

Quarterly Report to the Pennsylvania Public Utility Commission and Act 129 Statewide Evaluator

**For the period
December 1, 2011 to February 29, 2012
Program Year 3**

For Act 129 of 2008
Energy Efficiency and Conservation Program
of West Penn Power Company

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Abbreviations (see Glossary for definitions)

CPITD	Cumulative Program/Portfolio Inception to Date
CSP	Conservation Service Provider
CVR	Conservation Voltage Reduction
EDC	Electric Distribution Company
EE&C	Energy Efficiency and Conservation
EM&V	Evaluation Measurement and Verification
FE	FirstEnergy Corp.
IQ	Incremental Quarter
kW	Kilowatt
kWh	Kilowatt-hour
LDDA	Local Development District Associations
M&V	Measurement and Verification
MW	Megawatt
MWh	Megawatt-hour
NTG	Net-to-Gross
PY	Program Year
PYTD	Program/Portfolio Year to Date
SWE	Statewide Evaluator
TRC	Total Resource Cost
TRM	Technical Reference Manual
TWG	Technical Working Group
WPP	West Penn Power

1 Overview of Portfolio

Act 129, signed October 15th, 2008, mandated energy savings and demand reduction goals for the largest electric distribution companies (EDC) in Pennsylvania. Pursuant to their goals, energy efficiency and conservation (EE&C) plans were submitted by each EDC and approved by the Pennsylvania Public Utility Commission (PUC).

In accordance with the Secretarial Letter issued on May 25, 2011¹, and the Commission directive requiring EDC's to file quarterly reports for the first three quarters of each reporting year, West Penn Power respectively submits this quarterly report documenting the progress and effectiveness of the EE&C accomplishments for the West Penn Power Company (WPP) or (Company) through the end of Program Year 3, Quarter 3.

Compliance goal progress as of the end of the reporting period²:

Cumulative Portfolio Energy Impacts

- The CPITD reported gross energy savings is 270,024 MWh, of the 628,160 MWh May 31st, 2013 energy savings compliance target.
- The CPITD preliminary verified energy savings is 247,788 MWh³.
- Achieved 43% of the 628,160 MWh May 31, 2013 energy savings compliance target on a gross basis, and 39% on a preliminary verified basis.

Portfolio Demand Reduction⁴

- The CPITD reported gross demand reduction is 31.4 MW.
- The CPITD preliminary verified demand reduction is 28.4 MW.
- Achieved 20% of the 157.3 MW May 31, 2013 demand reduction compliance target.

Low Income Sector

- There are 87,326 measures offered to the low-income sector, comprising 3% of the total measures offered.
- The CPITD reported gross energy savings for low-income sector programs is 13,672 MWh.
- The CPITD preliminary verified energy savings for low-income sector programs is 11,501 MWh.

Government and Non-Profit Sector

- The CPITD reported gross energy savings for government and non-profit sector programs is 27,471 MWh.

¹ *Energy Efficiency and Conservation Program*, Docket No. M-2008-2069887, Secretarial Letter (May 25, 2011).

See Docket No. M-2008-2069887

² Percentage of compliance target achieved calculated using verified Cumulative Program/Portfolio Inception to Date values (or Preliminary verified value, if not available) divided by compliance target value.

³ The preliminary verified impacts are the sum of verified impacts for PY1 and PY2 and preliminary verified impacts for PY3. As historical realization rates are near 100% for most programs, preliminary realization rates for PY3 are nominally set to 100% until M&V work results in meaningful adjustments.

⁴ Demand reduction to include both the demand savings from the installation of energy efficiency measures and the demand reduction associated with demand response programs.

- The CPITD preliminary verified energy savings for government and non-profit sector programs is 24,621 MWh.
- Achieved 42.9% of the 63,997 MWh May 31, 2013 energy savings compliance target.

Program Year portfolio highlights as of the end of the reporting period:

- The PYTD reported gross energy savings is 173,858 MWh.
- The PYTD preliminary verified energy savings is 173,858 MWh.
- The PYTD reported gross demand reduction is 17.1 MW.
- The PYTD preliminary verified demand reduction 17.1 MW.
- The PYTD reported participation is 432,720.⁵

Other Observations and Risks That May Affect Portfolio Success

As initially reported in Table A of the final PY2 Annual report filed in November of 2011, the transactions that will affect May 31, 2011 compliance as a result of customer reporting lag continue to be diligently pursued by the Company.

Based upon knowledge gained during the first two years of implementation and the best practices of its FirstEnergy affiliated companies, WPP filed a revised plan on August 9, 2011⁶. The Commission issued an interim order on October 28, 2011. Several items included in the revised plan were approved while two issues involving (i) the Conservation Voltage Reduction (CVR) program and (ii) several administrative issues were referred to an Administrative Law Judge (ALJ) for further action. The parties actively involved in the remaining issues reached a settlement agreement which was the subject of a joint petition for settlement filed on January 6, 2012. WPP is awaiting approval of the revised plan in order to implement the changes set forth in the plan. The delay in issuing an order, or providing guidance as to whether WPP should proceed, is jeopardizing not only the Company's ability to meet statutory energy efficiency requirements, but because CVR is one of the changes for which WPP is awaiting approval, it is also negatively affecting the Company's ability to meet 2013 peak demand reduction requirements, which more than likely must be achieved during the summer of 2012.

The Company is in the process of implementing the approved components of the revised plan which include modifications to create consistency between FirstEnergy PA EDCs both for program design and outsourced implementation. This report incorporates the program design changes and for purposes of this and all subsequent reports, savings and financial data are being combined retroactively. Design changes are noted as such, as footnotes on the report tables.

One factor specific to WPP that may also affect its ability to meet energy efficiency benchmarks is the 2% spending cap imposed by Act 129⁷. This spending cap, combined with the fact that WPP had lower revenues in 2006, resulted in WPP having the smallest compliance budget among any of the Pennsylvania EDCs.

⁵ CFL participants comprise 77,954 of the listed participant numbers. CFL participants are defined by the number of CFL packages purchased through WPP's Compact Fluorescent Lighting (CFL) Rewards Program.

⁶ See Docket No. M-2009-2093218

⁷ 66 Pa. C.S. § 2806.1(gB)(II).

Further, WPP has the lowest electric rates in the state, which created several obstacles unique to WPP. Lower rates generally provide less incentive for customers to conserve energy. Therefore, WPP customers do not have the same incentives to participate in the programs as did customers of other Pennsylvania EDCs with higher rates.

Given the current economic conditions and their impact on government and institutional budgets, achieving 10% of Act 129 target savings from Federal/State/local/municipal governments, school districts, institutions of higher education, and nonprofit entities may prove challenging.

Furthermore, the Company continues to have concerns about the ability to achieve the 4½ percent demand reduction target based on the magnitude of the MW, and (working through CSPs) its ability to enroll enough customers willing to curtail load for approximately 20 days specific to the top 100 hours.

Finally, as the environment continues to be dynamic, there is a clear need for implementation flexibility and prompt approval of plan changes to ensure achievement of savings. Prompt approval minimizes the potential of having funds that could be applied to successful programs stranded on unsuccessful programs.

Notwithstanding these difficulties, the Company is diligently working with its implementation team and implementation and evaluation CSP's 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 Portfolio Impacts

A summary of the portfolio reported impacts is presented in Table 1-1.

Table 1-1: EDC Reported Portfolio Impacts through the Third Quarter, Program Year 3

Impact Type	Total Energy Savings (MWh)	Total Demand Reduction (MW)
Reported Gross Impact: Incremental Quarterly	31,438	3.7
Reported Gross Impact: Program Year to Date	173,858	17.1
Reported Gross Impact: Cumulative Portfolio Inception to Date	270,024	31.4
Unverified Ex Post Savings		
Estimated Impact: Projects in Progress	7,292	1.2
Estimated Impact: PYTD Total Committed	181,150	18.3
Preliminary PYTD Verified Impact ^[a]	173,858	17.1
Preliminary PYTD Net Impact ^[b]	173,858	17.1
NOTES:		
[a] Portfolio Verified Impact calculated by aggregating Program PYTD Verified Impacts. Program PYTD Verified Impacts are calculated by multiplying Program PYTD Reported Gross Impacts by program realization rates.		
[b] Portfolio Net Impact calculated by aggregating Program Net Impacts. Program Net Impacts are calculated by multiplying Program PYTD Verified Impacts by program Net-to-Gross ratios.		

A summary of total evaluation adjusted impacts for the portfolio is presented in Table 1-2.⁸

Table 1-2: Verified Preliminary Portfolio Total Evaluation Adjusted Impacts through the End of the Third Quarter, Program Year 3

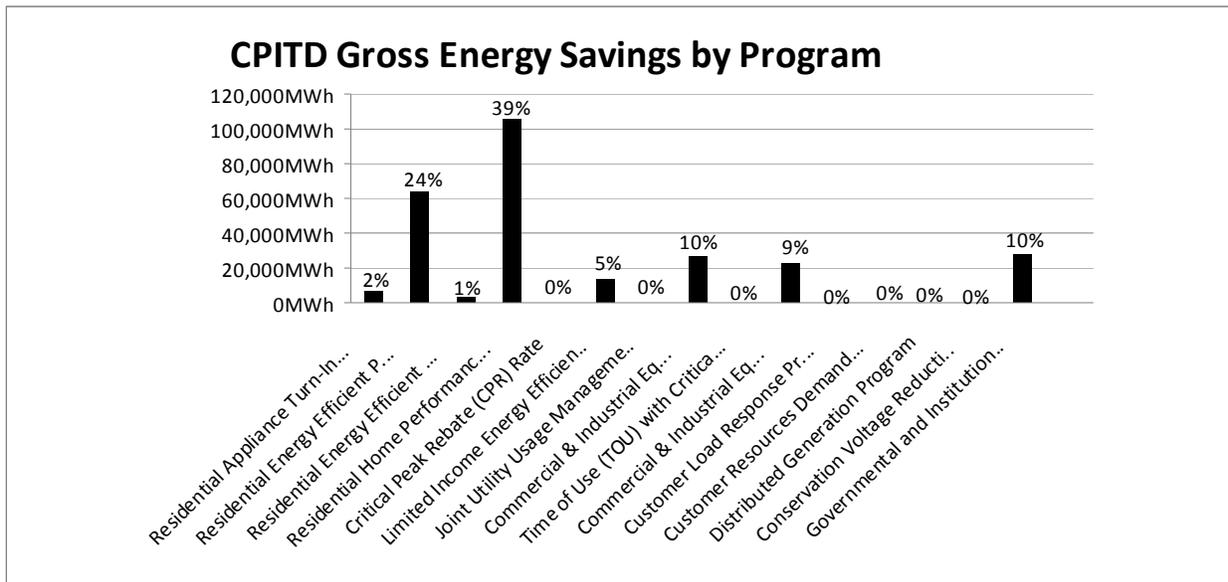
TRC Category	IQ ^[a]	PYTD ^[b]	CPITD
TRC Benefits (\$)	N/A	N/A	N/A
TRC Costs (\$)	N/A	N/A	N/A
TRC Benefit-Cost Ratio			N/A
NOTES:			
[a] Based on reported gross savings.			
[b] Based on reported gross savings.			

⁸ Consistent with prior guidance from PUC Staff, this Report will not include information related to TRC Benefit-to-Cost Ratios.

1.2 Summary of Energy Impacts by Program

A summary of the reported energy savings by program is presented in Figure 1-1.

Figure 1-1: CPITD Reported Gross Energy Savings by Program through the Third Quarter, Program Year 3



A summary of energy impacts by program through the Third Quarter, Program Year 3 is presented in Table 1-3 and Table 1-4.

Table 1-3: EDC Reported Participation and Gross Energy Savings by Program through the Third Quarter, Program Year 3

Program	Participants			Reported Gross Impact (MWh)		
	IQ	PYTD	CPITD	IQ	PYTD	CPITD
Residential Appliance Turn-In Program (Note 2)	928	2,113	4,381	1,631	3,309	6,482
Residential Energy Efficient Products Program (Note 3)	18,365	101,201	300,809	4,723	23,164	64,251
Residential Energy Efficient HVAC Equipment Program (Note 4)	316	1,241	3,224	377	1,027	3,129
Residential Home Performance Program (Note 5)	31,723	303,978	340,781	9,732	94,192	105,427
Critical Peak Rebate (CPR) Rate		19,507	19,507			
Limited Income Energy Efficiency Program (LIEEP) (Note 6)	259	4,224	9,848	2,168	6,766	13,513
Joint Utility Usage Management Program	31	94	214	15	76	159
Commercial & Industrial Equipment Program - Small (Note 7)	34	139	287	6,092	14,025	26,310
Time of Use (TOU) with Critical Peak Pricing (CPP) Rate						
Commercial & Industrial Equipment Program - Large (Note 8)	8	30	40	3,356	18,803	23,283
Customer Load Response Program						
Customer Resources Demand Response Program						
Distributed Generation Program						
Conservation Voltage Reduction (CVR) Program						
Governmental and Institutional Program (Note 9)	44	193	981	3,344	12,495	27,471
TOTAL PORTFOLIO	51,708	432,720	680,072	31,438	173,858	270,024

NOTES: (1) Absence of data indicates program has not been launched.
(2) Appliance Turn-In Program includes PYTD and CPITD participants and energy savings for appliance recycling previously reported under Residential Energy Star & High Efficiency Appliance Program (currently called Residential Energy Efficient Products Program).
(3) Residential Energy Efficient Products Program was previously called Residential Energy Star & High Efficiency Appliance Program. This program includes PYTD and CPITD participants and energy savings for all of the previously reported appliances, the former CFL Rewards Program and the Hot Water Heater Measure from the Residential Whole Home Appliance Efficiency Program (currently called Residential Energy Efficient HVAC Equipment Program).
(4) Residential Energy Efficient HVAC Equipment Program was previously called Residential Whole Home Appliance Efficiency Program. This program includes PYTD and CPITD participants and energy savings for all of the previously reported HVAC appliances with the exception of the Hot Water Heater Measure which is currently being reported under the Residential Energy Efficient Products Program.
(5) The Residential Home Performance Program includes all measures previously reported under this program except for certain measures under Consumer Efficiency measure which are currently being reported under the Residential Energy Efficient Products Program.
(6) Limited Income Energy Efficiency (LIEEP) Program was previously called Residential Low Income Home Performance Check-Up Audit & Appliance Replacement Program.
(7) Commercial & Industrial Equipment - Small Program includes PYTD and CPITD participants and energy savings which were previously reported under the Commercial HVAC Efficiency Program, Commercial Products Efficiency Program and Custom Technology Applications Program.
(8) Commercial & Industrial Equipment - Large Program includes PYTD and CPITD participants and energy savings which were previously reported under the Custom Applications Program and CPITD participants and energy savings which were previously reported under the former Commercial & Industrial Drives Program.
(9) Governmental and Institutional Program was previously called Governmental/Non-Profit Lighting Efficiency Program. This program includes the PYTD and CPITD participants and energy savings previously reported under this program, as well as, participants and energy savings related to government entities which were formerly reported under the Custom Technology Applications Program, Custom Applications Program and Commercial Products Efficiency Program.

Table 1-4: EDC Reported Gross Energy Savings by Program through the Third Quarter, Program Year 3

Program	Projects In Progress (MWh)	Unverified Ex Post Savings (MWh)	PYTD Total Committed (MWh)	EE&C Plan Estimate for Program Year	Percent of Estimate Committed (%)
Residential Appliance Turn-In Program	417		3,726	7,690	48%
Residential Energy Efficient Products Program	1,255		24,419	41,804	58%
Residential Energy Efficient HVAC Equipment Program	33		1,060	2,528	42%
Residential Home Performance Program			94,192	103,939	91%
Critical Peak Rebate (CPR) Rate				458	0%
Limited Income Energy Efficiency Program (LIEEP)			6,766	7,494	90%
Joint Utility Usage Management Program			76	2,249	3%
Commercial & Industrial Equipment Program - Small	4,979		19,004	63,430	30%
Time of Use (TOU) with Critical Peak Pricing (CPP) Rate				2,319	0%
Commercial & Industrial Equipment Program - Large	377		19,180	52,791	36%
Customer Load Response Program				376	0%
Customer Resources Demand Response Program				188	0%
Distributed Generation Program				329	0%
Conservation Voltage Reduction (CVR) Program				45,859	0%
Governmental and Institutional Program	232		12,727	27,105	47%
Total	7,292		181,150	358,559	51%

NOTES: (1) "Unverified Ex Post Savings" are unverified savings pending approval of TRM or Custom Measure Protocol by the Commission.
(2) Absence of data indicates that program has not been launched.
(3) EE&C Plan Estimate for Program Year reflects Plan approved on October 28, 2011.
(4) EE&C Plan Estimate for Program Year for Commercial & Industrial Drives Program is included in Custom Technology Applications Program and Custom Applications Program.

A summary of evaluation verified energy impacts by program is presented in Table 1-5.

Table 1-5: Preliminary Energy Savings by Program through the Third Quarter, Program Year 3

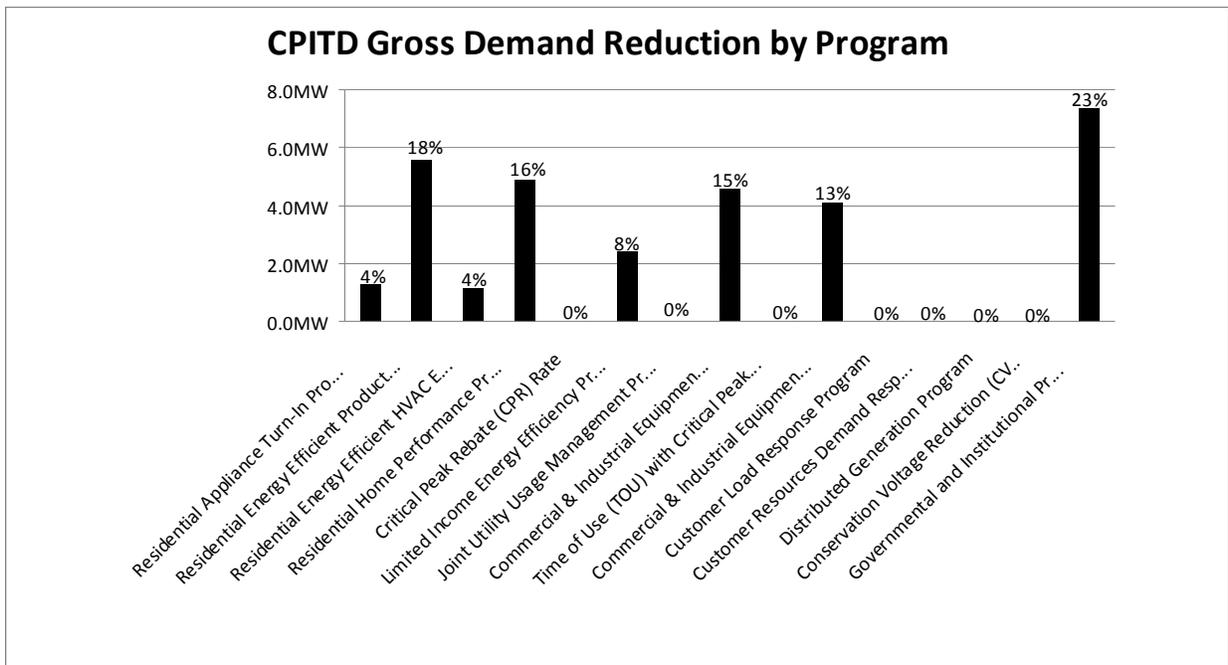
Program	PYTD Reported Gross Impact (MWh)	Preliminary Realization Rate	Preliminary PYTD Verified Impact (MWh)	Net-to-Gross Ratio	PYTD Net Impact (MWh)
Residential Appliance Turn-In Program	3,309	100%	3,309	100%	3,309
Residential Energy Efficient Products Program	23,164	100%	23,164	100%	23,164
Residential Energy Efficient HVAC Equipment Program	1,027	100%	1,027	100%	1,027
Residential Home Performance Program	94,192	100%	94,192	100%	94,192
Critical Peak Rebate (CPR) Rate		N/A		N/A	
Limited Income Energy Efficiency Program (LIEEP)	6,766	100%	6,766	100%	6,766
Joint Utility Usage Management Program	76	100%	76	100%	76
Commercial & Industrial Equipment Program - Small	14,025	100%	14,025	100%	14,025
Time of Use (TOU) with Critical Peak Pricing (CPP) Rate		N/A		N/A	
Commercial & Industrial Equipment Program - Large	18,803	100%	18,803	100%	18,803
Customer Load Response Program		N/A		N/A	
Customer Resources Demand Response Program		N/A		N/A	
Distributed Generation Program		N/A		N/A	
Conservation Voltage Reduction (CVR) Program		N/A		N/A	
Governmental and Institutional Program	12,495	100%	12,495	100%	12,495
Total	173,858	100%	173,858	100%	173,858

NOTES: (1) Absence of data in PYTD Reported Gross Impact (MWh) column indicates program has not been launched.
(2) Realization rates for programs are pending upon completion of primary data collection and analysis. They are nominally set at 100% based on tracking data review and historical results from PY1 and PY2.

1.3 Summary of Demand Impacts by Program

A summary of the reported demand reduction by program is presented in Figure 1-2.⁹

Figure 1-2: Reported Demand Reduction by Program through the Third Quarter, Program Year 3



A summary of demand reduction impacts by program through the Third Quarter, Program Year 3 is presented in Table 1-6 and Table 1-7.

⁹ Absence of data indicates program has not been launched.

Table 1-6: Participation and Reported Gross Demand Reduction by Program through the Third Quarter, Program Year 3

Program	Participants			Reported Gross Impact (MW)		
	IQ	PYTD	CPITD	IQ	PYTD	CPITD
Residential Appliance Turn-In Program (Note 3)	928	2,113	4,381	0.2	0.6	1.3
Residential Energy Efficient Products Program (Note 4)	18,365	101,201	300,809	0.5	2.0	5.6
Residential Energy Efficient HVAC Equipment Program (Note 5)	316	1,241	3,224	0.2	0.4	1.1
Residential Home Performance Program (Note 6)	31,723	303,978	340,781	0.4	4.3	4.9
Critical Peak Rebate (CPR) Rate		19,507	19,507			
Limited Income Energy Efficiency Program (LIEEP) (Note 7)	259	4,224	9,848	0.3	1.2	2.4
Joint Utility Usage Management Program	31	94	214	0.0	0.0	0.0
Commercial & Industrial Equipment Program - Small (Note 8)	34	139	287	0.8	2.3	4.6
Time of Use (TOU) with Critical Peak Pricing (CPP) Rate						
Commercial & Industrial Equipment Program - Large (Note 9)	8	30	40	0.4	3.3	4.1
Customer Load Response Program						
Customer Resources Demand Response Program						
Distributed Generation Program						
Conservation Voltage Reduction (CVR) Program						
Governmental and Institutional Program (Note 10)	44	193	981	0.8	3.1	7.4
TOTAL PORTFOLIO	51,708	432,720	680,072	3.7	17.1	31.4
NOTES: (1) Absence of data indicates program has not been launched.						
(2) MW total may differ from sum of individual components due to rounding.						
(3) Appliance Turn-In Program includes PYTD and CPITD participants and energy savings for appliance recycling previously reported under Residential Energy Star & High Efficiency Appliance Program (currently called Residential Energy Efficient Products Program).						
(4) Residential Energy Efficient Products Program was previously called Residential Energy Star & High Efficiency Appliance Program. This program includes PYTD and CPITD participants and energy savings for all of the previously reported appliances, the former CFL Rewards Program and the Hot Water Heater Measure from the Residential Whole Home Appliance Efficiency Program (currently called Residential Energy Efficient HVAC Equipment Program).						
(5) Residential Energy Efficient HVAC Equipment Program was previously called Residential Whole Home Appliance Efficiency Program. This program includes PYTD and CPITD participants and energy savings for all of the previously reported HVAC appliances with the exception of the Hot Water Heater Measure which is currently being reported under the Residential Energy Efficient Products Program.						
(6) The Residential Home Performance Program includes all measures previously reported under this program except for certain measures under Consumer Efficiency measure which are currently being reported under the Residential Energy Efficient Products Program.						
(7) Limited Income Energy Efficiency (LIEEP) Program was previously called Residential Low Income Home Performance Check-Up Audit & Appliance Replacement Program.						
(8) Commercial & Industrial Equipment - Small Program includes PYTD and CPITD participants and energy savings which were previously reported under the Commercial HVAC Efficiency Program, Commercial Products Efficiency Program and Custom Technology Applications Program.						
(9) Commercial & Industrial Equipment - Large Program includes PYTD and CPITD participants and energy savings which were previously reported under the Custom Applications Program and CPITD participants and energy savings which were previously reported under the former Commercial & Industrial Drives Program.						
(10) Governmental and Institutional Program was previously called Governmental/Non-Profit Lighting Efficiency Program. This program includes the PYTD and CPITD participants and energy savings previously reported under this program, as well as, participants and energy savings related to government entities which were formerly reported under the Custom Technology Applications Program, Custom Applications Program and Commercial Products Efficiency Program.						

Table 1-7: Reported Gross Demand Reduction by Program through the Third Quarter, Program Year 3

Program	Projects In Progress (MW)	Unverified Ex Post Savings (MW)	PYTD Total Committed (MW)	EE&C Plan Estimate for Program Year	Percent of Estimate Committed (%)
Residential Appliance Turn-In Program	0.1		0.6	1.4	44%
Residential Energy Efficient Products Program	0.1		2.1	2.8	75%
Residential Energy Efficient HVAC Equipment Program	0.0		0.4	0.9	45%
Residential Home Performance Program			4.3	5.9	73%
Critical Peak Rebate (CPR) Rate				6.9	0%
Limited Income Energy Efficiency Program (LIEEP)			1.2	1.2	99%
Joint Utility Usage Management Program			0.0	0.4	3%
Commercial & Industrial Equipment Program - Small	1.0		3.2	12.7	25%
Time of Use (TOU) with Critical Peak Pricing (CPP) Rate				7.0	0%
Commercial & Industrial Equipment Program - Large			3.3	8.3	39%
Customer Load Response Program				9.4	0%
Customer Resources Demand Response Program				72.4	0%
Distributed Generation Program				6.6	0%
Conservation Voltage Reduction (CVR) Program				5.2	0%
Governmental and Institutional Program	0.1		3.2	5.4	58%
Total	1.2		18.3	146.6	13%

NOTES: (1) "Unverified Ex Post Savings" are unverified savings pending approval of TRM or Custom Measure Protocol by the Commission.
(2) Absence of data indicates that program has not been launched.
(3) MW total may differ from sum of individual components due to rounding.

A summary of evaluation adjusted demand impacts by program is presented in Table 1-8.

Table 1-8: Verified Demand Reduction by Program through the Third Quarter, Program Year 3

Program	PYTD Reported Gross Impact (MW)	Preliminary Realization Rate	Preliminary PYTD Verified Impact (MW)	Net-to-Gross Ratio	PYTD Net Impact (MW)
Residential Appliance Turn-In Program	0.6	100%	0.6	100%	0.6
Residential Energy Efficient Products Program	2.0	100%	2.0	100%	2.0
Residential Energy Efficient HVAC Equipment Program	0.4	100%	0.4	100%	0.4
Residential Home Performance Program	4.3	100%	4.3	100%	4.3
Critical Peak Rebate (CPR) Rate		N/A		N/A	
Limited Income Energy Efficiency Program (LIEEP)	1.2	100%	1.2	100%	1.2
Joint Utility Usage Management Program	0.0	100%	0.0	100%	0.0
Commercial & Industrial Equipment Program - Small	2.3	100%	2.3	100%	2.3
Time of Use (TOU) with Critical Peak Pricing (CPP) Rate		N/A		N/A	
Commercial & Industrial Equipment Program - Large	3.3	100%	3.3	100%	3.3
Customer Load Response Program		N/A		N/A	
Customer Resources Demand Response Program		N/A		N/A	
Distributed Generation Program		N/A		N/A	
Conservation Voltage Reduction (CVR) Program		N/A		N/A	
Governmental and Institutional Program	3.1	100%	3.1	100%	3.1
Total	17.1	100%	17.1	100%	17.1

NOTES: (1) Absence of data in PYTD Reported Gross Impact (MW) column indicates program has not been launched.

1.4 Summary of Evaluation

Realization rates are calculated to adjust reported savings based on statistically significant verified savings measured by the EM&V team. The realization rate is defined as the percentage of reported savings that is achieved, as determined through the independent evaluation review. A realization rate of 1 or 100% indicates no difference between the reported and achieved savings. Realization rates are determined by certain attributes relative to one of three protocol types. Fully deemed TRM measure realization rates are driven by differences in the number of installed measures. Partially deemed TRM measure¹⁰ realization rates are driven by (1) differences in the number of installed measures and (2) differences in the variables. Custom measure realization rates are driven by differences in the energy savings determined by approved EM&V protocols. The protocol type determines the data type that is sampled. The EM&V team calculates realization rates based on the best engineering estimate for each program savings as identified through the EM&V effort. The methodology used to calculate the program realization rate based on the best engineering estimate varied by program as described in detail in West Penn Power's evaluation plan.

West Penn Power has contracted with an independent evaluation, measurement, and verification team comprised of Tetra Tech and ADM Associates for its PA Act 129 energy efficiency and demand response portfolio of programs. Evaluation efforts are underway; however, there are no evaluation results to report for this reporting period.

¹⁰ TRM measures with stipulated values and variables.

1.4.1 Impact Evaluation

In accordance with the PA Statewide Evaluator's recent updates to the Audit Plan, the impact evaluation sample sizes will be sufficient to report verified savings with +/- 15% relative precision at the 85% confidence level for all programs. Verified savings will be reported with +/- 10% precision at the 90% confidence level for the residential and non-residential sectors respectively, and the government/non-profit sectors will be treated as independent programs with 85/15 confidence/precision if their savings comprise at least 20% of the sector-level savings.

The following activities are performed in order to conduct the impact evaluation of the energy efficiency and conservation programs:

- Review of ex-ante calculations, assumptions and evaluation protocols in the TRM;
- Participation in technical working groups regarding the addition of new evaluation protocols to the TRM;
- Drafting, peer-review, and submittal of evaluation protocols for the interim TRM;
- Review of the Statewide Evaluator's Audit Plan;
- Drafting of impact evaluation plans for all programs;
- Review of rebate forms and data collection requirements for programs;
- Review of energy efficiency program tracking protocols and systems;
- Review of ex-ante calculations associated with rebates, and pertinent feedback to the Companies;
- Drawing of samples for impact evaluation;
- Site visits, monitoring, and other data gathering;
- Analysis of data collected on-site;
- Determination of the verified energy savings and demand reductions; and
- Determination of the verified energy savings and demand reductions attributable to the low income residential sector.

The realization rates for each program are presented in the following table:

Table 1-9: Summary of Realization Rates and Confidence Intervals (CI) for kWh

Program	PYTD Sample Participants	Program Year Sample Participant Target	Preliminary Realization Rate (1) for kWh	Confidence and Precision For kWh	Preliminary Realization Rate for kW	Confidence and Precision for kW
Residential Appliance Turn-In Program	0	70 web surveys	100%	N/A	100%	N/A
Residential Energy Efficient Products Program	0	330 web surveys	100%	N/A	100%	N/A
Residential Energy Efficient HVAC Equipment Program	0	150 web surveys	100%	N/A	100%	N/A
Residential Home Performance Program (2)	0	TBD	100%	N/A	100%	N/A
Critical Peak Rebate (CPR) Rate	0	70 phone surveys	N/A	N/A	N/A	N/A
Limited Income Energy Efficiency Program (LIEEP) (3)	0	105 phone surveys: 35 audit and kit; 35 audit, kit, and appliance; and 35 appliance only	100%	N/A	100%	N/A
Joint Utility Usage Management Program	0	Census phone surveys, 5 on-sites	100%	N/A	100%	N/A
Commercial & Industrial Equipment Program - Small	0	Non-lighting Projects - 5 on-sites; Lighting Projects - 30 on-sites, 70 phone surveys (4)	100%	N/A	100%	N/A
Time of Use (TOU) with Critical Peak Pricing (CPP) Rate	0	Census phone surveys	N/A	N/A	N/A	N/A
Commercial & Industrial Equipment Program - Large	0	5 on-sites (4)	100%	N/A	100%	N/A
Customer Load Response Program	N/A	N/A	N/A	N/A	N/A	N/A
Customer Resources Demand Response Program	N/A	N/A	N/A	N/A	N/A	N/A
Distributed Generation Program	N/A	N/A	N/A	N/A	N/A	N/A
Conservation Voltage Reduction (CVR) Program	N/A	N/A	N/A	N/A	N/A	N/A
Governmental and Institutional Program	0	70 phone surveys, 30 on-sites (4)	100%	N/A	100%	N/A
Total	0	565	100%	N/A	100%	N/A

NOTES: (1) Realization rates for programs are pending upon completion of primary data collection and analysis. They are nominally set at 100% based on tracking data review and historical results from PY1 and PY2.
 (2) Sampling plan to be determined after the end of PY3 and will be based upon participation in the new program design.
 (3) LIEEP is being evaluated as implemented in prior name and design (Residential Low Income home Performance Check-Up Audit & Appliance Replacement Program) in PY3. In PY4, it will be evaluated under current name and design as it transitions to that model.
 (4) The final Program Year Sample Participation Target will depend upon end of year participation.

1.4.2 Process Evaluation

Comprehensive process evaluations were conducted for all programs that were implemented in PY2; therefore, PY3 process evaluation activities will be more targeted to key issues for each program. In addition, a process evaluation for the Critical Peak Rebate (CPR) and Time of Use (TOU) programs are planned for the PY3 third quarter to inform summer implementation efforts.

1.5 Summary of Finances

The TRC test demonstrates the cost-effectiveness of a program by comparing the total economic benefits to the total costs. A breakdown of the portfolio finances is presented in Table 1-10.

Table 1-10: Summary of Portfolio Finances: TRC Test¹¹

	<u>Category</u>	<u>IQ</u>	<u>PYTD</u>	<u>CPITD</u>
A.1	EDC Incentives to Participants	\$ 2,989,940	\$ 12,601,363	\$ 19,909,805
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	Subtotal EDC Incentive Costs	\$ 2,989,940	\$ 12,601,363	\$ 19,909,805
B.1	Design & Development ¹	\$ 27,854	\$ 78,551	\$ 1,787,164
B.2	Administration ²	\$ 268,249	\$ 921,472	\$ 3,348,112
B.3	Management ³	\$ -	\$ -	\$ -
B.4	Marketing ⁴	\$ 260,362	\$ 1,192,903	\$ 4,391,186
B.5	Technical Assistance ⁵	\$ 648,261	\$ 4,261,091	\$ 7,159,093
B	Subtotal EDC Implementation Costs	\$ 1,204,726	\$ 6,454,017	\$ 16,685,555
C	EDC Evaluation Costs	\$ 47,719	\$ 473,237	\$ 1,436,853
D	SWE Audit Costs	\$ -	\$ 250,000	\$ 1,294,242
E	Participant Costs			
	Total Costs	\$ 4,242,385	\$ 19,778,617	\$ 39,326,455
F	Annualized Avoided Supply Costs			
G	Lifetime Avoided Supply Costs			
	Total Lifetime Economic Benefits			
	Portfolio Benefit-to-Cost Ratio			
NOTES:				
¹ Internal labor related to design, development and modeling EE programs.				
² Internal Labor for EE program implementation and call center representatives, employee expenses, and common costs.				
³ N/A				
⁴ Costs incurred for CSP provider.				
⁵ Outside Services for CSP's related to program management.				

¹¹ Definitions for terms in following table are subject to TRC Order. Various cost and benefit categories are subject to change pending the outcome of TRC Technical Working Group discussions.

The TRC for each program is presented in Table 1-11.

Table 1-11: Summary of Portfolio Budget by Program

Program	TRC Benefits (\$)	TRC Costs (\$)	TRC Benefit-Cost Ratio
Residential Appliance Turn-In Program	\$ 9,531,000	\$ 1,911,000	5.0
Residential Energy Efficient Products Program	\$ 35,376,000	\$ 17,301,000	2.0
Residential Energy Efficient HVAC Equipment Program	\$ 3,130,000	\$ 4,281,000	0.7
Residential Home Performance Program	\$ 24,041,000	\$ 14,293,000	1.7
Critical Peak Rebate (CPR) Rate	\$ 343,000	\$ 903,000	0.4
Limited Income Energy Efficiency Program (LIEEP)	\$ 6,277,000	\$ 4,808,000	1.3
Joint Utility Usage Management Program	\$ 3,732,000	\$ 3,427,000	1.1
Commercial & Industrial Equipment Program - Small	\$ 57,736,000	\$ 26,260,000	2.2
Time of Use (TOU) with Critical Peak Pricing (CPP) Rate	\$ 851,000	\$ 695,000	1.2
Commercial & Industrial Equipment Program - Large	\$ 41,085,000	\$ 19,248,000	2.1
Customer Load Response Program	\$ 319,000	\$ 2,651,000	0.1
Customer Resources Demand Response Program	\$ 1,099,000	\$ 4,838,000	0.2
Distributed Generation Program	\$ 255,000	\$ 1,021,000	0.2
Conservation Voltage Reduction (CVR) Program	\$ 22,658,000	\$ 3,886,000	5.8
Governmental and Institutional Program	\$ 26,879,000	\$ 11,391,000	2.4
Total for Plan	\$ 233,312,000	\$ 116,914,000	2.0
NOTES:			

2 Portfolio Results by Sector

The EE&C Implementation Order issued on January 15, 2009 states requirements for specific sectors on page 11. In order to comply with these requirements, each program has been categorized into one of the following sectors:

1. Residential EE (excluding Low-Income)
2. Residential Low-Income EE
3. Small Commercial & Industrial EE
4. Large Commercial & Industrial EE
5. Government & Non-Profit EE

A summary of portfolio gross energy savings and gross demand reduction by sector is presented in Figure 2-1 and Figure 2-2.

Figure 2-1: PYTD Reported Gross Energy Savings by Sector

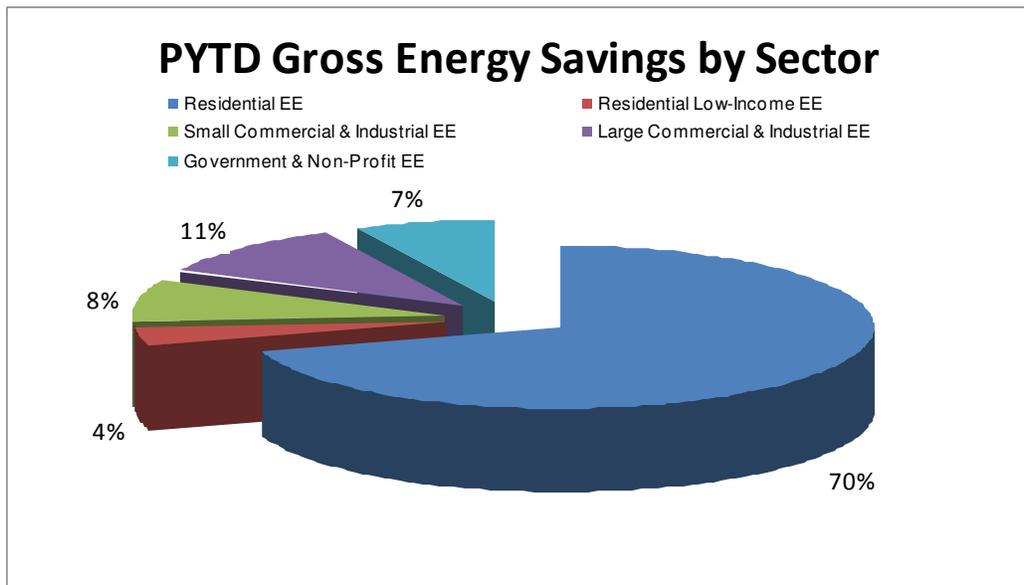
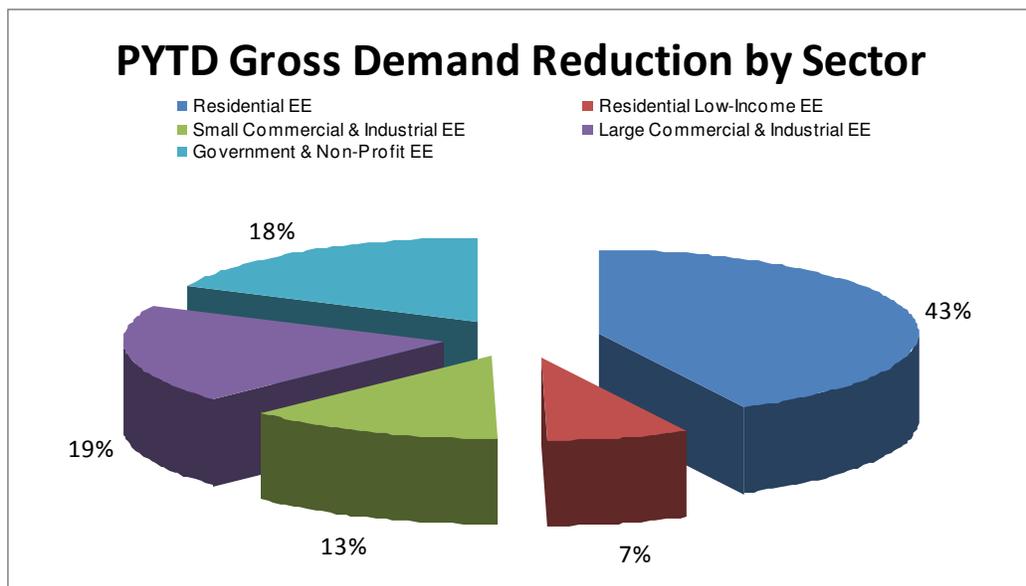


Figure 2-2: PYTD Reported Gross Demand Reduction by Sector



A portfolio summary of results by sector is presented in Table 2-1 and Table 2-2.

Table 2-1: Reported Gross Energy Savings by Sector through the Third Quarter, Program Year 3

Market Sector	Reported Gross Impact (MWh)			Projects in Progress	Total Committed	Unverified Ex Post Savings
	IQ	PYTD	CPITD			
Residential EE	16,464	121,693	179,288	1,705	123,398	0
Residential Low-Income EE	2,183	6,842	13,672	0	6,842	0
Small Commercial & Industrial EE	6,092	14,025	26,310	4,979	19,004	0
Large Commercial & Industrial EE	3,356	18,803	23,283	377	19,180	0
Government & Non-Profit EE	3,344	12,495	27,471	232	12,727	0
TOTAL PORTFOLIO	31,438	173,858	270,024	7,292	181,150	0

NOTES: (1) "Unverified Ex Post Savings" are unverified savings pending approval of TRM or Custom Measure Protocol by the Commission.
 (2) MWh total may differ from sum of individual components due to rounding.

Table 2-2: Reported Gross Demand Reduction by Sector through the Third Quarter, Program Year 3

Market Sector	Reported Gross Impact (MW)			Projects in Progress	Total Committed	Unverified Ex Post Savings
	IQ	PYTD	CPITD			
Residential EE	1.4	7.3	12.9	0.2	7.5	0.0
Residential Low-Income EE	0.3	1.2	2.4	0.0	1.2	0.0
Small Commercial & Industrial EE	0.8	2.3	4.6	1.0	3.2	0.0
Large Commercial & Industrial EE	0.4	3.3	4.1	0.0	3.3	0.0
Government & Non-Profit EE	0.8	3.1	7.4	0.1	3.2	0.0
TOTAL PORTFOLIO	3.7	17.1	31.4	1.2	18.3	0.0

NOTES: (1) "Unverified Ex Post Savings" are unverified savings pending approval of TRM or Custom Measure Protocol by the Commission.
 (2) MW total may differ from sum of individual components due to rounding.

2.1 Residential EE Sector

The sector target for annual energy savings is 156,418 MWh and the sector target for annual peak demand reduction is 17.9 MW.

A sector summary of results by program is presented in Table 2-3 and Table 2-4.

Table 2-3: Summary of Residential EE Sector Incremental Impacts by Program through the Third Quarter, Program Year 3

Residential EE Sector	IQ Participants	IQ Reported Gross Energy Savings (MWh)	IQ Reported Gross Demand Reduction (MW)
Residential Appliance Turn-In Program	928	1,631	0.2
Residential Energy Efficient Products Program	18,365	4,723	0.5
Residential Energy Efficient HVAC Equipment Program	316	377	0.2
Residential Home Performance Program	31,723	9,732	0.4
Critical Peak Rebate (CPR) Rate			
Total for Residential Programs	51,332	16,464	1.4

NOTES: (1) Absence of data indicates program has not been launched.
(2) MW total may differ from sum of individual components due to rounding.

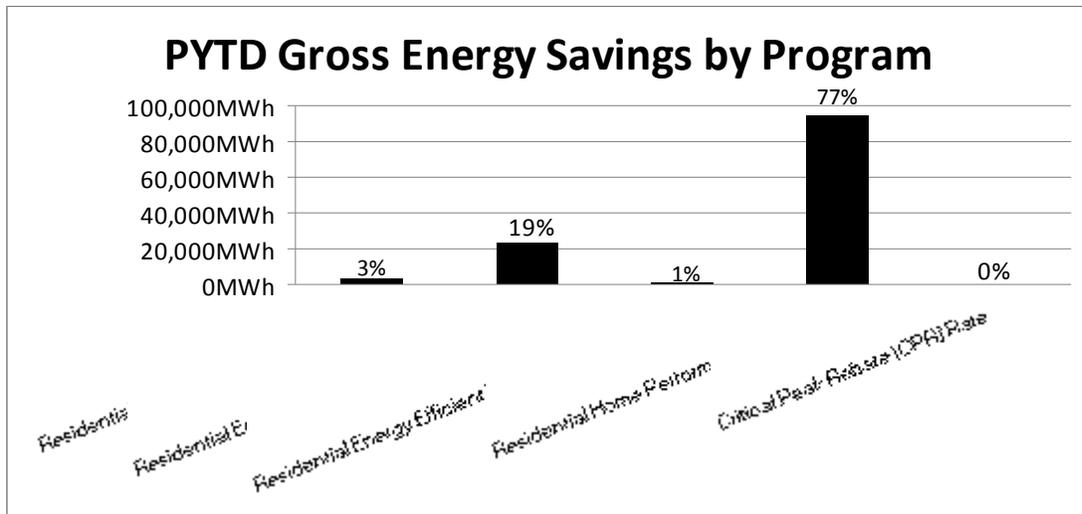
Table 2-4: Summary of Residential EE Sector PYTD Impacts by Program through the Third Quarter, Program Year 3

Residential EE Sector	PYTD Participants	PYTD Reported Gross Energy Savings (MWh)	PYTD Reported Gross Demand Reduction (MW)
Residential Appliance Turn-In Program	2,113	3,309	0.6
Residential Energy Efficient Products Program	101,201	23,164	2.0
Residential Energy Efficient HVAC Equipment Program	1,241	1,027	0.4
Residential Home Performance Program	303,978	94,192	4.3
Critical Peak Rebate (CPR) Rate	19,507		
Total for Residential Programs	428,040	121,693	7.3

NOTES: (1) Absence of data indicates program has not been launched.
(2) MW total may differ from sum of individual components due to rounding.

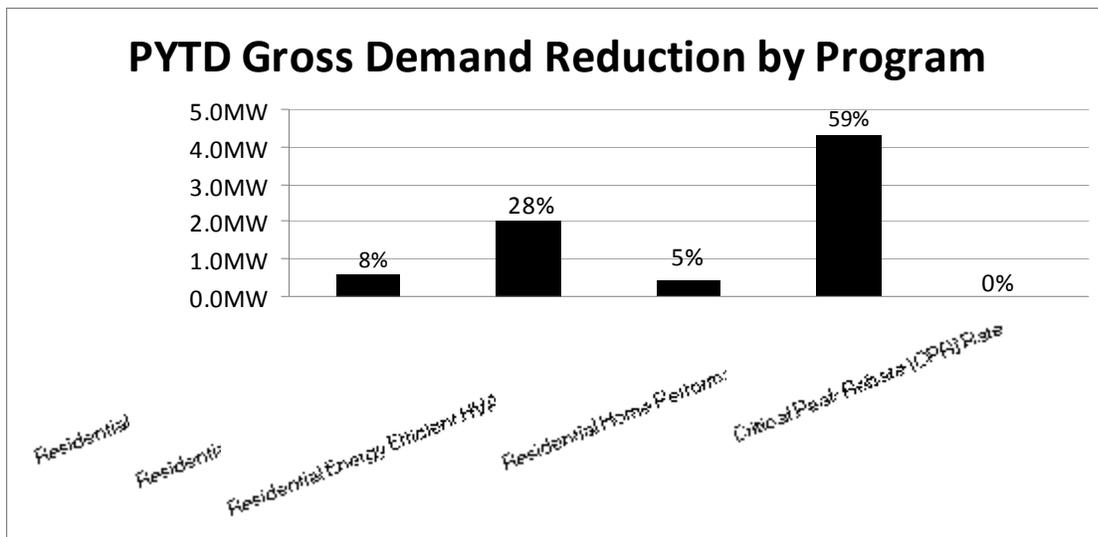
A summary of the sector energy savings by program is presented in Figure 2-3.¹²

Figure 2-3: Summary of Residential EE Sector PYTD Reported Gross Energy Savings by Program



A summary of the sector demand reduction by program is presented in Figure 2-4.¹³

Figure 2-4: Summary of Residential EE Sector PYTD Reported Demand Reduction by Program



¹² Absence of data indicates program has not been launched.

¹³ Absence of data indicates program has not been launched.

2.2 Residential Low-Income EE Sector

The sector target for annual energy savings is 9,742 MWh and the sector target for annual peak demand reduction is 1.59 MW.

A sector summary of results by program is presented in Table 2-5 and Table 2-6.

Table 2-5: Summary of Residential Low-Income EE Sector Incremental Impacts by Program through the Third Quarter, Program Year 3

Residential Low Income EE Sector	IQ Participants	IQ Reported Gross Energy Savings (MWh)	IQ Reported Gross Demand Reduction (MW)
Limited Income Energy Efficiency Program (LIEEP)	259	2,168	0.3
Joint Utility Usage Management Program	31	15	0.0
Total for Low Income Sector	290	2,183	0.3

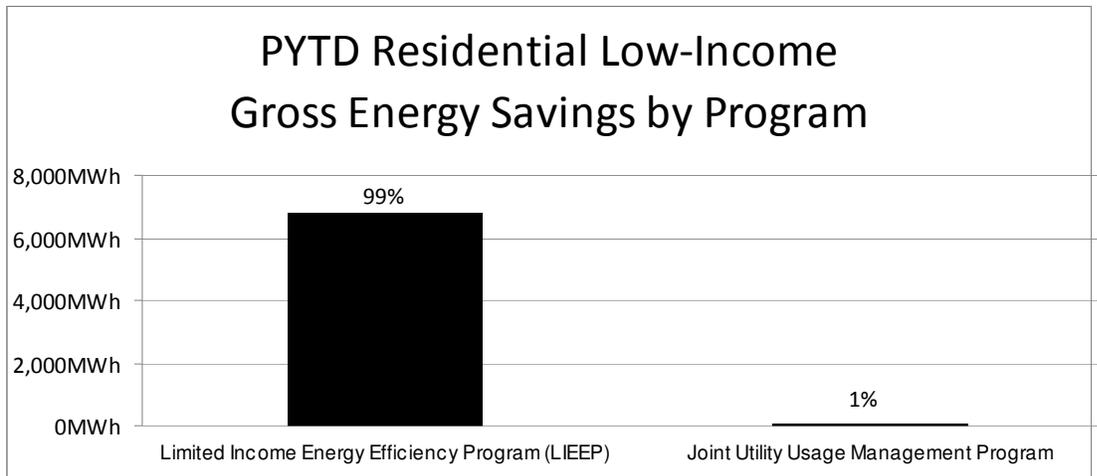
NOTES: (1) MW total may differ from sum of individual components due to rounding.
(2) IQ reflects negative value due to adoption of TRM 2011 per unit savings values for showerheads and faucet aerators. CPITD and PYTD values also reflect this adjustment.

Table 2-6: Summary of Residential Low-Income EE Sector PYTD Impacts by Program through the Third Quarter, Program Yr 3

Residential Low Income EE Sector	PYTD Participants	PYTD Reported Gross Energy Savings (MWh)	PYTD Reported Gross Demand Reduction (MW)
Limited Income Energy Efficiency Program (LIEEP)	4,224	6,766	1.2
Joint Utility Usage Management Program	94	76	0.0
Total for Low Income Sector	4,318	6,842	1.2

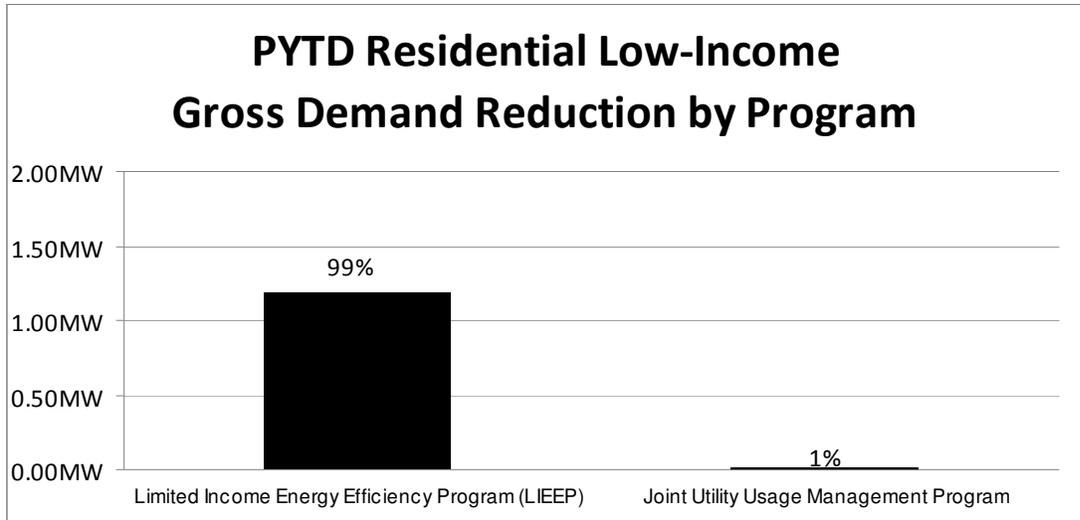
A summary of the sector energy savings by program is presented in Figure 2-5.

Figure 2-5: Summary of Residential Low-Income EE Sector PYTD Reported Gross Energy Savings by Program



A summary of the sector demand reduction by program is presented in Figure 2-6.

Figure 2-6: Summary of Residential Low-Income EE Sector PYTD Reported Demand Reduction by Program



2.3 Small Commercial & Industrial EE Sector

The sector target for annual energy savings is 65,749 MWh and the sector target for annual peak demand reduction is 19.7 MW.

A sector summary of results by program is presented in Table 2-7 and Table 2-8.

Table 2-7: Summary of Small Commercial & Industrial EE Sector Incremental Impacts by Program through the Third Quarter, Program Year 3

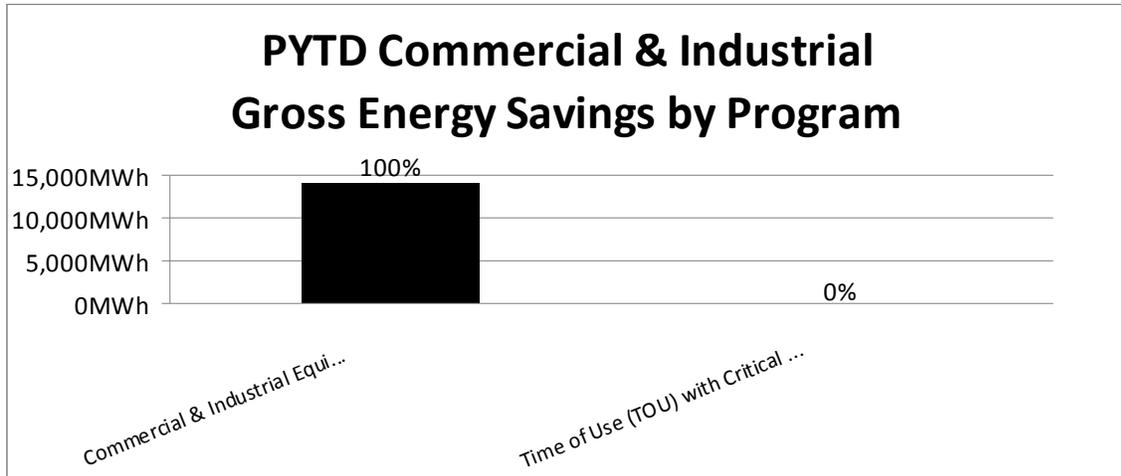
		IQ Reported Gross Energy Savings (MWh)	IQ Reported Gross Demand Reduction (MW)
Small Commercial & Industrial EE Sector	IQ Participants		
Commercial & Industrial Equipment Program - Small	34	6,092	0.8
Time of Use (TOU) with Critical Peak Pricing (CPP) Rate			
Total for Small Commercial & Industrial	34	6,092	0.8
NOTES: Absence of data indicates program has not been launched.			

Table 2-8: Summary of Small Commercial & Industrial EE Sector PYTD Impacts by Program through the Third Quarter, Program Year 3

		PYTD Reported Gross Energy Savings (MWh)	PYTD Reported Gross Demand Reduction (MW)
Small Commercial & Industrial EE Sector	PYTD Participants		
Commercial & Industrial Equipment Program - Small	139	14,025	2.3
Time of Use (TOU) with Critical Peak Pricing (CPP) Rate			
Total for Small Commercial & Industrial	139	14,025	2.3
NOTES: Absence of data indicates program has not been launched.			

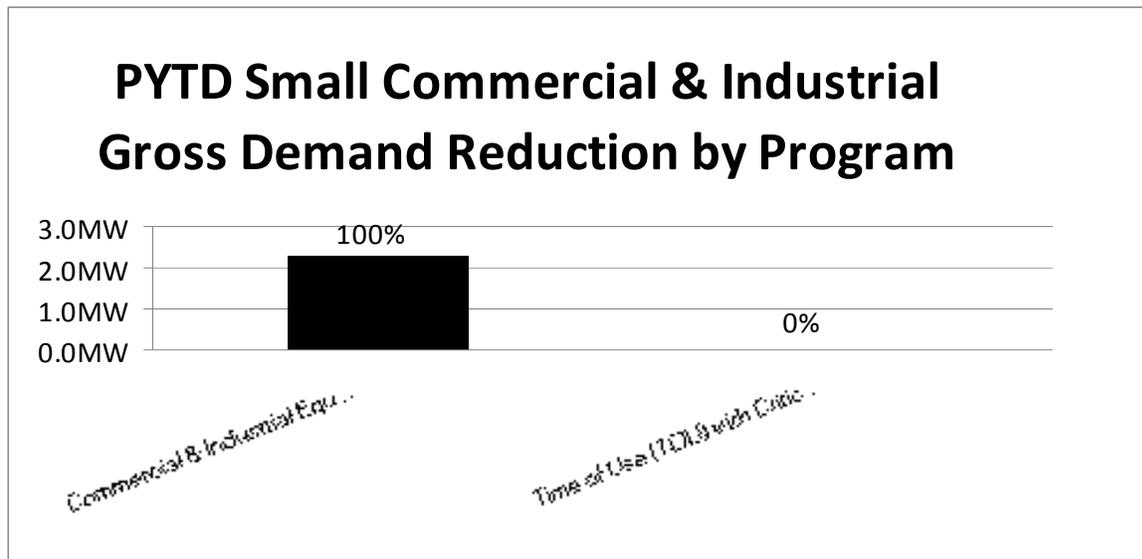
A summary of the sector energy savings by program is presented in Figure 2-7.¹⁴

Figure 2-7: Summary of Small Commercial & Industrial EE Sector PYTD Reported Gross Energy Savings by Program



A summary of the sector demand reduction by program is presented in Figure 2-8.¹⁵

Figure 2-8: Summary of Small Commercial & Industrial EE Sector PYTD Reported Demand Reduction by Program



¹⁴ Absence of data indicates program has not been launched.

¹⁵ Absence of data indicates program has not been launched.

2.4 Large Commercial & Industrial EE Sector

The sector target for annual energy savings is 99,543 MWh and the sector target for annual peak demand reduction 101.9 MW.

A sector summary of results by program is presented in Table 2-9 and Table 2-10.

Table 2-9: Summary of Large Commercial & Industrial EE Sector Incremental Impacts by Program through the Third Quarter, Program Year 3

Large Commercial & Industrial EE Sector	IQ Participants	IQ Reported Gross Energy Savings (MWh)	IQ Reported Gross Demand Reduction (MW)
Commercial & Industrial Equipment Program - Large	8	3,356	0.4
Customer Load Response Program			
Customer Resources Demand Response Program			
Distributed Generation Program			
Conservation Voltage Reduction (CVR) Program			
Total for Large Commercial & Industrial Sector	8	3,356	0.4

NOTES: Absence of data indicates program has not been launched.

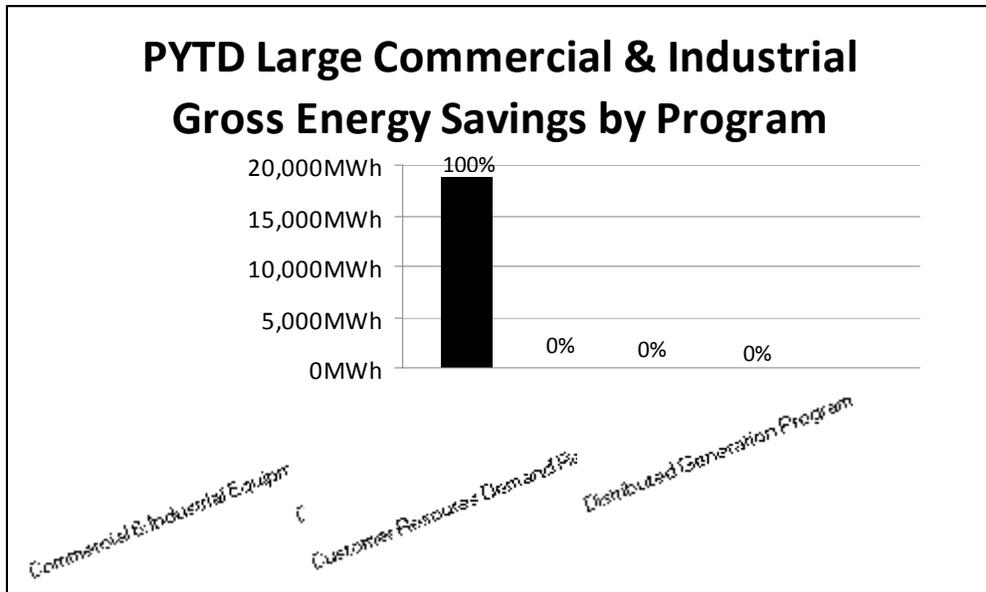
Table 2-10: Summary of Large Commercial & Industrial EE Sector PYTD Impacts by Program through the Third Quarter, Program Year 3

Large Commercial & Industrial EE Sector	PYTD Participants	PYTD Reported Gross Energy Savings (MWh)	PYTD Reported Gross Demand Reduction (MW)
Commercial & Industrial Equipment Program - Large	30	18,803	3.3
Customer Load Response Program			
Customer Resources Demand Response Program			
Distributed Generation Program			
Conservation Voltage Reduction (CVR) Program			
Total for Large Commercial & Industrial Sector	30	18,803	3.3

NOTES: (1) Absence of data indicates program has not been launched.
(2) MW total may differ from sum of individual components due to rounding.

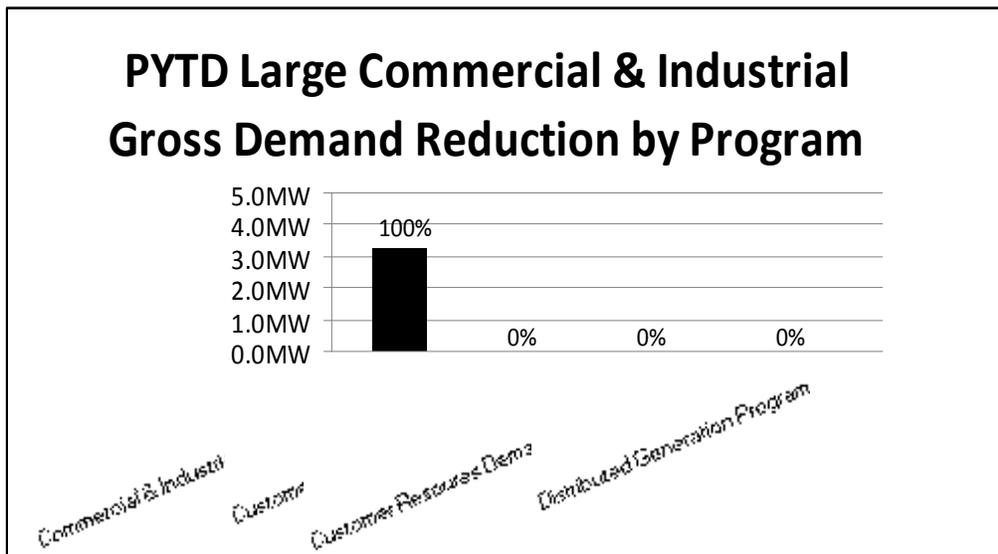
A summary of the sector energy savings by program is presented in Figure 2-9.¹⁶

Figure 2-9: Summary of Large Commercial & Industrial EE Sector PYTD Reported Gross Energy Savings by Program



A summary of the sector demand reduction by program is presented in Figure 2-10.¹⁷

Figure 2-10: Summary of Large Commercial & Industrial EE Sector PYTD Reported Demand Reduction by Program



¹⁶ Absence of data indicates program has not been launched.

¹⁷ Absence of data indicates program has not been launched.

2.5 Government & Non-Profit EE Sector

The sector target for annual energy savings is 27,105 MWh and the sector target for annual peak demand reduction is 5.4 MW.

A sector summary of results by program is presented in Table 2-11 and Table 2-12.

Table 2-11: Summary of Government & Non-Profit EE Sector Incremental Impacts by Program through the Third Quarter, Program Year 3

Gov't. & Non-Profit EE Sector	IQ Participants	IQ Reported Gross Energy Savings (MWh)	IQ Reported Gross Demand Reduction (MW)
Governmental and Institutional Program	44	3,344	0.8
Total for Gov't and Non-Profit EE Sector	44	3,344	0.8

NOTES: (1) MWh/MW total may differ from sum of individual components due to rounding.

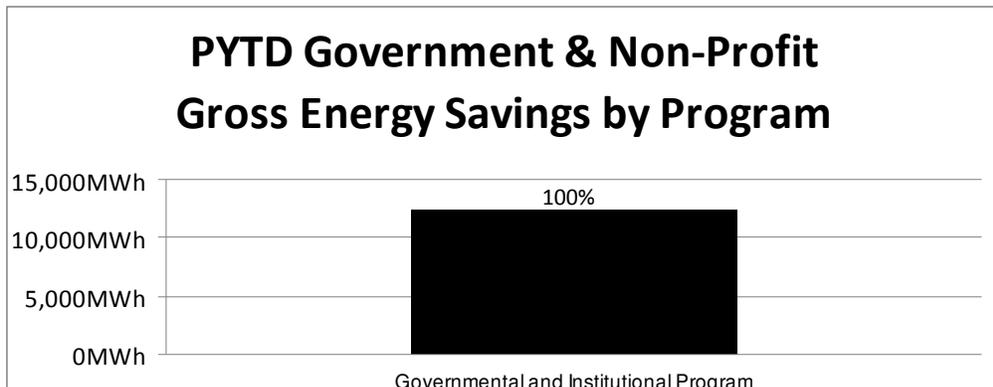
Table 2-12: Summary of Government & Non-Profit EE Sector PYTD Impacts by Program through the Third Quarter, Program Year 3

Gov't. & Non-Profit EE Sector	PYTD Participants	PYTD Reported Gross Energy Savings (MWh)	PYTD Reported Gross Demand Reduction (MW)
Governmental and Institutional Program	193	12,495	3.1
Total for Gov't and Non-Profit EE Sector	193	12,495	3.1

NOTES: (1) MWh/MW total may differ from sum of individual components due to rounding.

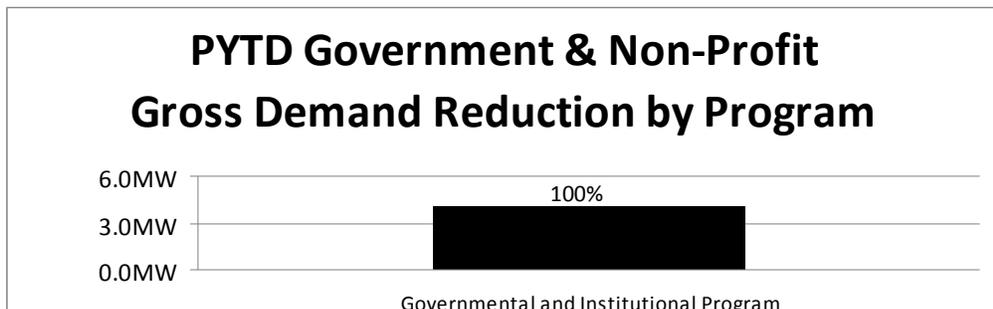
A summary of the sector energy savings by program is presented

Figure 2-11: Summary of Government & Non-Profit EE Sector PYTD Reported Gross Energy Savings by Program



A summary of the sector demand reduction by program is presented in Figure 2-12.

Figure 2-12: Summary of Government & Non-Profit EE Sector PYTD Reported Demand Reduction by Program



3 Demand Response

Demand response programs specifically target the reduction of peak demand through various demand-side management strategies. Demand Response programs will be piloted in the summer of 2011. Refer to Section 4 for program specific information.

WPP currently does not have any demand response program results to report in its 100 peak hours as interpreted by the PUC under Act 129.

4 Portfolio Results by Program

4.1 Residential Appliance Turn-In Program

Provides residential customers a cash incentive and disposal of up to two large older inefficient 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.

4.1.1 Program Logic

JACO is the program CSP hired by the Companies to deliver this program. JACO is also the CSP chosen across PA utilities to run this program. JACO's selection provides residential customers a collaborative approach to appliance collections.

JACO tests and confirms an appliance's eligibility for collection at the customer's residence prior to removing the appliance and issuing the incentive. Pre-testing of appliances may result in lower participation as a result of refusing non-working appliances, but will provide better quality control. Marketing to residential customers is conducted through various media and marketing channels to facilitate a targeted roll-out of the program and efficient collection in targeted areas. The marketing campaign includes a mix of digital media, direct mail, radio, web banners, television and newspaper advertising. In addition WPP uses monthly bill inserts to market this program to encourage residential customers to recycle targeted appliances.

4.1.2 Program M&V Methodology

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.

Verifying the savings from this program includes telephone and/or web survey verification, with the final sample encompassing a range of participants entering the program at various times throughout the year.

4.1.3 Program Sampling

The sampling approach for this program will target 90% confidence level and +/- 10% precision at the overall program level.

4.1.4 Process Evaluation

Process evaluation activities in PY3 will focus on the customer experience including awareness, satisfaction, and the program's influence on decision making process.

4.1.5 Program Partners and Trade Allies

JACO is the CSP for West Penn Power's Appliance Turn-In Program supporting residential customers.

4.1.6 Program Finances

A summary of the project finances are presented in Table 4-1.

Table 4-1: Summary of Residential Appliance Turn-In Program Finances: TRC Test¹⁸

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 37,755	\$ 118,730	\$ 314,435
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	Subtotal EDC Incentive Costs	\$ 37,755	\$ 118,730	\$ 314,435
B.1	Design & Development	\$ 442	\$ 442	\$ 442
B.2	Administration	\$ 12,249	\$ 46,635	\$ 146,332
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 20,830	\$ 209,005	\$ 763,702
B.5	Technical Assistance	\$ 79,161	\$ 326,934	\$ 778,176
B	Subtotal EDC Implementation Costs	\$ 112,682	\$ 583,016	\$ 1,688,652
C	EDC Evaluation Costs	\$ 2,697	\$ 17,319	\$ 78,453
D	SWE Audit Costs			
E	Participant Costs			
	Total Costs	\$ 153,134	\$ 719,065	\$ 2,081,540
F	Annualized Avoided Supply Costs			
G	Lifetime Avoided Supply Costs			
	Total Lifetime Economic Benefits			
	Portfolio Benefit-to-Cost Ratio			
NOTES:				
(1) Appliance Turn-In Program costs includes PYTD and CPITD costs for appliance recycling previously reported under Residential Energy Star & High Efficiency Appliance Program (currently called Residential Energy Efficient Products Program)				

¹⁸ Definitions for terms in following table are subject to TRC Order.

4.2 Residential Energy Efficient Products Program

The Energy Efficient (EE) Products program provides financial incentives to customers and support to retailers that sell energy efficient 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.

4.2.1 Program Logic

The program will encourage community-based initiatives that support documented distribution of energy-efficient products and energy-saving results. Such community-based initiatives include outreach through in-school training, college students, faith-based organizations, and municipal initiatives. The CSP will develop educational materials on the proper use and selection of high efficiency light bulbs, along with product discounts, coupons and price buy-down to incentivize customers to purchase CFLs, LEDs and other qualifying EE products.

For the program, the minimum qualifying efficiency ratings are based on current ENERGY STAR® qualified appliances published by the United States Environmental Protection Agency (US EPA). Customer incentives can be in many forms and all are paid by the utility. Incentives can range from \$1 to the full purchase price of a light bulb. One incentive will be a mark-down or buy-down program which is a shelf tag, display sticker or end-cap sign recognizing the incentive coming through the utility’s program. The discount is paid by the utility to the CFL manufacturer based off point-of-sale purchase data. A second incentive may include coupons through print media, bill inserts, or directly at the point of sale such as shelf-coupon pad redeemable at the register. These incentives would be paid by the utility and redeemable at participating retailers. A third method may include rebate forms that are mailed to a clearing house with rebate checks sent directly to customers. A fourth method may include discounts prepaid at the utility’s on-line store which allows customers to shop using the internet.

Dealer incentives and special promotional “events” will be used to encourage sales of high efficiency products, and/or retirement of less-efficient equipment (e.g. Torchiere lamps) through “buy down” first cost and/or promotion of eligible equipment to customers. Customer rebates will be available for selected appliances. Exchange program events for lighting and room air conditioners may also be employed at periodic events.

The message delivered to customers can be accomplished by using a variety of mass marketing tools including utility bill inserts, local newspaper circulars, direct mail, point-of-sale displays at retailers and the utility web site and on-line store. Retailers and manufacturers will also be involved cross-promoting product offers in conjunction with national campaigns like “Earth Day” and “Change a Light, Change the World” programs.

4.2.2 Program M&V Methodology

Gross Impact Analysis

The evaluation effort is conducted using separate methodologies for CFLs and for other appliances, with the details of the methodologies described in the subsections below.

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. The impact evaluation for the CFL program component will include the following components:

- Review of shipment invoices, including types and quantities of CFLs distributed to participating retailers.
- Review of CSP energy savings and demand reduction calculations.
 - A review of the assumptions regarding the wattages of the baseline incandescent bulbs presumed to be supplanted by CFLs is particularly important.

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.
- 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.

A realization rate for the appliance program component is calculated based on the results of the field verification and calculation review.

4.2.3 Program Sampling

The M&V of the upstream CFL program component does not require field work or customer surveys. A census of the calculations on electronic invoices is reviewed to ensure that the energy savings and demand reductions are claimed according to the protocols in the PA TRM.

The energy and demand savings calculations in the appliance rebate program tracking data are reviewed to ensure that the energy savings and demand reductions are claimed according to the protocols in the PA TRM.

The sample size for review of invoices and supporting documentation will be sufficient to determine gross impact with +/- 10% relative precision at the 90% confidence level. The sample size for on-site physical verifications will be sufficient to determine gross impact with +/- 30% relative precision at the 90% confidence level.

4.2.4 Process Evaluation

Process evaluation activities in PY3 will focus on the customer experience including awareness, satisfaction, and the program's influence on decision making process.

4.2.5 Program Partners and Trade Allies

Honeywell is the CSP for the West Penn Power Energy Efficient Products program for residential customers. Honeywell also maintains the point of sale agreements for the CFL point of sale program, which falls under the Energy Efficient Products Program. This includes both retailers and manufacturers.

4.2.6 Program Finances

A summary of the project finances are presented in Table 4-2.

Table 4-2: Summary of Residential Energy Efficient Products Program Finances: TRC Test¹⁹

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 443,010	\$ 1,140,733	\$ 2,980,665
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	Subtotal EDC Incentive Costs	\$ 443,010	\$ 1,140,733	\$ 2,980,665
B.1	Design & Development	\$ 3,945	\$ 10,283	\$ 265,255
B.2	Administration	\$ 40,834	\$ 137,512	\$ 351,004
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 30,831	\$ 474,936	\$ 2,040,628
B.5	Technical Assistance	\$ 236,626	\$ 412,521	\$ 756,788
B	Subtotal EDC Implementation Costs	\$ 312,236	\$ 1,035,252	\$ 3,413,675
C	EDC Evaluation Costs	\$ 11,026	\$ 72,623	\$ 278,592
D	SWE Audit Costs			
E	Participant Costs			
	Total Costs	\$ 766,272	\$ 2,248,608	\$ 6,672,932
F	Annualized Avoided Supply Costs			
G	Lifetime Avoided Supply Costs			
	Total Lifetime Economic Benefits			
	Portfolio Benefit-to-Cost Ratio			
NOTES:				
(1) Residential Energy Efficient Products Program was previously called Residential Energy Star & High Efficiency Appliance Program. This program includes PYTD and CPITD costs for all of the previously reported appliances, the former CFL Rewards Program and the Hot Water Heater Measure from the Residential Whole Home Appliance Efficiency Program (currently called Residential Energy Efficient HVAC Equipment Program)				

¹⁹ Definitions for terms in following table are subject to TRC Order.

4.3 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 EPA/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.

4.3.1 Program Logic

Program services will be delivered to customers by qualified local contractors identified by an implementation vendor or manufacturer of such equipment. Contractors will certify the proper sizing and installation of high-efficiency equipment. Qualifying equipment must meet or exceed ENERGY STAR® standards. Qualified HVAC equipment will include:

- High-efficiency Central Air Conditioning units (CAC)
- High-efficiency Air Source Heat Pumps (ASHP)
- High-efficiency Ground Source Heat Pumps (GSHP)
- CAC maintenance and furnace fan motor replacement meeting ENERGY STAR® guidelines.

Customers will receive rebates for the high efficiency HVAC equipment that is installed or serviced by a participating, qualified contractor.

4.3.2 Program M&V Methodology

Gross Impact Analysis

The evaluation effort will be conducted using separate methodologies for rebated HVAC equipment such as heat pumps, CACs and solar water heaters, and for HVAC maintenance. Details of the methodologies are described in the subsections below. A calculation review is part of all methodologies ensuring that the energy savings and demand reductions for each measure are calculated according to the appropriate protocols in the PA TRM.

Gross Impact for CACs and Heat Pumps

Savings associated with these HVAC equipment types are estimated using a partially deemed approach, with the kWh reduction determined using deemed hours of operation of the equipment for each EDCs service territory and nameplate information from the equipment regarding unit capacities and efficiencies. For small split HVAC systems, the baseline efficiencies are stipulated in the PA TRM and are in accordance with Federal codes and standards. For any ground source heat pump, the Federal code for air-source heat pumps is used as the baseline.

The “nameplate” data (e.g. capacity, SEER, EER, COP, HSPF) that provides the basis for the deemed savings calculation will be verified through a combination of on-site visits and customer interviews. For units in the sample, enough information will be gathered to cross-check the Air Conditioning, Heating,

and Refrigeration Institute (AHRI) certificate. The expected energy savings and demand reduction attributable to solar water heaters have been developed through technical working groups hosted by the PA Statewide Evaluator. The resulting gross impact evaluation protocol will be incorporated into the PA TRM.

Gross Impact for AC Tune Ups

The verification for AC tune-ups includes two components. First, it must be verified that a tune-up actually occurred as claimed in the DSM tracking system. Secondly, it must be verified that the tune-ups are performed according to a consistent and appropriate protocol to ensure that the assumed 10% efficiency improvement stipulated in the TRM is realized. To this end, evaluation team staff will coordinate concurrent visits with randomly chosen trade allies that conduct AC tune ups.

4.3.3 Program Sampling

The sampling will be sufficient to determine this program's gross impact with +/- 15% relative precision at the 85% confidence level.

The sampling approach for this program is batch-wise stratified random sampling on a quarterly basis. Due to the relatively small number of anticipated ground source heat pumps, it is expected that two strata – heat pumps and CACs – will suffice. The measures within each stratum can include tune-ups or unit replacements.

4.3.4 Process Evaluation

Process evaluation activities in PY3 will focus on the customer experience including awareness, satisfaction, and the program's influence on decision making process.

4.3.5 Program Partners and Trade Allies

Honeywell is the CSP for the West Penn Power HVAC program for residential customers. Honeywell maintains a contractor network to support this program.

4.3.6 Program Finances

A summary of the project finances are presented in Table 4-3.

Table 4-3: Summary of Residential Energy Efficient HVAC Equipment Program Finances: TRC Test²⁰

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 47,898	\$ 151,250	\$ 505,050
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	Subtotal EDC Incentive Costs	\$ 47,898	\$ 151,250	\$ 505,050
B.1	Design & Development	\$ 711	\$ 3,880	\$ 122,850
B.2	Administration	\$ 7,988	\$ 18,639	\$ 129,846
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 2,497	\$ 16,832	\$ 167,995
B.5	Technical Assistance	\$ 19,022	\$ 55,257	\$ 190,779
B	Subtotal EDC Implementation Costs	\$ 30,218	\$ 94,608	\$ 611,470
C	EDC Evaluation Costs	\$ 8,617	\$ 35,041	\$ 102,257
D	SWE Audit Costs			
E	Participant Costs			
	Total Costs	\$ 86,733	\$ 280,899	\$ 1,218,777
F	Annualized Avoided Supply Costs			
G	Lifetime Avoided Supply Costs			
	Total Lifetime Economic Benefits			
	Portfolio Benefit-to-Cost Ratio			
NOTES:				
(1) Residential Energy Efficient HVAC Equipment Program was previously called Residential Whole Home Appliance Efficiency Program. This program includes PYTD and CPITD costs for all of the previously reported HVAC appliances with the exception of the Hot Water Heater Measure which is currently being reported under the Residential Energy Efficient Products Program.				

²⁰ Definitions for terms in following table are subject to TRC Order.

4.4 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 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.

4.4.1 Program Logic

This program provides consumer education through generic energy savings tips combined with information customized to a specific dwelling based on self-reported information or by a trained auditor.

For the Residential Whole Building Comprehensive audit, BPI-certified contractors, including community based organizations delivering the WARM program would implement the program. Program services are coordinated by a national vendor who would support development and delivery of information and related services to customers.

The Behavior Modification and Education portion of this program is coordinated by a national vendor who supports development and delivery of information and services to customers.

4.4.2 Program M&V Methodology

Gross Impact Analysis for the Energy Conservation Kit Contents

Customers will receive one of two separate energy conservation kits based on their hot water fuel source. The kit provided to customers with electric water heating consists of compact fluorescent light bulbs (CFLs), LED night lights, aerators and aerator adapters, a furnace whistle, “smart” power strips, and a low flow showerhead. The kit provided to customers with non-electric water heating consists of CFLs, specialty dimmable CFLs, LED night lights, a furnace whistle, and “smart” power strips.

In evaluating the gross impact analysis for the energy conservation kits, two items must be determined:

1. The average energy savings and demand reduction for the kit elements that are installed; and,
2. The installation rate for the various kit elements.

The first item has been determined through participation in technical working groups held by the PA Statewide Evaluator. The expected energy savings and demand reduction for each kit element has been established through a combination of engineering calculations and literature review. The partially deemed savings protocols for the kit contents are expected to be incorporated into the PA TRM.

The second item, installation rates, are determined through a combination of on-site visits and online surveys, except for CFLs which are given a “deemed” installation rate of 0.84. For a particular site in a sample, the installation rate for each kit element takes on a binary value of 1, if the element is installed in accordance to the principles that define that element as an energy efficiency measure, and otherwise. In particular, faucet aerators are only counted as “installed” if they are installed in a home that has electric water heating. Smart power strips are counted as “installed” if: (1) there are appliances plugged into the “controlled” sockets that are turned on and off by the smart strip; and (2) an appliance that is not uniformly on is installed in the “master” socket.

The energy conservation kits are mailed to the Pennsylvania address on record for those ratepayers who complete the on-line energy audit questionnaire. Shipment tracking logs are used to verify the quantity of the kits mailed and “returns” due to wrong address that are sent back to the warehouse are not counted. Duplicate shipments to the same account number are also not counted. The online survey instrument that was used to verify that the shipped energy conservation kits were actually installed asks a series of questions that determine how many of each item was installed and where each item was installed. The accuracy of the online survey instrument was verified through on-site data collection activities of a separate sample of the online kit recipients.

Gross Impact Analysis for the Walk-Through Audits

The items that are installed during the walk-through visits include a variable quantity of conservation kit items, and other low-cost measures to be determined or judged as appropriate by the auditor. Most of the energy efficiency measures distributed in the walk-through audits have energy savings protocols that are in the PA TRM. The energy savings are determined by counting the number of each item installed by each contractor. These counts are checked for those measures which only have savings in homes with electric water heating. During the remaining implementation period, the savings will be further verified through a telephone survey effort focusing on the installation rates. A sub-sample of the survey respondents will be selected for on-site data verification activities.

Gross Impact Analysis for the Walk-Through Audits

The gross impact analysis has three components:

1. Verify that a sample of participant homes are being appropriately evaluated for program benefits with accurate pre- and post-upgrade diagnostic tests and to verify estimates of savings are performed in accordance with the TRM,
2. Verify the rate of participant homes to install and continue to use the program induced low- and medium-cost upgrades,
3. Determine the savings achieved through the comprehensive residential upgrade program.

Following significant levels of participation in the program (i.e. over approximately 30 participants), additional verification work will be performed. First, the energy savings of the program will be determined through an exploratory billing analysis. For the exploratory billing analysis to occur, monthly billing data will be required for both participants and non-participants.

If the exploratory billing analysis is not possible, the energy impacts will be determined using an engineering analysis. The baseline and as-built performance of each sample participant home will be determined by obtaining the original electronic data file from the energy auditor's simulation software and updating it to match the pre-existing and as-built conditions observed during the on-site data collection and monitoring visit. If necessary, the simulation software can be calibrated to monthly usage data obtained from customer bills.

A combined telephone and field survey of the sample will verify participation rates, if the home is occupied or not, to verify heating fuel type and outside unit air conditioner/heat pump efficiency, and rate of referral to other rebate programs. The energy savings and demand reductions for any energy efficiency components not incorporated into the comprehensive building simulation model and any measures installed through the other residential rebate programs will be determined based upon the methods outlined in those programs.

4.4.3 Program Sampling

This will be determined at the close of PY3 fourth quarter based upon participation in program components.

4.4.4 Process Evaluation

Process evaluation activities in PY3 will focus on the customer experience including awareness, satisfaction, and the program's influence on decision making process.

4.4.5 Program Partners and Trade Allies

Aclara provides the on-line audit tool. Power Direct is administering the CFL Opt-in initiative.

Honeywell is the CSP for the walk through audit and whole house program which is part of the Home Performance Program. Honeywell has a contract with PSD to oversee and train contractors for this part of the program. Honeywell is also the CSP for the behavior management program. They have a contract with Opower to administer this initiative.

4.4.6 Program Finances

A summary of the project finances are presented in Table 4-4.

Table 4-4: Summary of Residential Home Performance Program Finances: TRC Test²¹

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 491,820	\$ 4,833,037	\$ 5,379,058
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	Subtotal EDC Incentive Costs	\$ 491,820	\$ 4,833,037	\$ 5,379,058
B.1	Design & Development	\$ 5,022	\$ 8,191	\$ 134,960
B.2	Administration	\$ 25,204	\$ 81,143	\$ 197,968
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 281	\$ 4,512	\$ 726,310
B.5	Technical Assistance	\$ 82,836	\$ 1,763,279	\$ 1,969,361
B	Subtotal EDC Implementation Costs	\$ 113,343	\$ 1,857,125	\$ 3,028,599
C	EDC Evaluation Costs	\$ 6,804	\$ 60,956	\$ 143,265
D	SWE Audit Costs			
E	Participant Costs			
	Total Costs	\$ 611,967	\$ 6,751,118	\$ 8,550,922
F	Annualized Avoided Supply Costs			
G	Lifetime Avoided Supply Costs			
	Total Lifetime Economic Benefits			
	Portfolio Benefit-to-Cost Ratio			
NOTES:				
(1) The Residential Home Performance Program includes all measures previously reported under this program except for certain measures under Consumer Efficiency measure which are currently being reported under the Residential Energy Efficient Products Program.				

²¹ Definitions for terms in following table are subject to TRC Order.

4.5 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.

As of 2/29/2012, there were 19,507 customers enrolled in the program. Program events are projected to begin in June and run through September of 2012.

4.5.1 Program Logic

This program relies upon the installation of a smart meter at participating customer residences.

4.5.2 Program M&V Methodology

In development.

4.5.3 Program Sampling

In development.

4.5.4 Process Evaluation

In development.

4.5.5 Program Partners and Trade Allies

Not applicable.

4.5.6 Program Finances

A summary of the project finances are presented in Table 4-5.

Table 4-5: Summary of Residential Critical Peak Rebate (CPR) Program Finances: TRC Test

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ -	\$ -	\$ -
A.2	EDC Incentives to Trade Allies			
A	Subtotal EDC Incentive Costs	\$ -	\$ -	\$ -
B.1	Design & Development	\$ 473	\$ 3,642	\$ 6,402
B.2	Administration	\$ 13,844	\$ 35,183	\$ 63,325
B.3	Management			
B.4	Marketing	\$ 7,034	\$ 114,266	\$ 167,148
B.5	Technical Assistance	\$ (3,482)	\$ 7,057	\$ 27,913
B	Subtotal EDC Implementation Costs	\$ 17,869	\$ 160,148	\$ 264,788
C	EDC Evaluation Costs	\$ -	\$ 8,762	\$ 15,779
D	SWE Audit Costs			
E	Participant Costs			
	Total Costs	\$ 17,869	\$ 168,910	\$ 280,567
F	Annualized Avoided Supply Costs			
G	Lifetime Avoided Supply Costs			
	Total Lifetime Economic Benefits			
	Portfolio Benefit-to-Cost Ratio			
NOTES:				

4.6 Limited Income Energy Efficiency Program (LIEEP)

This program is an expansion of, and enhancement to the existing comprehensive Low-Income Usage Reduction Program, that will provide additional electric usage savings measures and services to income-eligible customers. In addition, energy savings kits will be provided when customers do not accept in-home services and/or when their electric use is too low to qualify for other low income program services or in other situations that are identified to provide additional measure and obtain additional energy savings.

4.6.1 Program Logic

This program is designed to provide additional energy savings measures and whole house services to additional low income households. Program services are delivered by CSPs, Company staff, and existing LIURP community based organizations and private contractors.

4.6.2 Program M&V Methodology

In PY3, this program is being evaluated under its prior program name (Residential Low Income Home Performance Check-Up Audit & Appliance Replacement Program) and design. A telephone survey of program participants in PY3 (June 1, 2011) through quarter 2 (November 30, 2011) will be conducted to verify the installation of measures reported. Additionally, the energy savings and demand reduction calculations will be reviewed.

4.6.3 Program Sampling

The effort will target 105 completed phone surveys: 35 audit and installed measures as part of a kit only recipients, 35 audit, measures from the kit and appliance recipients, and 35 appliance only recipients. The surveys will verify receipt of audit measures and appliance measures as well as their installation and use. This will produce a level of precision of 90/10 at each of these measure levels.

4.6.4 Process Evaluation

A comprehensive process evaluation was recently completed for the program in PY2. Therefore, the PY3 process evaluation will be more targeted, collecting key process evaluation information on the participating customer surveys to learn about customer experiences and satisfaction participating in the program and to understand their level of interaction with the auditors, what they learned, and actions taken as a result of the experience.

4.6.5 Program Partners and Trade Allies

Not applicable.

4.6.6 Program Finances

A summary of the project finances are presented in Table 4-6.

Table 4-6: Summary of Limited Income Energy Efficiency Program (LIEEP) Finances: TRC Test

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 1,034,539	\$ 3,322,985	\$ 6,192,344
A.2	EDC Incentives to Trade Allies			
A	Subtotal EDC Incentive Costs	\$ 1,034,539	\$ 3,322,985	\$ 6,192,344
B.1	Design & Development	\$ 2,148	\$ 5,317	\$ 40,142
B.2	Administration	\$ 21,223	\$ 63,020	\$ 280,201
B.3	Management			
B.4	Marketing	\$ 1,584	\$ 4,877	\$ 15,698
B.5	Technical Assistance	\$ 57,650	\$ 272,264	\$ 615,790
B	Subtotal EDC Implementation Costs	\$ 82,605	\$ 345,478	\$ 951,831
C	EDC Evaluation Costs	\$ 2,891	\$ 11,632	\$ 46,244
D	SWE Audit Costs			
E	Participant Costs			
	Total Costs	\$ 1,120,035	\$ 3,680,095	\$ 7,190,419
F	Annualized Avoided Supply Costs			
G	Lifetime Avoided Supply Costs			
	Total Lifetime Economic Benefits			
	Portfolio Benefit-to-Cost Ratio			
NOTES:				
(1) Limited Income Energy Efficiency (LIEEP) Program was previously called Residential Low Income Home Performance Check-Up Audit & Appliance Replacement Program. This program includes PYTD and CPITD costs for all previously reported costs for this program, as well as, the CPITD costs from the former Residential Low Income Room Air Conditioner Replacement Program.				

4.7 Joint Utility Usage Management Program

This program is an expansion of, and enhancement to the existing comprehensive Low-Income Usage Reduction Program (LIURP) that will provide additional electric energy savings measures and services to income-eligible customers through partnerships with gas utilities and the DCED Weatherization Assistance Program. In addition, energy savings kits will be provided when customers do not accept in-home services and/or when their electric use 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.

4.7.1 Program Logic

This program is designed to provide additional energy savings measures and whole house services to additional low income households through partnerships with gas utilities and the DCED Weatherization Assistance Program. Program services are delivered by CSPs, Company staff, and existing LIURP community based organizations and private contractors.

4.7.2 Program M&V Methodology

In PY3, this program is being evaluated under its prior program design which included energy savings measures installed as part of kits. The amended plan program tracks measures installed in the home (no longer part of a kit—just installed as necessary) and kits are shipped to customers as noted above. A telephone survey of program participants in PY3 (June 1, 2011) through quarter 2 (November 30, 2011) will be conducted to verify the installation of measures reported. Additionally, the energy savings and demand reduction calculations will be reviewed.

4.7.3 Program Sampling

Due to the low program participation, the effort will target a census of participating customers that received services through the program. A total of 104 households will be included. The households will be stratified by those that received the audit and measures installed as part of a kit; the audit, measures from the kit, and appliances; and appliances only.

4.7.4 Process Evaluation

A comprehensive process evaluation was recently completed for the program in PY2. Therefore, the PY3 process evaluation will be more targeted, collecting key process evaluation information on the participating customer surveys to learn about customer experiences and satisfaction participating in the program and to understand their level of interaction with the auditors, what they learned, and actions taken as a result of the experience. Additional process activities planned include tracking system review (provided by Dollar Energy).

4.7.5 Program Partners and Trade Allies

Not applicable.

4.7.6 Program Finances

A summary of the project finances are presented in Table 4-7.

Table 4-7: Summary of Joint Utility Usage Management Program Finances: TRC Test

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 33,371	\$ 202,874	\$ 378,668
A.2	EDC Incentives to Trade Allies			
A	Subtotal EDC Incentive Costs	\$ 33,371	\$ 202,874	\$ 378,668
B.1	Design & Development	\$ 1,341	\$ 4,510	\$ 24,740
B.2	Administration	\$ 12,568	\$ 45,985	\$ 159,921
B.3	Management			
B.4	Marketing	\$ 1,421	\$ 5,030	\$ 13,154
B.5	Technical Assistance	\$ 21,795	\$ 161,140	\$ 267,215
B	Subtotal EDC Implementation Costs	\$ 37,125	\$ 216,665	\$ 465,030
C	EDC Evaluation Costs	\$ 4,243	\$ 14,874	\$ 47,708
D	SWE Audit Costs			
E	Participant Costs			
	Total Costs	\$ 74,739	\$ 434,413	\$ 891,406
F	Annualized Avoided Supply Costs			
G	Lifetime Avoided Supply Costs			
	Total Lifetime Economic Benefits			
	Portfolio Benefit-to-Cost Ratio			
NOTES:				

4.8 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.

4.8.1 Program Logic

The program is designed to reduce the first-cost of high-efficiency equipment thereby encouraging the adoption of this equipment in lieu of standard at the end-of-the-useful-life measures, or as early replacement. The savings and budget from the Energy Audit and Technical Assessment Program will be combined with this program for reporting purposes. Incentives are provided to offset a portion of the incremental technology costs (“capital costs”) of high efficiency equipment as well as technical support when needed.

Incentives will be set at a schedule of payments per unit to address the incremental cost of commercially available energy efficient technology for each equipment category, when compared to the commonly available replacement. Custom measures will be rebated based upon an analysis of potential energy savings on a case by case basis.

4.8.2 Program M&V Methodology

This program implements both custom measures and prescriptive measures. The impact evaluation categorizes all measures rebated under the C/I, and Governmental/Non-Profit programs as either custom or prescriptive. As a first step, then, the measures rebated under this program are combined with either the custom or prescriptive populations of measures. The M&V methodologies for each population are briefly described below.

Custom Measures

Custom measures are evaluated according to the custom measures protocol specified in the PA Statewide Evaluator’s Audit Plan. A custom measure protocol is created for each new custom measure. The protocol, once reviewed and accepted by the Statewide Evaluator, will be used to determine both

ex-ante and ex-post savings²². In most cases, a site visit will be required to gather data, either by inspection or monitoring, to inform the calculations in the custom measure protocol.

Prescriptive Measures

Prescriptive measures for the C/I sector are typically partially deemed according to protocols in the PA TRM. The impact evaluation activities for such measures involve on-site inspections to verify that the measures are installed and commercially operable, and that the associated energy savings and demand reductions are calculated appropriately according to the relevant protocol in the PA TRM.

4.8.3 Program Sampling

Custom Measures

For custom measures, the general rule is that the census of projects is evaluated. However, for specific homogenous populations (e.g. one particular ESCO is implementing the same measure on 11 branches of a chain retailer), sampling will be employed if possible.

Prescriptive Measures

The sampling approach for this program is batch-wise stratified sampling. The samples are stratified by measure type (e.g. HVAC, Lighting) and by claimed energy savings. Batch-wise samples are drawn on a quarterly basis. The number of sample sites will be sufficient to achieve +/- 10% relative precision at the 90% confidence level separately for the prescriptive and the custom samples.

4.8.4 Process Evaluation

Process evaluations for the prior program design were conducted in PY2, therefore PY3 evaluation activities will be targeted only to specifically identified issues.

4.8.5 Program Partners and Trade Allies

Currently there are approximately 850 trade allies registered with West Penn Power.

Trade Allies include, but not limited too: equipment vendors (lighting/HVAC), Lighting and HVAC contractors and suppliers, compressed air vendors, contractors, energy service companies, value added resellers, manufacturer representatives, and original equipment manufacturers.

4.8.6 Program Finances

A summary of the project finances are presented in Table 4-8.

²² The impact evaluation team may determine savings that differ from the ex-ante calculations – even while using the same protocol – if the on-site data collected for impact evaluation purposes is inconsistent with the assumptions and corresponding values of parameters used in the ex-ante energy savings estimation.

Table 4-8: Summary of Commercial & Industrial Equipment Program – Small Finances: TRC Test²³

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 358,129	\$ 881,932	\$ 1,370,147
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	Subtotal EDC Incentive Costs	\$ 358,129	\$ 881,932	\$ 1,370,147
B.1	Design & Development	\$ 6,366	\$ 15,871	\$ 308,424
B.2	Administration	\$ 47,886	\$ 195,333	\$ 853,526
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 79,131	\$ 148,816	\$ 216,714
B.5	Technical Assistance	\$ (313)	\$ 420,859	\$ 770,302
B	Subtotal EDC Implementation Costs	\$ 133,070	\$ 780,879	\$ 2,148,966
C	EDC Evaluation Costs	\$ 7,096	\$ 134,485	\$ 369,183
D	SWE Audit Costs			
E	Participant Costs			
	Total Costs	\$ 498,295	\$ 1,797,296	\$ 3,888,296
F	Annualized Avoided Supply Costs			
G	Lifetime Avoided Supply Costs			
	Total Lifetime Economic Benefits			
	Portfolio Benefit-to-Cost Ratio			
NOTES:				
(1) Commercial & Industrial Equipment - Small Program includes PYTD and CPITD costs which were previously reported under the Commercial HVAC Efficiency Program, Commercial Products Efficiency Program and Custom Technology Applications Program.				

²³ Definitions for terms in following table are subject to TRC Order.

4.9 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.

4.9.1 Program Logic

This program relies upon the installation of a smart meter to collect the customer's hourly energy consumption.

4.9.2 Program M&V Methodology

In development.

4.9.3 Program Sampling

In development.

4.9.4 Process Evaluation

In development.

4.9.5 Program Partners and Trade Allies

Not applicable.

4.9.6 Program Finances

A summary of the project finances are presented in Table 4-9.

Table 4-9: Summary of Time of Use (TOU) with Critical Peak Pricing (CPP) Rate Finances: TRC Test

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ -	\$ -	\$ -
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	Subtotal EDC Incentive Costs	\$ -	\$ -	\$ -
B.1	Design & Development	\$ 281	\$ 3,449	\$ 6,021
B.2	Administration	\$ 6,145	\$ 9,413	\$ 37,584
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 2,296	\$ 3,187	\$ 16,939
B.5	Technical Assistance	\$ (1,945)	\$ 3,984	\$ 25,725
B	Subtotal EDC Implementation Costs	\$ 6,777	\$ 20,033	\$ 86,269
C	EDC Evaluation Costs	\$ 1,204	\$ 7,066	\$ 12,012
D	SWE Audit Costs			
E	Participant Costs			
	Total Costs	\$ 7,981	\$ 27,099	\$ 98,281
F	Annualized Avoided Supply Costs			
G	Lifetime Avoided Supply Costs			
	Total Lifetime Economic Benefits			
	Portfolio Benefit-to-Cost Ratio			
NOTES:				

4.10 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.

4.10.1 Program Logic

The program is designed to reduce the first-cost of high-efficiency equipment thereby encouraging the adoption of this equipment in lieu of standard at the end-of-the-useful-life measures, or as early replacement. The savings and budget from the Energy Audit and Technical Assessment Program will be combined with this program for reporting purposes. Incentives are provided to offset a portion of the incremental technology costs (“capital costs”) of high efficiency equipment as well as technical support when needed.

Incentives will be set at a schedule of payments per unit to address the incremental cost of commercially available energy efficient technology for each equipment category, when compared to the commonly available replacement. Custom measures will be rebated based upon an analysis of potential energy savings on a case by case basis.

4.10.2 Program M&V Methodology

This program implements both custom measures and prescriptive measures. The impact evaluation categorizes all measures rebated under the C/I, and Governmental/Non-Profit programs as either custom or prescriptive. As a first step, then, the measures rebated under this program are combined with either the custom or prescriptive populations of measures. The M&V methodologies for each population are briefly described below.

Custom Measures

Custom measures are evaluated according to the custom measures protocol specified in the PA Statewide Evaluator’s Audit Plan. A custom measure protocol is created for each new custom measure. The protocol, once reviewed and accepted by the Statewide Evaluator, will be used to determine both ex-ante and ex-post savings²⁴. In most cases, a site visit, will be required to gather data, either by inspection or monitoring, to inform the calculations in the custom measure protocol.

Prescriptive Measures

Prescriptive measures for the C/I sector are typically partially deemed according to protocols in the PA TRM. The impact evaluation activities for such measures involve on-site inspections to verify that the

²⁴ The impact evaluation team may determine savings that differ from the ex-ante calculations – even while using the same protocol – if the on-site data collected for impact evaluation purposes is inconsistent with the assumptions and corresponding values of parameters used in the ex-ante energy savings estimation.

measures are installed and commercially operable, and that the associated energy savings and demand reductions are calculated appropriately according to the relevant protocol in the PA TRM.

4.10.3 Program Sampling

Custom Measures

For custom measures, the general rule is that the census of projects is evaluated. However, for specific, homogenous populations (e.g. one particular ESCO is implementing the same measure on 11 branches of a chain retailer), sampling will be employed if possible.

Prescriptive Measures

The sampling approach for this program is batch-wise stratified sampling. The samples are stratified by measure type (e.g. HVAC, Lighting) and by claimed energy savings. Batch-wise samples are drawn on a quarterly basis. The number of sample sites will be sufficient to achieve +/- 10% relative precision at the 90% confidence level separately for the prescriptive and the custom samples. Based on the results of program year's evaluation, and on the current list of rebate applications, approximately 30 on-site will be required to achieve the desired relative precision.

4.10.4 Process Evaluation

Process evaluations for the prior program design were conducted in PY2, therefore PY3 evaluation activities will be targeted only to specifically identified issues.

4.10.5 Program Partners and Trade Allies

Currently there are approximately 850 trade allies registered with West Penn Power.

Trade Allies include, but not limited too: equipment vendors (lighting/HVAC), Lighting and HVAC contractors and suppliers, compressed air vendors, contractors, energy service companies, value added resellers, manufacturer representatives, and original equipment manufacturers.

4.10.6 Program Finances

A summary of the project finances are presented in Table 4-10.

Table 4-10: Summary of Commercial & Industrial Equipment Program - Large Finances: TRC Test²⁵

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 538,409	\$ 1,473,508	\$ 1,876,496
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	Subtotal EDC Incentive Costs	\$ 538,409	\$ 1,473,508	\$ 1,876,496
B.1	Design & Development	\$ 2,707	\$ 5,875	\$ 667,364
B.2	Administration	\$ 26,263	\$ 119,638	\$ 564,806
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 59,069	\$ 91,229	\$ 119,996
B.5	Technical Assistance	\$ 16,759	\$ 342,948	\$ 1,068,465
B	Subtotal EDC Implementation Costs	\$ 104,798	\$ 559,690	\$ 2,420,631
C	EDC Evaluation Costs	\$ (561)	\$ 40,487	\$ 79,249
D	SWE Audit Costs			
E	Participant Costs			
	Total Costs	\$ 642,646	\$ 2,073,685	\$ 4,376,376
F	Annualized Avoided Supply Costs			
G	Lifetime Avoided Supply Costs			
	Total Lifetime Economic Benefits			
	Portfolio Benefit-to-Cost Ratio			
NOTES:				
(1) Commercial & Industrial Equipment - Large Program includes PYTD and CPITD costs which were previously reported under the Custom Applications Program and CPITD costs which were previously reported under the former Commercial & Industrial Drives Program.				

²⁵ Definitions for terms in following table are subject to TRC Order.

4.11 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.

4.11.1 Program Logic

The program is designed to reduce the demand consumption of the small and large commercial and industrial and government/non-profit sectors. The Company will provide all technical assistance, project management and marketing activities to support the program.

4.11.2 Program M&V Methodology

In development.

4.11.3 Program Sampling

In development.

4.11.4 Process Evaluation

In development.

4.11.5 Program Partners and Trade Allies

Not Applicable.

4.11.6 Program Finances

A summary of the project finances are presented in Table 4-11.

Table 4-11: Summary of Customer Load Response Program Finances: TRC Test²⁶

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ -	\$ 14,831	\$ 14,831
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	Subtotal EDC Incentive Costs	\$ -	\$ 14,831	\$ 14,831
B.1	Design & Development	\$ 567	\$ 3,735	\$ 87,895
B.2	Administration	\$ 15,219	\$ 35,326	\$ 65,025
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 54	\$ 399	\$ 2,097
B.5	Technical Assistance	\$ (5,849)	\$ 12,659	\$ 43,400
B	Subtotal EDC Implementation Costs	\$ 9,991	\$ 52,119	\$ 198,417
C	EDC Evaluation Costs	\$ -	\$ 3,058	\$ 12,240
D	SWE Audit Costs			
E	Participant Costs			
	Total Costs	\$ 9,991	\$ 70,008	\$ 225,488
F	Annualized Avoided Supply Costs			
G	Lifetime Avoided Supply Costs			
	Total Lifetime Economic Benefits			
	Portfolio Benefit-to-Cost Ratio			
NOTES:				

²⁶ Definitions for terms in following table are subject to TRC Order.

4.12 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 than 300 kW where a measurement and verification protocol is approved by the Company in advance of program enrollment.

4.12.1 Program Logic

The program is focused on reducing demand in the small and large commercial and industrial and government/non-profit sectors by deploying customer load resources from load curtailment strategies provided by PJM Curtailment Service Providers (PJM CSPs). The program contains both mandatory and voluntary options for PJM CSPs to provide as much flexibility in meeting load reduction obligations as possible.

4.12.2 Program M&V Methodology

In development.

4.12.3 Program Sampling

In development.

4.12.4 Process Evaluation

In development.

4.12.5 Program Partners and Trade Allies

Not Applicable.

4.12.6 Program Finances

A summary of the project finances are presented in Table 4-12.

Table 4-12: Summary of Customer Resources Demand Response Program Finances: TRC Test²⁷

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ -	\$ -	\$ -
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	Subtotal EDC Incentive Costs	\$ -	\$ -	\$ -
B.1	Design & Development	\$ 1,304	\$ 4,472	\$ 6,664
B.2	Administration	\$ 15,859	\$ 37,214	\$ 69,640
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 77	\$ 46,411	\$ 48,109
B.5	Technical Assistance	\$ 107,024	\$ 348,946	\$ 370,687
B	Subtotal EDC Implementation Costs	\$ 124,264	\$ 437,043	\$ 495,100
C	EDC Evaluation Costs	\$ -	\$ 3,243	\$ 16,029
D	SWE Audit Costs			
E	Participant Costs			
	Total Costs	\$ 124,264	\$ 440,286	\$ 511,129
F	Annualized Avoided Supply Costs			
G	Lifetime Avoided Supply Costs			
	Total Lifetime Economic Benefits			
	Portfolio Benefit-to-Cost Ratio			
NOTES:				

²⁷ Definitions for terms in following table are subject to TRC Order.

4.13 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.

4.13.1 Program Logic

The program is focused on reducing demand in the small and large commercial and industrial and government/non-profit sectors by deploying customer "nonutility" generation resources. The DG manager is responsible for providing all services to operate, maintain, fuel, and dispatch generators enrolled in the program.

4.13.2 Program M&V Methodology

In development.

4.13.3 Program Sampling

In development.

4.13.4 Process Evaluation

In development.

4.13.5 Program Partners and Trade Allies

Not Applicable.

4.13.6 Program Finances

A summary of the project finances are presented in Table 4-13.

Table 4-13: Summary of Distributed Generation Program Finances: TRC Test²⁸

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ -	\$ -	\$ -
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	Subtotal EDC Incentive Costs	\$ -	\$ -	\$ -
B.1	Design & Development	\$ 252	\$ 3,420	\$ 5,041
B.2	Administration	\$ 2,198	\$ 4,543	\$ 37,716
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 16	\$ 111	\$ 1,809
B.5	Technical Assistance	\$ (1,481)	\$ 3,245	\$ 24,986
B	Subtotal EDC Implementation Costs	\$ 985	\$ 11,319	\$ 69,552
C	EDC Evaluation Costs	\$ -	\$ -	\$ -
D	SWE Audit Costs			
E	Participant Costs			
	Total Costs	\$ 985	\$ 11,319	\$ 69,552
F	Annualized Avoided Supply Costs			
G	Lifetime Avoided Supply Costs			
	Total Lifetime Economic Benefits			
	Portfolio Benefit-to-Cost Ratio			
NOTES:				

²⁸ Definitions for terms in following table are subject to TRC Order.

4.14 Conservation Voltage Reduction (CVR) Program

The CVR Program will target residential and non-residential customers on 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.

This program is still pending Commission approval.

4.14.1 Program Logic

Not applicable.

4.14.2 Program M&V Methodology

Not applicable.

4.14.3 Program Sampling

Not applicable.

4.14.4 Process Evaluation

Not applicable.

4.14.5 Program Partners and Trade Allies

Not applicable.

4.14.6 Program Finances

A summary of the project finances are presented in Table 4-14.

Table 4-14: Summary of Conservation Voltage Reduction (CVR) Program Finances: TRC Test

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ -	\$ -	\$ -
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	Subtotal EDC Incentive Costs	\$ -	\$ -	\$ -
B.1	Design & Development	\$ 138	\$ 138	\$ 138
B.2	Administration	\$ 2,818	\$ 2,818	\$ 2,818
B.3	Management			
B.4	Marketing	\$ 6	\$ 6	\$ 6
B.5	Technical Assistance	\$ 588	\$ 588	\$ 588
B	Subtotal EDC Implementation Costs	\$ 3,550	\$ 3,550	\$ 3,550
C	EDC Evaluation Costs	\$ -	\$ -	\$ -
D	SWE Audit Costs			
E	Participant Costs			
	Total Costs	\$ 3,550	\$ 3,550	\$ 3,550
F	Annualized Avoided Supply Costs			
G	Lifetime Avoided Supply Costs			
	Total Lifetime Economic Benefits			
	Portfolio Benefit-to-Cost Ratio			
NOTES:				

4.15 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 also 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 measures.

4.15.1 Program Logic

This program provides incentives to offset the incremental technology costs (“capital costs”) for energy efficient retrofit projects.

4.15.2 Program M&V Methodology

In PY3, this program is being evaluated under its prior program design. Efforts will include a combination of on-sites visits as well as participant phone surveys and energy savings calculations will be reviewed. The intent is to verify purchase and/or receipt and installation of measures.

4.15.3 Program Sampling

Prescriptive & Custom Measures

The impact evaluation sample for this program is subsumed into the sample for the C/I Equipment program. However, the program participants are pooled into a separate “Government/Non-Profit”

stratum. This stratum's impacts will be reported with +/- 15% relative precision at the 85% confidence level.

Street Lighting Measures

The sampling approach for this program is batch-wise stratified sampling, updated on a quarterly basis. The stratification is based on the total ex-ante kWh savings with municipal retrofit projects as sampling units. The number of sampled sites will be sufficient to quantify the energy savings and demand reduction with +/- 15% relative precision at the 85% confidence level.

4.15.4 Process Evaluation

Process evaluation activities will focus on the customer experience including awareness, satisfaction, and the program's influence on decision making process.

4.15.5 Program Partners and Trade Allies

Currently there are approximately 850 trade allies registered with West Penn Power.

Trade Allies include, but not limited too: equipment vendors (lighting/HVAC), Lighting and HVAC contractors and suppliers, compressed air vendors, contractors, energy service companies, value added resellers, manufacturer representatives, and original equipment manufacturers.

4.15.6 Program Finances

A summary of the project finances are presented in Table 4-15.

Table 4-15: Summary of Governmental and Institutional Program Finances: TRC Test²⁹

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 5,009	\$ 461,483	\$ 898,111
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	Subtotal EDC Incentive Costs	\$ 5,009	\$ 461,483	\$ 898,111
B.1	Design & Development	\$ 2,157	\$ 5,326	\$ 110,826
B.2	Administration	\$ 17,951	\$ 89,070	\$ 388,400
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 55,235	\$ 73,286	\$ 90,881
B.5	Technical Assistance	\$ 39,870	\$ 129,410	\$ 248,918
B	Subtotal EDC Implementation Costs	\$ 115,213	\$ 297,092	\$ 839,025
C	EDC Evaluation Costs	\$ 3,702	\$ 63,691	\$ 235,842
D	SWE Audit Costs			
E	Participant Costs			
	Total Costs	\$ 123,924	\$ 822,266	\$ 1,972,978
F	Annualized Avoided Supply Costs			
G	Lifetime Avoided Supply Costs			
	Total Lifetime Economic Benefits			
	Portfolio Benefit-to-Cost Ratio			
NOTES:				
(1) Governmental and Institutional Program was previously called Governmental/Non-Profit Lighting Efficiency Program. The program includes the PYTD and CPITD costs previously reported under this program, as well as, costs related to government entities which were formerly reported under the Custom Technology Applications Program, Custom Applications Program and Commercial Products Efficiency Program.				

²⁹ Definitions for terms in following table are subject to TRC Order.