to FirstEnergy's model, West Penn Power specific net-to-gross research was not conducted. The evaluation team plans to complete net-to-gross research on West Penn Power program participants starting in February 2013 and based on six months of PY4 participants. These results will be available in time to inform the final plans for Phase II. The Net-to-Gross data acquisition will be based on participant self-report surveys and will follow a similar approach as that used for the FirstEnergy legacy companies.

7.4 Process Evaluation

Tetra Tech conducted a telephone survey of customer who participated in the program in PY3 quarter 1 and quarter 2. The objective was to:

- Learn about the installation and use of measures
- Learn about experiences and satisfaction with participation in the program
- Understand their level of interaction with the auditors, what was learned, and actions taken as a result of the experience

Methodology

Tetra Tech randomly sampled 525 Home Performance Check-up participants with the aim of reaching 105 completed participant surveys out of a population of 5,020.

Key Findings

The audits are providing participants with new energy saving information and, as a result, customers are acting on some of those recommendations. With the exception of those that reside in multifamily buildings, most respondents recalled an auditor coming to their home and discussing ways to save energy. Auditors, on average, spent a little over an hour with customers. This time includes the 30 minutes of energy education to be provided to the customer as well as the walk-through audit. In addition, the program appears to be providing participants with some specific suggestions on how to save energy in their homes. A varying percentage of customers report acting on some of the recommendations based on the audit experience, including turning lights off when not in the room and unplugging electronics when not in use.

7.5 Financial Reporting

A breakdown of the program finances is presented in Table 7-5.

Table 7-5: Summary of Limited Income Energy Efficiency Program (LIEEP) Finances

	IQ ($1,000)	PYTD ($1,000)	CPITD ($1,000)
EDC Incentives to Participants	$829	$4,152	$7,021
EDC Incentives to Trade Allies			
Subtotal EDC Incentive Costs	**$829**	**$4,152**	**$7,021**
Design & Development		$5	$40
Administration[1]	$26	$89	$306
Management[2]			
Marketing[3]	$2	$6	$17
Technical Assistance	$76	$349	$692
Subtotal EDC Implementation Costs	**$104**	**$449**	**$1,056**
EDC Evaluation Costs	$5	$17	$52
SWE Audit Costs			
Total EDC Costs[4]	$938	$4,618	$8,128
Participant Costs[5]	$829	$4,152	$7,021
Total TRC Costs[6]	**$938**	**$4,618**	**$8,128**
Total Lifetime Energy Benefits	$357	$2,143	$4,512
Total Lifetime Capacity Benefits	$24	$153	$307
Total TRC Benefits[7]	**N/A**	**$2,296**	**$4,819**
TRC Ratio[8]	**N/A**	**0.50**	**0.59**

NOTES

Per PUC direction, TRC inputs and calculations are required in the Annual Report only and should comply with the 2011 Total Resource Cost Test Order approved July 28, 2011. Please see the "Report Definitions" section of this report for more details.

[1] Includes the administrative CSP (rebate processing), tracking system, and general administration and clerical cost.

[2] Includes EDC program management, CSP program management, general management oversight, and major accounts.

[3] Includes the marketing CSP and marketing costs by program CSPs.

[4] Per the 2011 Total Resource Cost Test Order, the Total EDC Implementation Costs refer to EDC incurred expenses only.

[5] Per the 2011 Total Resource Cost Test Order, the net Participant Costs are the costs for the end-use customer.

[6] Total TRC Costs includes EDC Evaluation Costs, Total EDC Costs and Participant Costs.

[7] Total TRC Benefits equals the sum of Total Lifetime Energy Benefits and Total Lifetime Capacity Benefits. Based upon verified gross kWh and kW savings. Benefits include: avoided supply costs, including the reduction in costs of electric energy, generation, transmission, and distribution capacity, and natural gas valued at marginal cost for periods when there is a load reduction.

[10] TRC Ratio equals Total TRC Benefits divided by Total TRC Costs.

8 Joint Utility Usage Management Program (JUUMP)

This program is an expansion of, and enhancement to the existing comprehensive Low-Income Usage Reduction Program (LIURP) and will provide additional electric energy savings measures and services to income-eligible customers through partnerships Natural Gas Distribution Companies (NGDC's) the Department of Community and Economic Development (DCED) Weatherization Assistance Program (WAP). In addition, energy savings kits are offered when customers do not accept in-home services and/or when their electric usage is too low to qualify for other low-income program services or in other situations that are identified to provide additional measures and obtain additional energy savings. Program services are available to income qualified customers that reside in single family homes, mobile homes, duplexes, townhomes and multi-unit complexes. Services provided will be based on a detailed energy audit and tailored to the customer's energy consumption and home type.

8.1 Program Updates

Program administrators implemented changes that were approved by the Commission in the amended plan regarding 2012 program design. WPP included a broader scope so that additional customers can participate in JUUMP. After several conference calls with Columbia Gas of Pennsylvania and an in-person meeting with Equitable Gas Company, JUUMP will continue. However, it will also include referrals to NGDC's. Both FirstEnergy and NGDC's will regularly exchange scheduled work lists. When a contractor for both utilities cannot be scheduled at the same time, each utility will schedule a work time that is convenient for the customer.

8.2 Impact Evaluation Gross Savings

The impact evaluation effort for PY3 consisted of a participant telephone survey to verify receipt and installation of measures through the program, a review of the energy savings calculations, and a comparison of recorded installations in the tracking database with customer self-reports through the telephone survey. The verification phone survey was conducted with randomly selected program participants and each respondent was asked about each measure included within the energy efficiency kit to arrive at realization rates for each measure as described below.

The overall program-level realization rates are fairly high with the savings-weighted program-level realization rate of 0.93. This realization rate is lower than 1.0 primarily due to water saving measures.

- The evaluation team calculated the realization rate by comparing the number of CFLs recorded in the program database with the number of CFLs reported by customers through the survey and was calculated as 1.22. Overall, customers reported receiving a higher number of CFLs than what was recorded in the program data. Survey data revealed there was some confusion amongst respondents who received CFLs from both the CFL give-away event (via mail) and the JUUMP program which may have contributed to the higher realization rate.

- The evaluation team calculated a realization rate of 0.21 and 0.28 for low-flow showerheads and faucet aerators, respectively. Two issues arose for these water saving devices. First, not all respondents recalled receiving the measures and, of those that did, almost three-quarters reported fewer quantity received than what was recorded in the program data. Second, a significant portion of customers said their water heating fuel was something other than electric. These findings are substantiated by a review of the full program data, which documents water heating fuel type.

- The survey confirmed the receipt of room air conditioners and refrigerators for all respondents for a realization rate of 1.0 for each appliance.

Table 8-1: Joint Utility Usage Management Program (JUUMP) Reported Results by Quarter

Reporting Period	Participants	Reported Gross Energy Savings (MWh/yr)	Reported Gross Demand Reduction (MW)	Incentives ($1,000)
PY3 Q1	31	39	0.007	$73
PY3 Q2	32	22	0.003	$97
PY3 Q3	31	15	0.00	$33
PY3 Q4	3,105	1,286	0.1	$145
PY3 Total	3,199	1,362	0.1	$348
CPITD Total	3,319	1,445	0.1	$524

Table 8-2: Joint Utility Usage Management Program (JUUMP) Sampling Strategy for PY3

Stratum	Strata Boundaries	Population Size	Assumed Coefficient of Variation (C_v) or Proportion in Sample Design	Target Levels of Confidence & Precision	Target Sample Size	Achieved Sample Size	Evaluation Activity
JUUMP program	n/a[23]	104	0.5	90%, +/- 8.1% bases on assumed 50% completed surveys (52)	census	25	Phone survey, savings calculations review, and tracking file review
Program Total	n/a	104	0.5	90%, +/- 14.3%	census	25	

Table 8-3: PY3 Joint Utility Usage Management Program (JUUMP) Summary of Evaluation Results for Energy

Stratum	Reported Gross Energy Savings	Energy Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Energy Savings
JUUMP program	1,362	93.0%	0.4	0.11	1,266
Program Total	1,362	93.0%	0.4	0.11	1,266

[23] Strata boundaries for this sampling design are not applicable as a random sample was pulled for each measure's population that included all participants.

Table 8-4: PY3 Joint Utility Usage Management Program (JUUMP) Summary of Evaluation Results for Demand

Stratum	Reported Gross Demand Reduction	Demand Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Demand Reduction
JUUMP program	0.08	93.0%	0.4	0.11	0.07
Program Total	0.08	93.0%	0.4	0.111	0.07

8.3 Impact Evaluation Net Savings

Act 129 compliance is based on gross savings, but the Company's Evaluators are presently finalizing a portfolio-level net to gross survey to inform the program planning for Phase II of Act 129. The evaluation of the legacy FirstEnergy companies included net-to-gross research based on Program Year 3 (PY3) participants. Given the mid-year transition of West Penn Power programs to FirstEnergy's model, West Penn Power specific net-to-gross research was not conducted. The evaluation team plans to complete net-to-gross research on West Penn Power program participants starting in February 2013 and based on six months of PY4 participants. These results will be available in time to inform the final plans for Phase II. The Net-to-Gross data acquisition will be based on participant self-report surveys and will follow a similar approach as that used for the FirstEnergy legacy companies.

8.4 Process Evaluation

Tetra Tech conducted a telephone survey of customers who participated in the program in PY3 quarter 1 and quarter 2. The objective was to:

- Learn about the installation and use of measures
- Learn about experiences and satisfaction with participating in the program
- Understand their level of interaction with the auditors, what was learned, and actions taken as a result of the experience

Methodology

Tetra Tech randomly sampled the 104 JUUMP participants with the aim of completing surveys with about 50 percent of the population.

Key Findings

The audits are providing participants with new energy saving information and, as a result, customers are acting on some of those recommendations. With the exception of those that reside in multifamily buildings, most respondents recalled an auditor coming to their home and discussing ways to save energy. Auditors, on average, spent a little over an hour with customers. This time includes the 30

minutes of energy education to be provided to the customer as well as the walk-through audit. In addition, the program appears to be providing participants with some specific suggestions on how to save energy in their homes. A varying percentage of customers report acting on some of the recommendations based on the audit experience, including turning lights off when not in the room and unplugging electronics when not in use.

8.5 Financial Reporting

A breakdown of the program finances is presented in **Error! Reference source not found.**

Table 8-5: Summary of Joint Utility Usage Management Program (JUUMP) Finances

	IQ ($1,000)	PYTD ($1,000)	CPITD ($1,000)
EDC Incentives to Participants	$145	$348	$524
EDC Incentives to Trade Allies			
Subtotal EDC Incentive Costs	**$145**	**$348**	**$524**
Design & Development		$5	$25
Administration[1]	$13	$59	$173
Management[2]			
Marketing[3]	$1	$6	$14
Technical Assistance	$16	$177	$283
Subtotal EDC Implementation Costs	**$31**	**$247**	**$496**
EDC Evaluation Costs	$2	$17	$50
SWE Audit Costs			
Total EDC Costs[4]	$178	$612	$1,069
Participant Costs[5]	$145	$348	~~$5247~~ **$524**
Total TRC Costs[6]	**$178**	**$612**	**$1,069**
Total Lifetime Energy Benefits	$582	$617	$656
Total Lifetime Capacity Benefits	$14	$17	$19
Total TRC Benefits[7]	**N/A**	**$633**	**$675**
TRC Ratio[8]	**N/A**	**1.03**	**0.63**

NOTES

Per PUC direction, TRC inputs and calculations are required in the Annual Report only and should comply with the 2011 Total Resource Cost Test Order approved July 28, 2011. Please see the "Report Definitions" section of this report for more details.

[1] Includes the administrative CSP (rebate processing), tracking system, and general administration and clerical cost.

[2] Includes EDC program management, CSP program management, general management oversight, and major accounts.

[3] Includes the marketing CSP and marketing costs by program CSPs.

[4] Per the 2011 Total Resource Cost Test Order, the Total EDC Costs refer to EDC incurred expenses only.

[5] Per the 2011 Total Resource Cost Test Order, the net Participant Costs are the costs for the end-use customer.

[6] Total TRC Costs includes EDC Evaluation Costs, Total EDC Implementation Costs and Participant Costs.

[7] Total TRC Benefits equals the sum of Total Lifetime Energy Benefits and Total Lifetime Capacity Benefits. Based upon verified gross kWh and kW savings. Benefits include: avoided supply costs, including the reduction in costs of electric energy, generation, transmission, and distribution capacity, and natural gas valued at marginal cost for periods when there is a load reduction.

[10] TRC Ratio equals Total TRC Benefits divided by Total TRC Costs.

9 Commercial & Industrial Equipment Program - Small

This program provides prescriptive and performance based incentives will reduce the first cost of high efficiency equipment thereby encouraging the adoption of high efficient equipment in lieu of standard equipment at the end of the useful life of measures, or as early replacement.

This program also provides support for the implementation of cost effective, high efficiency non-standard equipment through authorized contractor networks and traditional channels. Prescriptive and performance based incentives are intended to buy down the first cost of selected equipment or overall job scopes including but not limited to lighting, motors, variable speed drives, food service, HVAC, custom measures, and other energy efficiency technologies as well as delivery of energy efficiency kits requested by small C/I customers, and master metered multi-family customers.

9.1 Program Updates

There were no changes to this program during PY3.

9.2 Impact Evaluation Gross Savings

This program implements both customer measures and prescriptive measures.

Nearly 100% of the gross reported energy savings for this program were attributable to prescriptive lighting measures, including the CFL giveaway components offered to small commercial customers. The M&V methodology for this program is described below.

Tracking System Review:

ADM worked with WPP and SAIC to set up quarterly reports from the implementer's tracking system – EPMIS. Each quarterly report included information for all rebates in the EPMIS database at the time of the report. This information was used to monitor the 'pulse' of each program as it was implemented and also used to inform quarterly sampling. At the end of each quarter ADM reviewed an updated dataset to define a discrete set of rebates that would be included into the population for that quarter's evaluation. Eligibility was based on an application's status and approval date.

ADM also reviewed each dataset and identified sites at which multiple rebates were incentivized. The additional site documentation was used to confirm invoice counts when multiple rebates covered a single project, an in some cases enabled ADM to reduce the impact on sites with multiple large rebates in separate quarters.

Analytical Desk Review: Prescriptive and Custom

Each sampled site received a thorough desk review before ADM visited the site or calculated ex post verified savings. The desk review included verifying invoices, re-calculating claimed savings using TRM

algorithms and/or ex ante assumptions (i.e. fixture quantities, motor horse-powers, EFLHs, etc), and identifying key parameters to be researched on-site. This review informed ADM's fieldwork by identifying missing data and sites at which ADM needed to install monitoring equipment. The desk review was also used to flag sites that were claimed using prescriptive algorithms, but whose savings needed to be calculated using a custom approach. This is the case for several of 'Motors & Drives' rebates which were flagged late in the fourth quarter.

Many prescriptive applications with rebate amounts under $10,000 were submitted through the "Standard Lighting for Business" program component. This program component targeted smaller rebates and strived to simplify the application process for small commercial applicants who may not have the required time or skill to fill out a detailed inventory of the lighting projects. At the time of program design, the 2009 PA TRM was the prevailing guidance document, and Table 12 of that "deemed" the baseline fixtures based on the new efficient fixtures. ADM evaluated all sampled "Standard Lighting for Business" (SLB) projects by applying Appendix C from the 2010 PA TRM and by determining the baseline fixtures through on-site inspection (post only), site contact interviews, and by baseline fixture descriptions available in rebate project documentation. The SLB projects tended to have high verification rates and much of the variability in the realization rates was attributable to differences between Appendix C of the 2010 TRM and Table 12 of the 2009 TRM. The SLB rebate forms are being phased out in favor of the "Non-Standard Lighting for Business" rebate forms described below.

The great majority (over 80% of all prescriptive lighting savings in the C/I sector) of lighting projects were submitted through the "Non-Standard Lighting for Business" (NSLB) program. The NSLB application process requires the applicant to fill out a version of the Appendix C calculator from the 2010 TRM. As such, these projects generally conformed with TRM algorithms. Inconsistencies were limited to discrepancies in EFLH claims and occasionally, usage of 'cut-sheets' for novel lighting fixtures[24]. The overall realization rates for the prescriptive lighting measures are near unity across all three operating companies, indicating that for the most part, results are reported in accordance to TRM protocols.

For custom projects, desk reviews were performed in order to create an Evaluation, Measurement, & Verification plan for each sampled site. ADM used the project documentation and site contact to determine what monitoring equipment needed to be installed and if baseline monitoring was required. ADM worked closely with SAIC and WPP to identify custom sites at which pre-monitoring would be required by reviewing site documentation for sites early in SAIC's approval process and flagging sites which would only be evaluable with monitored baseline data. ADM reviewed each Custom Incentive application before its approval to ensure its evaluability.

[24] The general guidance used in this impact evaluation is that if one can find a similar fixture in Appendix C with a connected load within 5% of the proposed fixture, then one should defer to Appendix C.

Verification/Data Acquisition (DAQ)

ADM used surveys, on-site verification, and/or data logging in order to address uncertainties identified in the desk review process. ADM determined the requisite level of additional verification by applying the following general rule-set:

Measure Category	Measure Type	Survey	On-Site Verification	Data Logging
Prescriptive	Lighting		x	x*
Prescriptive	Motors & Drives		x	x*
Prescriptive	Other		x	x*
Custom	All		x	x

** As required by the TRM*

In this way ADM ensures that enough information was gathered to make accurate and robust site analyses.

Post DAQ analysis

In order to promote consistency and accuracy, ADM created a Microsoft Excel based calculator for each prescriptive measure rebated in the program that has a stipulated savings algorithm in the Pennsylvania TRM. Each calculator has one spreadsheet that is used to recreate the claimed savings values by entering in values according to the rebate application and site documentation during the desk review. There is a second sheet that is then used to calculate ex post verified savings by updating key parameters according to on-site data collection. In many cases no changes were made between these two sheets, as all key variables were identified correctly through the desk review.[25]

Custom measures were evaluated according to the EM&V plan that was written during the desk review and in accordance with IPMVP. Given the nature of these measures, the custom analyses employed monitored data, cut-sheets, and one-time power measurements to characterize energy use and energy savings. For measures installed on equipment used in industrial processes, ADM also collected annual production data (in addition to any production collected during the monitored time period). This was used to normalize energy savings to production.

Program Sampling

[25] This is particularly true for rebates incentivized through the "Non-Standard Lighting for Business" program and whose connected load reduction was less than 50 kW. These rebates usually included itemized invoices, an itemized list of fixtures and their locations, and fixture cut-sheets. Since the TRM stipulates hours of use by space type for sites whose connected load reduction is less than 50 kW, this documentation proved sufficient much of the time.

ADM evaluated the commercial and industrial programs using stratified ratio estimation. Separate samples were drawn, at the 85% confidence level with 15% precision at the annual evaluation level, for each operating company, program, and quarter. A 'sample point' denotes a particular rebate which was randomly sampled within its population.

At the end of the second, third, and fourth quarter ADM reviewed tracking data to define a discrete list of rebates that became the sample population for that quarter. Once separated into their respective operating companies and programs, this population was then stratified according to measure category (prescriptive vs. custom), common drivers of realization rates or the variability of the realization rates, modes (e.g. "Standard Lighting Rebate" rebates vs. other prescriptive rebates), and the magnitude of rebated savings (used to create 'certainty' strata). ADM used a coefficient of variation (CV) of 0.5 for all qualitative strata that[26], based on the PY2 evaluation, are expected to have homogenous realization rates for sampled projects and a CV of 1.0 for strata that, based on the PY2 evaluation, are expected to have homogenous realization rates for sampled project. In late PY3, many conservation kits that included CFLs were mailed out to small commercial customers. The CFL mailings were placed into three separate strata in ADM's sampling framework. ADM conducted a metering study to establish hours of use for CFLs installed in facilities that fall into the 'other' category.

Table 9-1: Commercial & Industrial Equipment Program - Small Reported Results by Quarter

Reporting Period	Participants	Reported Gross Energy Savings (MWh/yr)	Reported Gross Demand Reduction (MW)	Incentives ($1,000)
PY3 Q1*	60	4,367	0.9	$308
PY3 Q2*	80	4,895	0.9	$225
PY3 Q3	34	6,092	0.8	$358
PY3 Q4	25,867	45,168	15.4	$1,915
PY3 Total**	26,006	59,193	17.7	$2,797
CPITD Total**	26,154	71,478	19.9	$3,285

Note: *Includes results originally reported under Commercial Products Efficiency Program, Commercial HVAC Efficiency Program and Custom Technology Applications Program.
**Due to Plan change mid PY3: PY3 and CPITD totals include adjustment for Governmental projects reported under Commercial HVAC Efficiency Program, Commercial Products Efficiency Program and Custom Technology Applications Program and moved to Governmental & Institutional Program amounting to PYTD (35) participants, (1,329) MWh, (0.308) MW and ($9) incentives. CPITD (60) participants, (2,183) MWh, (0.54) MW and ($18) incentives.

[26] Streetlights are given a CV of 0.4 but the PY2 evaluation proved that the variance is in fact much smaller than that.

Table 9-2: Commercial & Industrial Equipment Program – Small Sampling Strategy for PY3

Stratum Name	Reported Gross Savings	Strata Boundaries	Population Size	Assumed CV	Achieved Sample	Evaluation Activity
CFL0	38,771,040	n/a	18,469	0.6	105	In-Situ+ Survey+Meter
CFL1	0	n/a	0	0.5	0	In-Situ
WPP MF0	1,504,646	n/a	76	0.5	4	Survey
Custom0	77,740	40,000	2	1.0	2	In-Situ
Custom1	451,165	500,000	5	1.0	5	In-Situ
Custom2	0	n/a	0	1.0	0	In-Situ
NSL0	615,474	100,000	28	0.5	1	In-Situ
NSL1	447,721	500,000	3	0.5	1	In-Situ
NSL2	0	n/a	0	0.5	0	In-Situ
PCC0	0	100,000	0	0.5	0	In-Situ
PCC1	0	500,000	0	0.5	0	In-Situ
PCC2	0	n/a	0	0.5	0	In-Situ
PCD0	0	100,000	0	0.5	0	In-Situ
PCD1	0	500,000	0	0.5	0	In-Situ
PCD2	0	n/a	0	0.5	0	In-Situ
PCH0	4,793	100,000	4	0.5	1	In-Situ
PCH1	0	500,000	0	0.5	0	In-Situ
PCH2	0	n/a	0	0.5	0	In-Situ
PCL0	2,519,974	100,000	87	0.5	3	In-Situ
PCL1	6,639,620	500,000	32	0.5	3	In-Situ
PCL2	2,460,197	n/a	3	0.5	1	In-Situ
PCT0	606,486	100,000	10	0.5	1	In-Situ
PCT1	1,713,922	500,000	6	0.5	2	In-Situ
PCT2	3,343,427	n/a	4	0.5	1	In-Situ
Prescriptive0	655	100,000	1	0.5	1	In-Situ
Prescriptive1	0	500,000	0	0.5	0	In-Situ
Prescriptive2	0	n/a	0	0.5	0	In-Situ
Total	**59,156,859**	**4,740,000**	**18,730**	**15**	**131**	**-**

Table 9-3: PY3 Commercial & Industrial Equipment Program - Small Summary of Evaluation Results for Energy

Stratum Name	Reported Gross Energy Savings	Realization Rate	Observed CV	Relative Precision	Verified Gross Energy Savings
CFL0	38,771,040	119%	0.6	9%	46,042,703
CFL1	0	n/a	#N/A	n/a	
WPP MF0	1,504,646	101%	#N/A	n/a	1,514,152
Custom0	77,740	73%	0.4	0%	56,684
Custom1	451,165	73%	0.4	0%	328,966
Custom2	0	n/a	0.4	n/a	
NSL0	615,474	78%	0.4	57%	480,366
NSL1	447,721	93%	0.4	47%	415,805
NSL2	0	n/a	0.4	n/a	
PCC0	0	n/a	0.4	n/a	
PCC1	0	n/a	0.4	n/a	
PCC2	0	n/a	0.4	n/a	
PCD0	0	n/a	0.4	n/a	
PCD1	0	n/a	0.4	n/a	
PCD2	0	n/a	#N/A	n/a	
PCH0	4,793	100%	0.4	50%	4,793
PCH1	0	n/a	#N/A	n/a	
PCH2	0	n/a	#N/A	n/a	
PCL0	2,519,974	96%	0.4	33%	2,413,423
PCL1	6,639,620	102%	0.4	32%	6,781,186
PCL2	2,460,197	103%	0.4	47%	2,544,151
PCT0	606,486	92%	0.4	55%	560,271
PCT1	1,713,922	83%	0.4	33%	1,423,415
PCT2	3,343,427	90%	0.4	50%	3,013,583
Prescriptive0	655	100%	1.6	0%	655
Prescriptive1	0	n/a	1.6	n/a	
Prescriptive2	0	n/a	1.6	n/a	
Total	**59,156,859**	**111%**		**8%**	**65,580,154**

Table 9-4: PY3 Commercial & Industrial Equipment Program Summary - Small of Evaluation Results for Demand

Stratum Name	Reported Gross Demand Savings	Realization Rate	Observed CV	Relative Precision	Verified Gross DemandSavings
CFL0	13,545	64%	0.6	9%	8,602
CFL1	0	n/a	#N/A	n/a	
WPP MF0	65	100%	#N/A	n/a	65
Custom0	169	18%	0.4	0%	31
Custom1	557	18%	0.4	0%	102
Custom2	0	n/a	0.4	n/a	
NSL0	127	122%	0.4	57%	155
NSL1	80	77%	0.4	47%	62
NSL2	0	n/a	0.4	n/a	
PCC0	0	n/a	0.4	n/a	
PCC1	0	n/a	0.4	n/a	
PCC2	0	n/a	0.4	n/a	
PCD0	0	n/a	0.4	n/a	
PCD1	0	n/a	0.4	n/a	
PCD2	0	n/a	#N/A	n/a	
PCH0	3	100%	0.4	50%	3
PCH1	0	n/a	#N/A	n/a	
PCH2	0	n/a	#N/A	n/a	
PCL0	595	95%	0.4	33%	566
PCL1	1,335	102%	0.4	32%	1,368
PCL2	568	96%	0.4	47%	547
PCT0	139	75%	0.4	55%	105
PCT1	258	101%	0.4	33%	260
PCT2	196	114%	0.4	50%	223
Prescriptive0	1	100%	1.6	0%	1
Prescriptive1	0	n/a	1.6	n/a	
Prescriptive2	0	n/a	1.6	n/a	
Total	**17,637**	**69%**		**11%**	**12,089**

9.3 Impact Evaluation Net Savings

Act 129 compliance is based on gross savings, but the Company's Evaluators are presently finalizing a portfolio-level net to gross survey to inform the program planning for Phase II of Act 129. The evaluation of the legacy FirstEnergy companies included net-to-gross research based on Program Year 3 (PY3) participants. Given the mid-year transition of West Penn Power programs to FirstEnergy's model, West Penn Power specific net-to-gross research was not conducted. The evaluation team plans to complete net-to-gross research on West Penn Power program participants starting in February 2013 and based on six months of PY4 participants. These results will be available in time to inform the final plans for Phase II. The Net-to-Gross data acquisition will be based on participant self-report surveys and will follow a similar approach as that used for the FirstEnergy legacy companies.

9.4 Process Evaluation

A process evaluation for the WPP program was not conducted in PY3 due to the transition to the implementation model of the other three operating companies (Met-Ed, Penelec, and Penn Power).

9.5 Financial Reporting

A breakdown of the program finances is presented in Table 9-5.

Table 9-5: Summary of Commercial & Industrial Equipment Program - Small Finances

	IQ ($1,000)	PYTD ($1,000)	CPITD ($1,000)
EDC Incentives to Participants	$1,915	$2,797	$3,285
EDC Incentives to Trade Allies			
Subtotal EDC Incentive Costs	**$1,915**	**$2,797**	**$3,285**
Design & Development		$16	$308
Administration[1]	$7	$203	$861
Management[2]			
Marketing[3]	$227	$376	$444
Technical Assistance	$370	$791	$1,141
Subtotal EDC Implementation Costs	**$605**	**$1,386**	**$2,754**
EDC Evaluation Costs	$18	$153	$388
SWE Audit Costs			
Total EDC Costs[4]	$2,538	$4,336	$6,427
Participant Costs[5]	**$1,302**	**$4,762**	**$5,593**
Total TRC Costs[6]	**$1,926**	**$6,301**	**$8,735**
Total Lifetime Energy Benefits	$9,799	$18,437	$25,589
Total Lifetime Capacity Benefits	$843	$1,326	$2,135
Total TRC Benefits[7]	**N/A**	**$19,762**	**$27,724**
TRC Ratio[8]	**N/A**	**3.14**	**3.17**

NOTES

Per PUC direction, TRC inputs and calculations are required in the Annual Report only and should comply with the 2011 Total Resource Cost Test Order approved July 28, 2011. Please see the "Report Definitions" section of this report for more details.

[1] Includes the administrative CSP (rebate processing), tracking system, and general administration and clerical cost.

[2] Includes EDC program management, CSP program management, general management oversight, and major accounts.

[3] Includes the marketing CSP and marketing costs by program CSPs.

[4] Per the 2011 Total Resource Cost Test Order, the Total EDC Costs refer to EDC incurred expenses only.

[5] Per the 2011 Total Resource Cost Test Order, the net Participant Costs are the costs for the end-use customer.

[6] Total TRC Costs includes EDC Evaluation Costs, Total EDC Implementation Costs and Participant Costs.

[7] Total TRC Benefits equals the sum of Total Lifetime Energy Benefits and Total Lifetime Capacity Benefits. Based upon verified gross kWh and kW savings. Benefits include: avoided supply costs, including the reduction in costs of electric energy, generation, transmission, and distribution capacity, and natural gas valued at marginal cost for periods when there is a load reduction.

[10] TRC Ratio equals Total TRC Benefits divided by Total TRC Costs.

10 Time of Use (TOU) with Critical Peak Pricing (CPP) Rate

The TOU program rates reflect the cost of serving customers during different time periods, but do not change as frequently as hourly. TOU encourages commercial, industrial, government, school, and non-profit customers under 500 kW to lower their demand and energy consumption during on-peak periods by charging a higher price that reflects the higher cost of serving customers, and charging lower prices during off-peak periods that reflects the lower cost of serving customers. TOU also includes critical peak pricing that is designed to address the short-term need to reduce demand at the time of the system peak by charging prices significantly higher than on-peak periods. Critical peak pricing periods will vary in frequency and duration using predefined or notified peak hours, but will balance the need to keep the period as short as possible to effectively allow customers to reduce demand or shift usage to lower cost periods. TOU is voluntary and is only available to customers that are receiving utility-provided default service. TOU relies on a smart meter to measure the customer's demand and energy usage during the various TOU periods.

10.1 Program Updates

This program was not implemented.

10.2 Impact Evaluation Gross Savings

This program was not implemented.

Table 10-1: Time of Use (TOU) with Critical Peak Pricing (CPP) Rate Reported Results by Quarter

Reporting Period	Participants	Reported Gross Energy Savings (MWh/yr)	Reported Gross Demand Reduction (MW)	Incentives ($1,000)
PY3 Q1	0	0	0.0	$0
PY3 Q2	0	0	0.0	$0
PY3 Q3	0	0	0.0	$0
PY3 Q4	0	0	0.0	$0
PY3 Total	0	0	0.0	$0
CPITD Total	0	0	0.0	$0

Table 10-2: Time of Use (TOU) with Critical Peak Pricing (CPP) Rate Sampling Strategy for PY3

Stratum	Strata Boundaries	Population Size	Assumed Coefficient of Variation (C_v) or Proportion in Sample Design	Target Levels of Confidence & Precision	Target Sample Size	Achieved Sample Size	Evaluation Activity
TOU with CPP	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Program Total	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Table 10-3: PY3 Time of Use (TOU) with Critical Peak Pricing (CPP) Summary of Evaluation Results for Energy

Stratum	Reported Gross Energy Savings	Energy Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Energy Savings
TOU with CPP	0	n/a	n/a	n/a	0
Program Total	0				0

Table 10-4: PY3 Time of Use (TOU) with Critical Peak Pricing (CPP) Rate Summary of Evaluation Results for Demand

Stratum	Reported Gross Demand Reduction	Demand Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Demand Reduction
TOU with CPP	0.0	n/a	n/a	n/a	0.0
Program Total	0.0				0.0

10.3 Impact Evaluation Net Savings

This program was not implemented.

10.4 Process Evaluation

This program was not implemented.

10.5 Financial Reporting

A breakdown of the program finances is presented in Table 10-6.

Table 10-5: Summary of Time of Use (TOU) with Critical Peak Pricing (CPP) Rate Finances

	IQ ($1,000)	PYTD ($1,000)	CPITD ($1,000)
EDC Incentives to Participants	$0	$0	$0
EDC Incentives to Trade Allies			
Subtotal EDC Incentive Costs	**$0**	**$0**	**$0**
Design & Development		$3	$6
Administration[1]	$8	$17	$45
Management[2]			
Marketing[3]	$0	$3	$17
Technical Assistance	$2	$6	$28
Subtotal EDC Implementation Costs	**$10**	**$30**	**$96**
EDC Evaluation Costs	$0	$7	$12
SWE Audit Costs			
Total EDC Costs[4]	$10	$37	$108
Participant Costs[5]			
Total TRC Costs[6]			
Total Lifetime Energy Benefits			
Total Lifetime Capacity Benefits			
Total TRC Benefits[7]	**N/A**		
TRC Ratio[8]	**N/A**		

NOTES

Per PUC direction, TRC inputs and calculations are required in the Annual Report only and should comply with the 2011 Total Resource Cost Test Order approved July 28, 2011. Please see the "Report Definitions" section of this report for more details.

[1] Includes the administrative CSP (rebate processing), tracking system, and general administration and clerical cost.

[2] Includes EDC program management, CSP program management, general management oversight, and major accounts.

[3] Includes the marketing CSP and marketing costs by program CSPs.

[4] Per the 2011 Total Resource Cost Test Order, the Total EDC Costs refer to EDC incurred expenses only.

[5] Per the 2011 Total Resource Cost Test Order, the net Participant Costs are the costs for the end-use customer.

[6] Total TRC Costs includes EDC Evaluation Costs, Total EDC Implementation Costs and Participant Costs.

[7] Total TRC Benefits equals the sum of Total Lifetime Energy Benefits and Total Lifetime Capacity Benefits. Based upon verified gross kWh and kW savings. Benefits include: avoided supply costs, including the reduction in costs of electric energy, generation, transmission, and distribution capacity, and natural gas valued at marginal cost for periods when there is a load reduction.

[10] TRC Ratio equals Total TRC Benefits divided by Total TRC Costs.

11 Commercial & Industrial Equipment Program - Large

This program provides prescriptive and performance based incentives which will reduce the first cost of high efficiency equipment thereby encouraging the adoption of high efficient equipment in lieu of standard equipment at the end of the useful life of measures, or as early replacement.

This program also provides support for the implementation of cost effective, high efficiency non-standard equipment through the authorized contractor network and traditional channels. Prescriptive and performance based incentives are intended to buy down the first cost of selected equipment or overall job scopes including but not limited to lighting, variable speed drives, custom measures, and other energy efficiency technologies.

11.1 Program Updates

There were no changes to this program during PY3.

11.2 Impact Evaluation Gross Savings

This program implements both custom measures and prescriptive measures. The great majority of the gross reported energy savings for this program were attributable to prescriptive and performance lighting measures. The M&V methodology for this program is identical to the approach used for the Small C/I equipment program described in section 11.2.

Program Sampling

The sampling methodology for this program is identical to the approach used for the Small C/I equipment program.

Table 11-1: Commercial & Industrial Equipment Program - Large Reported Results by Quarter

Reporting Period	Participants	Reported Gross Energy Savings (MWh/yr)	Reported Gross Demand Reduction (MW)	Incentives ($1,000)
PY3 Q1*	13	6,583	1.4	$678
PY3 Q2*	14	12,543	2.3	$302
PY3 Q3	8	3,356	0.4	$538
PY3 Q4	7	1,262	0.1	$21
PY3 Total**	37	20,064	3.3	$1,494
CPITD Total**	47	24,544	4.2	$1,898

Note: *Includes results originally reported under Custom Applications Program and Commercial & Industrial Drives Program.
**Due to Plan change mid PY3: PY3 and CPITD totals include adjustment for Governmental projects reported under Custom Applications Program and Commercial & Industrial Drives Program and moved to Governmental & Institutional Program amounting to PYTD (5) participants, (3,680) MWh, (0.877) MW and ($45) incentives. CPITD (10) participants, (4,162) MWh, (0.94) MW and ($65) incentives.

Table 11-2: Commercial & Industrial Equipment Program - Large Sampling Strategy for PY3

Stratum Name	Reported Gross Savings	Strata Boundaries	Population Size	Assumed CV	Achieved Sample	Evaluation Activity
CFL0	0	n/a	0	1.0	0	In-Situ+ Survey+Meter
CFL1	0	n/a	0	1.0	0	In-Situ+ Survey+Meter
CFL2	0	n/a	0	1.0	0	In-Situ+ Survey+Meter
Custom0	0	40,000	0	1.0	0	In-Situ
Custom1	0	500,000	0	1.0	0	In-Situ
Custom2	0	n/a	0	1.0	0	In-Situ
NSL0	73,303	100,000	5	0.5	1	In-Situ
NSL1	0	500,000	0	0.5	0	In-Situ
NSL2	811,436	n/a	1	0.5	1	In-Situ
PCC0	4,817,575	500,000	21	0.5	3	In-Situ
PCC1	13,713,878	40,000,000	8	0.5	5	In-Situ
PCC2	0	n/a	0	0.5	0	In-Situ
PCD0	0	100,000	0	0.5	0	In-Situ
PCD1	323,025	500,000	1	0.5	1	In-Situ
PCD2	0	n/a	0	0.5	0	In-Situ
PCH0	0	100,000	0	0.5	0	In-Situ
PCH1	0	500,000	0	0.5	0	In-Situ
PCH2	0	n/a	0	0.5	0	In-Situ
PCL0	0	100,000	0	0.5	0	In-Situ
PCL1	0	500,000	0	0.5	0	In-Situ
PCL2	0	n/a	0	0.5	0	In-Situ
PCT0	0	100,000	0	0.5	0	In-Situ
PCT1	376,772	500,000	1	0.5	0	In-Situ
PCT2	0	n/a	0	0.5	0	In-Situ
Prescriptive0	0	100,000	0	0.5	0	In-Situ
Prescriptive1	0	500,000	0	0.5	0	In-Situ
Prescriptive2	0	n/a	0	0.5	0	In-Situ
Total	**20,115,989**	**44,640,000**	**37**	**17**	**11**	**-**

Table 11-3: PY3 Commercial & Industrial Equipment Program - Large Summary of Evaluation Results for Energy

Stratum Name	Reported Gross Energy Savings	Realization Rate	Observed CV	Relative Precision	Verified Gross Energy Savings
CFL0	0	n/a	0.6	n/a	
CFL1	0	n/a	n/a	n/a	
CFL2	0	n/a	n/a	n/a	
Custom0	0	n/a	0.4	n/a	
Custom1	0	n/a	0.4	n/a	
Custom2	0	n/a	0.4	n/a	
NSL0	73,303	74%	0.4	52%	54,353
NSL1	0	n/a	0.4	n/a	
NSL2	811,436	83%	0.4	0%	673,937
PCC0	4,817,575	145%	0.4	31%	6,968,762
PCC1	13,713,878	95%	0.4	16%	12,994,775
PCC2	0	n/a	0.4	n/a	
PCD0	0	n/a	0.4	n/a	
PCD1	323,025	38%	0.4	0%	121,558
PCD2	0	n/a	n/a	n/a	
PCH0	0	n/a	0.4	n/a	
PCH1	0	n/a	n/a	n/a	
PCH2	0	n/a	n/a	n/a	
PCL0	0	n/a	0.4	n/a	
PCL1	0	n/a	0.4	n/a	
PCL2	0	n/a	0.4	n/a	
PCT0	0	n/a	0.4	n/a	
PCT1	376,772	n/a	0.4	n/a	
PCT2	0	n/a	0.4	n/a	
Prescriptive0	0	n/a	1.6	n/a	
Prescriptive1	0	n/a	1.6	n/a	
Prescriptive2	0	n/a	1.6	n/a	
Total	**20,115,989**	**103%**		**13%**	**20,813,384**

Table 11-4: PY3 Commercial & Industrial Equipment Program - Large Summary of Evaluation Results for Demand

Stratum Name	Reported Gross Demand Savings	Realization Rate	Observed CV	Relative Precision	Verified Gross Demand Savings
CFL0	0	n/a	0.6	n/a	
CFL1	0	n/a	n/a	n/a	
CFL2	0	n/a	n/a	n/a	
Custom0	0	n/a	0.4	n/a	
Custom1	0	n/a	0.4	n/a	
Custom2	0	n/a	0.4	n/a	
NSL0	9	75%	0.4	52%	7
NSL1	0	n/a	0.4	n/a	
NSL2	138	95%	0.4	0%	131
PCC0	788	129%	0.4	31%	1,013
PCC1	2,445	99%	0.4	16%	2,419
PCC2	0	n/a	0.4	n/a	
PCD0	0	n/a	0.4	n/a	
PCD1	38	36%	0.4	0%	14
PCD2	0	n/a	n/a	n/a	
PCH0	0	n/a	0.4	n/a	
PCH1	0	n/a	n/a	n/a	
PCH2	0	n/a	n/a	n/a	
PCL0	0	n/a	0.4	n/a	
PCL1	0	n/a	0.4	n/a	
PCL2	0	n/a	0.4	n/a	
PCT0	0	n/a	0.4	n/a	
PCT1	0	n/a	0.4	n/a	
PCT2	0	n/a	0.4	n/a	
Prescriptive0	0	n/a	1.6	n/a	
Prescriptive1	0	n/a	1.6	n/a	
Prescriptive2	0	n/a	1.6	n/a	
Total	3,418	105%		13%	3,584

11.3 Impact Evaluation Net Savings

Act 129 compliance is based on gross savings, but the Company's Evaluators are presently finalizing a portfolio-level net to gross survey to inform the program planning for Phase II of Act 129. The evaluation of the legacy FirstEnergy companies included net-to-gross research based on Program Year 3 (PY3) participants. Given the mid-year transition of West Penn Power programs to FirstEnergy's model, West Penn Power specific net-to-gross research was not conducted. The evaluation team plans to complete net-to-gross research on West Penn Power program participants starting in February 2013 and based on six months of PY4 participants. These results will be available in time to inform the final plans for Phase II. The Net-to-Gross data acquisition will be based on participant self-report surveys and will follow a similar approach as that used for the FirstEnergy legacy companies.

11.4 Process Evaluation

A process evaluation for the WPP program was not conducted in PY3 due to the transition to the implementation model of the other three operating companies (Met-Ed, Penelec, and Penn Power).

11.5 Financial Reporting

A breakdown of the program finances is presented in Table 11-5.

Table 11-5: Summary of Commercial & Industrial Equipment Program - Large Finances

	IQ ($1,000)	PYTD ($1,000)	CPITD ($1,000)
EDC Incentives to Participants	$21	$1,495	$1,898
EDC Incentives to Trade Allies			
Subtotal EDC Incentive Costs	**$21**	**$1,495**	**$1,898**
Design & Development		$6	$667
Administration[1]	$2	$122	$567
Management[2]			
Marketing[3]	$64	$155	$184
Technical Assistance	$190	$533	$1,258
Subtotal EDC Implementation Costs	**$255**	**$815**	**$2,676**
EDC Evaluation Costs	$9	$49	$88
SWE Audit Costs			
Total EDC Costs[4]	**$285**	**$2,359**	**$4,611**
Participant Costs[5]	**$0**	**$4,066**	**$4,662**
Total TRC Costs[6]	**$264**	**$4,930**	**$7,426**
Total Lifetime Energy Benefits	$644	$10,245	$12,825
Total Lifetime Capacity Benefits	$50	$1,162	$1,471
Total TRC Benefits[7]	**N/A**	**$11,407**	**$14,296**
TRC Ratio[8]	**N/A**	**~~2.33~~ 2.31**	**1.93**

NOTES

Per PUC direction, TRC inputs and calculations are required in the Annual Report only and should comply with the 2011 Total Resource Cost Test Order approved July 28, 2011. Please see the "Report Definitions" section of this report for more details.

[1] Includes the administrative CSP (rebate processing), tracking system, and general administration and clerical cost.

[2] Includes EDC program management, CSP program management, general management oversight, and major accounts.

[3] Includes the marketing CSP and marketing costs by program CSPs.

[4] Per the 2011 Total Resource Cost Test Order, the Total EDC Costs refer to EDC incurred expenses only.

[5] Per the 2011 Total Resource Cost Test Order, the net Participant Costs are the costs for the end-use customer.

[6] Total TRC Costs includes EDC Evaluation Costs, Total EDC Implementation Costs and Participant Costs.

[7] Total TRC Benefits equals the sum of Total Lifetime Energy Benefits and Total Lifetime Capacity Benefits. Based upon verified gross kWh and kW savings. Benefits include: avoided supply costs, including the reduction in costs of electric energy, generation, transmission, and distribution capacity, and natural gas valued at marginal cost for periods when there is a load reduction.

[10] TRC Ratio equals Total TRC Benefits divided by Total TRC Costs.

12 Customer Load Response Program

This program will supply Company assistance by providing load management services by actively educating and providing assistance with the transition to market prices, load shaping, and participation in PJM markets. Contracting with customers for load reduction as well as assisting customers with entry into the real time energy markets will help control the demand during peak hours. A customer who participates in this program will receive incentives based on their actual hourly load reduction from their calculated baseline during events called by the Company for the top 100 hours of load reduction. Customers will have flexibility in selecting how many hours that they can participate with 50 hours being typical.

12.1 Program Updates

There were no program updates to this program in PY3.

12.2 Impact Evaluation Gross Savings

This program was operated between June 1 and September 30 2012, there were no impacts reported for PY3. The gross impact evaluation effort is underway as of this writing, but preliminary results are not yet available.

Table 12-1: Customer Load Response Program Reported Results by Quarter

Reporting Period	Participants	Reported Gross Energy Savings (MWh/yr)	Reported Gross Demand Reduction (MW)	Incentives ($1,000)
PY3 Q1	0	0	0.0	$0
PY3 Q2	0	0	0.0	$0
PY3 Q3	0	0	0.0	$0
PY3 Q4	0	0	0.0	$0
PY3 Total	0	0	0.0	$0
CPITD Total	0	0	0.0	$0

Table 12-2: Customer Load Response Program Sampling Strategy for PY3

Stratum	Strata Boundaries	Population Size	Assumed Coefficient of Variation (C_v) or Proportion in Sample Design	Target Levels of Confidence & Precision	Target Sample Size	Achieved Sample Size	Evaluation Activity
Customer Load Response	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Program Total	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Table 12-3: PY3 Customer Load Response Program Summary of Evaluation Results for Energy

Stratum	Reported Gross Energy Savings	Energy Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Energy Savings
Customer Load Response	0	n/a	n/a	n/a	0
Program Total	0				0

Table 12-4: PY3 Customer Load Response Program Summary of Evaluation Results for Demand

Stratum	Reported Gross Demand Reduction	Demand Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Demand Reduction
Customer Load Response	0.0	n/a	n/a	n/a	0.0
Program Total	0.0				0.0

12.3 Impact Evaluation Net Savings

There were no impacts reported for PY3. The net impact evaluation effort is underway as of this writing, but preliminary results are not yet available.

12.4 Process Evaluation

This program was not implemented in PY3.

12.5 Financial Reporting

A breakdown of the program finances is presented in Table 12-5.

Table 12-5: Summary of Customer Load Response Program Finances

	IQ ($1,000)	PYTD ($1,000)	CPITD ($1,000)
EDC Incentives to Participants	$0	$15	$15
EDC Incentives to Trade Allies			
Subtotal EDC Incentive Costs	**$0**	**$15**	**$15**
Design & Development		$4	$88
Administration[1]	$6	$41	$78
Management[2]			
Marketing[3]	$0	$1	$2
Technical Assistance	$5	$18	$41
Subtotal EDC Implementation Costs	**$11**	**$63**	**$209**
EDC Evaluation Costs	$2	$5	$14
SWE Audit Costs			
Total EDC Costs[4]	$13	$83	$238
Participant Costs[5]			
Total TRC Costs[6]	**$13**	**$68**	**$238**
Total Lifetime Energy Benefits			
Total Lifetime Capacity Benefits			
Total TRC Benefits[7]	**N/A**		
TRC Ratio[8]	**N/A**		

NOTES

Per PUC direction, TRC inputs and calculations are required in the Annual Report only and should comply with the 2011 Total Resource Cost Test Order approved July 28, 2011. Please see the "Report Definitions" section of this report for more details.

[1] Includes the administrative CSP (rebate processing), tracking system, and general administration and clerical cost.

[2] Includes EDC program management, CSP program management, general management oversight, and major accounts.

[3] Includes the marketing CSP and marketing costs by program CSPs.

[4] Per the 2011 Total Resource Cost Test Order, the Total EDC Costs refer to EDC incurred expenses only.

[5] Per the 2011 Total Resource Cost Test Order, the net Participant Costs are the costs for the end-use customer.

[6] Total TRC Costs includes EDC Evaluation Costs, Total EDC Implementation Costs and Participant Costs.

[7] Total TRC Benefits equals the sum of Total Lifetime Energy Benefits and Total Lifetime Capacity Benefits. Based upon verified gross kWh and kW savings. Benefits include: avoided supply costs, including the reduction in costs of electric energy, generation, transmission, and distribution capacity, and natural gas valued at marginal cost for periods when there is a load reduction.

[10] TRC Ratio equals Total TRC Benefits divided by Total TRC Costs.

13 Customer Resources Demand Response Program

This program contracts for load resources which will be initially targeted at existing small and large, commercial and industrial, and governmental/non-profit customers with a demand of at least 300 kW or greater. The program will be expanded to customers less than 300 kW in conjunction with the deployment of smart metering infrastructure that will provide the required metering and communications network for these customers to participate. PJM CSPs may also enroll customers with a demand less that 300 kW where a measurement and verification protocol is approved by the Company in advance of program enrollment.

13.1 Program Updates

There were no program updates to this program in PY3.

13.2 Impact Evaluation Gross Savings

This program was operated between June 1 and September 30 2012, there were no impacts reported for PY3. The gross impact evaluation effort is underway as of this writing, but preliminary results are not yet available.

Table 13-1: Customer Resources Demand Response Program Reported Results by Quarter

Reporting Period	Participants	Reported Gross Energy Savings (MWh/yr)	Reported Gross Demand Reduction (MW)	Incentives ($1,000)
PY3 Q1	0	0	0.0	$0
PY3 Q2	0	0	0.0	$0
PY3 Q3	0	0	0.0	$0
PY3 Q4	0	0	0.0	$0
PY3 Total	0	0	0.0	$0
CPITD Total	0	0	0.0	$0

Table 13-2: Customer Resources Demand Response Program Sampling Strategy for PY3

Stratum	Strata Boundaries	Population Size	Assumed Coefficient of Variation (C_v) or Proportion in Sample Design	Target Levels of Confidence & Precision	Target Sample Size	Achieved Sample Size	Evaluation Activity
Customer Resources Demand Response	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Program Total	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Table 13-3: PY3 Customer Resources Demand Response Program Summary of Evaluation Results for Energy

Stratum	Reported Gross Energy Savings	Energy Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Energy Savings
Customer Resources Demand Response	0	n/a	n/a	n/a	0
Program Total	0				0

Table 13-4: PY3 Customer Resources Demand Response Program Summary of Evaluation Results for Demand

Stratum	Reported Gross Demand Reduction	Demand Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Demand Reduction
Customer Resources Demand Response	0.0	n/a	n/a	n/a	0.0
Program Total	0.0				0.0

13.3 Impact Evaluation Net Savings

There were no impacts reported for PY3. The gross impact evaluation effort is underway as of this writing, but preliminary results are not yet available.

13.4 Process Evaluation

This program was not implemented in PY3.

13.5 Financial Reporting

A breakdown of the program finances is presented in Table 13-5.

Table 13-5: Summary of Customer Resources Demand Response Program Finances

	IQ ($1,000)	PYTD ($1,000)	CPITD ($1,000)
EDC Incentives to Participants	$0	$0	$0
EDC Incentives to Trade Allies			
Subtotal EDC Incentive Costs	**$0**	**$0**	**$0**
Design & Development		$4	$7
Administration[1]	$13	$51	$83
Management[2]			
Marketing[3]	$0	$47	$49
Technical Assistance	$3	$352	$374
Subtotal EDC Implementation Costs	**$17**	**$454**	**$512**
EDC Evaluation Costs	$4	$8	$20
SWE Audit Costs			
Total EDC Costs[4]	$22	$462	$533
Participant Costs[5]			
Total TRC Costs[6]	**$22**	**$462**	**$533**
Total Lifetime Energy Benefits			
Total Lifetime Capacity Benefits			
Total TRC Benefits[7]	**N/A**		
TRC Ratio[8]	**N/A**		

NOTES

Per PUC direction, TRC inputs and calculations are required in the Annual Report only and should comply with the 2011 Total Resource Cost Test Order approved July 28, 2011. Please see the "Report Definitions" section of this report for more details.

[1] Includes the administrative CSP (rebate processing), tracking system, and general administration and clerical cost.

[2] Includes EDC program management, CSP program management, general management oversight, and major accounts.

[3] Includes the marketing CSP and marketing costs by program CSPs.

[4] Per the 2011 Total Resource Cost Test Order, the Total EDC Costs refer to EDC incurred expenses only.

[5] Per the 2011 Total Resource Cost Test Order, the net Participant Costs are the costs for the end-use customer.

[6] Total TRC Costs includes EDC Evaluation Costs, Total EDC Implementation Costs and Participant Costs.

[7] Total TRC Benefits equals the sum of Total Lifetime Energy Benefits and Total Lifetime Capacity Benefits. Based upon verified gross kWh and kW savings. Benefits include: avoided supply costs, including the reduction in costs of electric energy, generation, transmission, and distribution capacity, and natural gas valued at marginal cost for periods when there is a load reduction.

[10] TRC Ratio equals Total TRC Benefits divided by Total TRC Costs.

14 Distributed Generation Program

Under this program, customers will contract with a Distributed Generation (DG) Manager to provide the customer with operation and maintenance services on the customer's generator. The DG Manager will dispatch the generator up to 100 hours in response to curtailment event notices issued by the Company during the targeted hours of the Company's 100 hours of highest demand. A customer who participates in this program will be provided an incentive on a $/MWh basis for each hour that their generator is dispatched to target West Penn Power's hours of highest demand.

In the Company's service territory, there is approximately 70 MW of existing standby generation larger than 300 kW. These sources are primarily in hospitals, banking, data center and high tech manufacturing facilities, and the generators range in size up to 2000 kW.

14.1 Program Updates

This program was not implemented.

14.2 Impact Evaluation Gross Savings

This program was not implemented.

Table 14-1: Distributed Generation Program Reported Results by Quarter

Reporting Period	Participants	Reported Gross Energy Savings (MWh/yr)	Reported Gross Demand Reduction (MW)	Incentives ($1,000)
PY3 Q1	0	0	0.0	$0
PY3 Q2	0	0	0.0	$0
PY3 Q3	0	0	0.0	$0
PY3 Q4	0	0	0.0	$0
PY3 Total	0	0	0.0	$0
CPITD Total	0	0	0.0	$0

Table 14-2: Distributed Generation Program Sampling Strategy for PY3

Stratum	Strata Boundaries	Population Size	Assumed Coefficient of Variation (C_v) or Proportion in Sample Design	Target Levels of Confidence & Precision	Target Sample Size	Achieved Sample Size	Evaluation Activity
Distributed Generation	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Program Total	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Table 14-3: PY3 Distributed Generation Program Summary of Evaluation Results for Energy

Stratum	Reported Gross Energy Savings	Energy Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Energy Savings
Distributed Generation	0	n/a	n/a	n/a	0
Program Total	0				0

Table 14-4: PY3 Distributed Generation Program Summary of Evaluation Results for Demand

Stratum	Reported Gross Demand Reduction	Demand Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Demand Reduction
Distributed Generation	0.0	n/a	n/a	n/a	0.0
Program Total	0.0				0.0

14.3 Impact Evaluation Net Savings

This program was not implemented.

14.4 Process Evaluation

This program was not implemented.

14.5 Financial Reporting

A breakdown of the program finances is presented in Table 14-5.

Table 14-5: Summary of Distributed Generation Program Finances

	IQ ($1,000)	PYTD ($1,000)	CPITD ($1,000)
EDC Incentives to Participants	$0	$0	$0
EDC Incentives to Trade Allies			
Subtotal EDC Incentive Costs	**$0**	**$0**	**$0**
Design & Development		$3	$5
Administration[1]	$2	$6	$39
Management[2]			
Marketing[3]	$2	$2	$3
Technical Assistance	$2	$5	$27
Subtotal EDC Implementation Costs	**$5**	**$17**	**$75**
EDC Evaluation Costs	$1	$1	$1
SWE Audit Costs			
Total EDC Costs[4]	$6	$17	$76
Participant Costs[5]			
Total TRC Costs[6]	**$6**	**$17**	**$76**
Total Lifetime Energy Benefits			
Total Lifetime Capacity Benefits			
Total TRC Benefits[7]	**N/A**		
TRC Ratio[8]	**N/A**		

NOTES

Per PUC direction, TRC inputs and calculations are required in the Annual Report only and should comply with the 2011 Total Resource Cost Test Order approved July 28, 2011. Please see the "Report Definitions" section of this report for more details.

[1] Includes the administrative CSP (rebate processing), tracking system, and general administration and clerical cost.

[2] Includes EDC program management, CSP program management, general management oversight, and major accounts.

[3] Includes the marketing CSP and marketing costs by program CSPs.

[4] Per the 2011 Total Resource Cost Test Order, the Total EDC Costs refer to EDC incurred expenses only.

[5] Per the 2011 Total Resource Cost Test Order, the net Participant Costs are the costs for the end-use customer.

[6] Total TRC Costs includes EDC Evaluation Costs, Total EDC Implementation Costs and Participant Costs.

[7] Total TRC Benefits equals the sum of Total Lifetime Energy Benefits and Total Lifetime Capacity Benefits. Based upon verified gross kWh and kW savings. Benefits include: avoided supply costs, including the reduction in costs of electric energy, generation, transmission, and distribution capacity, and natural gas valued at marginal cost for periods when there is a load reduction.

[10] TRC Ratio equals Total TRC Benefits divided by Total TRC Costs.

15 Conservation Voltage Reduction (CVR) Program

The CVR Program will target select distribution circuits where voltage reduction can be achieved while maintaining voltage within regulatory requirements.

The CVR Program incorporates voltage regulation techniques on select distribution circuits that result in lower service voltage levels which causes a non transparent reduction of energy consumption and demand by customers. The Company has reviewed its distribution system to identify circuits where the CVR Program could be implemented with limited to no circuit upgrades and within regulatory requirements. The voltage set points for select Company distribution substations with automatic voltage controls (AVCs) and load tap changers (LTCs) will be recalibrated to deliver a 1.5% lower voltage. The voltage will be monitored to ensure that voltage levels do not drop below regulatory requirements.

15.1 Program Updates

This program was not implemented in PY3

15.2 Impact Evaluation Gross Savings

This program was not implemented in PY3.

Table 15-1: Conservation Voltage Reduction (CVR) Program Reported Results by Quarter

Reporting Period	Participants	Reported Gross Energy Savings (MWh/yr)	Reported Gross Demand Reduction (MW)	Incentives ($1,000)
PY3 Q1	0	0	0.0	$0
PY3 Q2	0	0	0.0	$0
PY3 Q3	0	0	0.0	$0
PY3 Q4	0	0	0.0	$0
PY3 Total	0	0	0.0	$0
CPITD Total	0	0	0.0	$0

Table 15-2: Conservation Voltage Reduction (CVR) Program Sampling Strategy for PY3

Stratum	Strata Boundaries	Population Size	Assumed Coefficient of Variation (C_v) or Proportion in Sample Design	Target Levels of Confidence & Precision	Target Sample Size	Achieved Sample Size	Evaluation Activity
Conservation Voltage Reduction	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Program Total	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Table 15-3: PY3 Conservation Voltage Reduction (CVR) Program Summary of Evaluation Results for Energy

Stratum	Reported Gross Energy Savings	Energy Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Energy Savings
Conservation Voltage Reduction	0	n/a	n/a	n/a	0
Program Total	0				0

Table 15-4: PY3 Conservation Voltage Reduction (CVR) Program Summary of Evaluation Results for Demand

Stratum	Reported Gross Demand Reduction	Demand Realization Rate	Observed Coefficient of Variation (C_v) or Proportion	Relative Precision	Verified Gross Demand Reduction
Conservation Voltage Reduction	0.0	n/a	n/a	n/a	0.0
Program Total	0.0				0.0

15.3 Impact Evaluation Net Savings

This program was not implemented in PY3.

15.4 Process Evaluation

This program was not implemented in PY3.

15.5 Financial Reporting

A breakdown of the program finances is presented in Table 15-5.

Table 15-5: Summary of Conservation Voltage Reduction (CVR) Program Finances

	IQ ($1,000)	PYTD ($1,000)	CPITD ($1,000)
EDC Incentives to Participants	$0	$0	$0
EDC Incentives to Trade Allies			
Subtotal EDC Incentive Costs	**$0**	**$0**	**$0**
Design & Development	$0	$0	$0
Administration[1]	$89	$91	$91
Management[2]			
Marketing[3]	$0	$0	$0
Technical Assistance	$4	$5	$5
Subtotal EDC Implementation Costs	**$93**	**$96**	**$96**
EDC Evaluation Costs	$2	$2	$2
SWE Audit Costs			
Total EDC Costs[4]	$95	$99	$99
Participant Costs[5]			
Total TRC Costs[6]	**$95**	**$99**	**$99**
Total Lifetime Energy Benefits			
Total Lifetime Capacity Benefits			
Total TRC Benefits[7]	**N/A**		
TRC Ratio[8]	**N/A**		

NOTES

Per PUC direction, TRC inputs and calculations are required in the Annual Report only and should comply with the 2011 Total Resource Cost Test Order approved July 28, 2011. Please see the "Report Definitions" section of this report for more details.

[1] Includes the administrative CSP (rebate processing), tracking system, and general administration and clerical cost.

[2] Includes EDC program management, CSP program management, general management oversight, and major accounts.

[3] Includes the marketing CSP and marketing costs by program CSPs.

[4] Per the 2011 Total Resource Cost Test Order, the Total EDC Costs refer to EDC incurred expenses only.

[5] Per the 2011 Total Resource Cost Test Order, the net Participant Costs are the costs for the end-use customer.

[6] Total TRC Costs includes EDC Evaluation Costs, Total EDC Implementation Costs and Participant Costs.

[7] Total TRC Benefits equals the sum of Total Lifetime Energy Benefits and Total Lifetime Capacity Benefits. Based upon verified gross kWh and kW savings. Benefits include: avoided supply costs, including the reduction in costs of electric energy, generation, transmission, and distribution capacity, and natural gas valued at marginal cost for periods when there is a load reduction.

[10] TRC Ratio equals Total TRC Benefits divided by Total TRC Costs.

16 Governmental and Institutional Program

This program, in general prescriptive and performance based incentives will reduce the first cost of high efficiency equipment thereby encouraging the adoption of high efficient equipment in lieu of standard equipment at the end of the useful life of measures, or as early replacement.

The program also provides support for:

1. The implementation of cost effective, high efficiency non-standard equipment through the authorized contractor network and traditional channels. Prescriptive and performance based incentives are intended to buy down the first cost of selected equipment or overall job scopes including but not limited to lighting, variable speed drives, custom measures, and other energy efficiency technologies.

2. The implementation of cost effective, high efficiency standard and non-standard measures through a CSP for local, state and federal buildings, as well as for institutional customers. For federal facilities that qualify, costs for the implementation are covered under the Federal Energy Management Program; for others, rebates are intended to buy down selected equipment or overall job scopes.

The Street Lighting measure is offered to municipalities regardless of ownership of the street lights. This segment of the program will seek to convert street lights to high pressure sodium. The company will pursue an LED street light demonstration project as part of this component to test this emerging technology.

The Traffic Signal measure is another program targeted at local governments. This component of the program will seek to convert vehicular signals and pedestrian/cycling signals to LED technology.

The Lighting measures component of this program will seek to convert inefficient lighting technology with energy efficient lighting technologies. The Implementation Provider and/or Program Manager will provide diagnostic assistance, technical support and rebates necessary for Federal, State, Local, Institutional and Non-Profit to install high-efficiency measure.

16.1 Program Updates

There were no changes to this program during PY3.

16.2 Impact Evaluation Gross Savings

The impact evaluation effort is identical to the 'Small Commercial/Industrial' program's effort.

Table 16-1: Governmental and Institutional Program Reported Results by Quarter

Reporting Period	Participants	Reported Gross Energy Savings (MWh/yr)	Reported Gross Demand Reduction (MW)	Incentives ($1,000)
PY3 Q1	54	1,937	0.6	$210
PY3 Q2	55	2,206	0.6	$192
PY3 Q3	44	3,344	0.8	$5
PY3 Q4	36	56,968	7.1	$320
PY3 Total*	229	69,464	9.7	$781
CPITD Total*	1,017	84,439	14.4	$1,218

Note: *Due to Plan change mid PY3: PY3 and CPITD totals include adjustment for Governmental projects reported under Commercial HVAC Efficiency Program, Commercial Energy Efficiency Program, Custom Technology Applications Program, Custom Applications Program, Commercial & Industrial Drives Program and moved to Governmental & Institutional Program amounting to PYTD 40 participants, 5,009 MWh, 1.185 MW and ($54) incentives. CPITD 70 participants, 6,344 MWh, 1.48 MW and $83 incentives.

Table 16-2: Governmental and Institutional Program Sampling Strategy for PY3

Stratum Name	Reported Gross Savings	Strata Boundaries	Population Size	Assumed CV	Achieved Sample	Evaluation Activity
CFL0	0	n/a	0	1.0	0	In-Situ+ Survey+Meter
CFL1	0	n/a	0	1.0	0	In-Situ+ Survey+Meter
CFL2	0	n/a	0	1.0	0	In-Situ+ Survey+Meter
Custom0	0	40,000	0	1.0	0	In-Situ
Custom1	2,126,212	1,100,000	3	1.0	2	In-Situ
Custom2	49,864,000	n/a	1	1.0	1	In-Situ
NSL0	508,007	100,000	19	0.5	2	In-Situ
NSL1	795,331	400,000	4	0.5	1	In-Situ
NSL2	2,832,928	n/a	1	0.5	1	In-Situ
PCC0	0	100,000	0	0.5	0	In-Situ
PCC1	0	500,000	0	0.5	0	In-Situ
PCC2	4,292,648	n/a	5	0.5	1	In-Situ
PCD0	252,991	300,000	1	0.5	1	In-Situ
PCD1	0	1,000,000	0	0.5	0	In-Situ
PCD2	0	n/a	0	0.5	0	In-Situ
PCH0	0	100,000	0	0.5	0	In-Situ
PCH1	0	500,000	0	0.5	0	In-Situ
PCH2	0	n/a	0	0.5	0	In-Situ
PCL0	3,969,660	100,000	149	0.5	4	In-Situ
PCL1	2,847,600	700,000	11	0.5	1	In-Situ
PCL2	0	n/a	0	0.5	0	In-Situ
PCT0	1,815,794	600,000	13	0.5	1	In-Situ
PCT1	0	1,000,000	0	0.5	0	In-Situ
PCT2	0	n/a	0	0.5	0	In-Situ
Prescriptive0	0	100,000	0	0.5	0	In-Situ
Prescriptive1	0	500,000	0	0.5	0	In-Situ
Prescriptive2	0	n/a	0	0.5	0	In-Situ
Total	69,305,171	7,140,000	207	17	15	-

Table 16-3: PY3 Governmental and Institutional Program Summary of Evaluation Results for Energy

Stratum Name	Reported Gross Energy Savings	Realization Rate	Observed CV	Relative Precision	Verified Gross Energy Savings
CFL0	0	n/a	0.6	n/a	
CFL1	0	n/a	n/a	n/a	
CFL2	0	n/a	n/a	n/a	
Custom0	0	n/a	0.4	n/a	
Custom1	2,126,212	128%	0.4	24%	2,721,856
Custom2	49,864,000	105%	0.4	0%	52,156,518
NSL0	508,007	124%	0.4	39%	628,592
NSL1	795,331	100%	0.4	50%	795,337
NSL2	2,832,928	82%	0.4	0%	2,334,499
NSL3	0	n/a	0.4	n/a	
NSL4	0	n/a	0.4	n/a	
NSL5	4,292,648	91%	0.4	52%	3,924,024
NSL6	252,991	92%	0.4	0%	233,801
NSL7	0	n/a	0.4	n/a	
NSL8	0	n/a	n/a	n/a	
NSL9	0	n/a	0.4	n/a	
NSL10	0	n/a	n/a	n/a	
NSL11	0	n/a	n/a	n/a	
NSL12	3,969,660	63%	0.4	28%	2,514,079
NSL13	2,847,600	99%	0.4	55%	2,821,244
PCL2	0	n/a	0.4	n/a	
PCT0	1,815,794	111%	0.4	55%	2,016,488
PCT1	0	n/a	0.4	n/a	
PCT2	0	n/a	0.4	n/a	
Prescriptive0	0	n/a	1.6	n/a	
Prescriptive1	0	n/a	1.6	n/a	
Prescriptive2	0	n/a	1.6	n/a	
Total	**69,305,171**	**101%**		**4%**	**70,146,438**

Table 16-4: PY3 Governmental and Institutional Program Summary of Evaluation Results for Demand

Stratum Name	Reported Gross Demand Savings	Realization Rate	Observed CV	Relative Precision	Verified Gross Demand Savings
CFL0	0	n/a	0.6	n/a	
CFL1	0	n/a	#N/A	n/a	
CFL2	0	n/a	#N/A	n/a	
Custom0	0	n/a	0.4	n/a	
Custom1	374	82%	0.4	24%	307
Custom2	5,936	107%	0.4	0%	6,350
NSL0	74	101%	0.4	39%	75
NSL1	112	n/a	0.4	50%	
NSL2	370	94%	0.4	0%	348
NSL3	0	n/a	0.4	n/a	
NSL4	0	n/a	0.4	n/a	
NSL5	1,065	95%	0.4	52%	1,009
NSL6	5	188%	0.4	0%	9
NSL7	0	n/a	0.4	n/a	
NSL8	0	n/a	#N/A	n/a	
NSL9	0	n/a	0.4	n/a	
NSL10	0	n/a	#N/A	n/a	
NSL11	0	n/a	#N/A	n/a	
NSL12	1,094	84%	0.4	28%	915
NSL13	691	99%	0.4	55%	685
PCL2	0	n/a	0.4	n/a	
PCT0	451	0%	0.4	55%	0
PCT1	0	n/a	0.4	n/a	
PCT2	0	n/a	0.4	n/a	
Prescriptive0	0	n/a	1.6	n/a	
Prescriptive1	0	n/a	1.6	n/a	
Prescriptive2	0	n/a	1.6	n/a	
Total	**10,170**	**95%**		**8%**	**9,698**

16.3 Impact Evaluation Net Savings

Act 129 compliance is based on gross savings, but the Company's Evaluators are presently finalizing a portfolio-level net to gross survey to inform the program planning for Phase II of Act 129. The evaluation of the legacy FirstEnergy companies included net-to-gross research based on Program Year 3 (PY3) participants. Given the mid-year transition of West Penn Power programs to FirstEnergy's model, West Penn Power specific net-to-gross research was not conducted. The evaluation team plans to complete net-to-gross research on West Penn Power program participants starting in February 2013 and based on six months of PY4 participants. These results will be available in time to inform the final plans for Phase II. The Net-to-Gross data acquisition will be based on participant self-report surveys and will follow a similar approach as that used for the FirstEnergy legacy companies.

16.4 Process Evaluation

A process evaluation for the WPP program was not conducted in PY3 due to the transition to the implementation model of the other three operating companies (Met-Ed, Penelec, and Penn Power).

16.5 Financial Reporting

A breakdown of the program finances is presented in Table 16-5.

Table 16-5: Summary of Governmental and Institutional Program Finances

Category	Quarter 4 ($000)	PYTD ($000)	CPITD ($000)
EDC Incentives to Participants	$320	$782	$1,218
EDC Incentives to Trade Allies			
Subtotal EDC Incentive Costs	**$320**	**$782**	**$1,218**
Design & Development		$5	$111
Administration	$(16)	$73	$373
Management[2]			
Marketing	$61	$134	$152
Technical Assistance[1]	$79	$208	$328
Subtotal EDC Implementation Costs	**$124**	**$421**	**$963**
EDC Evaluation Costs	**$7**	**$71**	**$243**
SWE Audit Costs			
Total EDC Costs[3]	**$452**	**$1,274**	**$2,425**
Participant Costs[4]	**$119**	**$20,053**	**$20,732**
Total TRC Costs	**$250**	**$20,545**	**$21,938**
Total Lifetime Energy Benefits	$33,020	$39,406	$43,513
Total Lifetime Capacity Benefits	$2,205	$3,092	$3,806
Total TRC Benefits	**N/A**	**$42,497**	**$47,319**
TRC Ratio	**N/A**	**2.07**	**2.16**
NOTES:			

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[1] Includes the administrative CSP (rebate processing), tracking system, and general administration and clerical cost.

[2] Includes EDC program management, CSP program management, general management oversight, and major accounts.

[3] Includes the marketing CSP and marketing costs by program CSPs.

[4] Per the 2011 Total Resource Cost Test Order, the Total EDC Costs refer to EDC incurred expenses only.

[5] Per the 2011 Total Resource Cost Test Order, the net Participant Costs are the costs for the end-use customer.

[6] Total TRC Costs includes EDC Evaluation Costs, EDC Implementation Costs and Participant Costs.

[7] Total TRC Benefits equals the sum of Total Lifetime Energy Benefits and Total Lifetime Capacity Benefits. Based upon verified gross kWh and kW savings. Benefits include: avoided supply costs, including the reduction in costs of electric energy, generation, transmission, and distribution capacity, and natural gas valued at marginal cost for periods when there is a load reduction.

[10] TRC Ratio equals Total TRC Benefits divided by Total TRC Costs.