

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

**For the period  
June 2011 to August 2011  
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
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 15<sup>th</sup>, 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, 2011<sup>1</sup>, and the Commission directive requiring EDC's to file quarterly reports for the first three quarters of each reporting year, the West Penn Power Company (WPP or Company) respectively submits this quarterly report documenting the progress and effectiveness of the EE&C accomplishments through the end of Program Year 3, Quarter 1.

### Compliance goal progress as of the end of the reporting period<sup>2</sup>:

#### Cumulative Portfolio Energy Impacts

- The CPITD reported gross energy savings is 146,090 MWh, of the 628,160 MWh May 31<sup>st</sup>, 2013 energy savings compliance target.
- The CPITD preliminary verified energy savings is 73,930 MWh.
- Achieved 23% of the 628,160 MWh May 31, 2013 energy savings compliance target on a gross basis, and 11.8% on a preliminary verified basis.

#### Portfolio Demand Reduction<sup>3</sup>

- The CPITD reported gross demand reduction is 19.9 MW.
- The CPITD preliminary verified demand reduction is 11.3 MW.
- Achieved 13% of the 157.3 MW May 31, 2013 demand reduction compliance target.

#### Low Income Sector

- There are 66,858 measures offered to the low-income sector, comprising 4% of the total measures offered.
- The CPITD reported gross energy savings for low-income sector programs is 9,089 MWh.
- The CPITD preliminary verified energy savings for low-income sector programs is 7,482 MWh.

#### Government and Non-Profit Sector

- The CPITD reported gross energy savings for government and non-profit sector programs is 20,630 MWh.<sup>4</sup>
- The CPITD preliminary verified energy savings for government and non-profit sector programs is 11,849 MWh.

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

<sup>2</sup> 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.

<sup>3</sup> Demand reduction to include both the demand savings from the installation of energy efficiency measures and the demand reduction associated with demand response programs.

<sup>4</sup> This includes Government and Non-Profit Sector customer participation in all C&I and Government and Non-Profit Sector Programs.

- Achieved 32% of the 63,997 MWh May 31, 2013 energy savings compliance target.<sup>5</sup>

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

- The PYTD reported gross energy savings is 49,923 MWh.
- The PYTD preliminary verified energy savings is 0 MWh.
- The PYTD reported gross demand reduction is 5.6 MW.
- The PYTD preliminary verified demand reduction 0 MW.
- The PYTD reported participation is 123,619.<sup>6</sup>

**Other Observations and Risks That May Affect Portfolio Success**

West Penn Power filed an amended plan on August 9, 2011<sup>7</sup> based upon knowledge the Company has learned during the first two years of implementation. The revised plan is pending approval before the Commission. Given that the proposed New Plan has several critical programmatic and funding enhancements, prompt Commission approval of the New Plan is needed as delays to moving forward will adversely affect West Penn Power's ability to meet its Act 129 demand and energy efficiency benchmarks.

One additional factor specific to West Penn Power that may also affect its ability to meet energy efficiency benchmarks is the 2% spending cap imposed by Act 129<sup>8</sup>. 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.

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.

Recently, the Commission recognized the need to establish a more expedited review process to approve minor EE&C Plan changes which allow EDCs to: i) eliminate a measure that is underperforming; ii) transfer funds from one measure or program within the same customer class; and iii) add or change the conditions of a measure (e.g. eligibility requirements; rebate structure or amount)<sup>9</sup>. Although the Company appreciates the Commission's efforts to shorten the approval process for certain changes to EE&C Plans, the Company believes that the lack of implementation flexibility to shift funds in a timely manner from under- to over-subscribed, cost-effective programs is adversely impacting the Company's EE&C strategies for compliance.

Additionally, given 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.

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<sup>5</sup> Reflects Government and Non-Profit Sector customer participation in Government and Non-Profit Sector Program only.

<sup>6</sup> CFL participants comprise 32,310 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.

<sup>7</sup> See Docket No. M-2009-2093218

<sup>8</sup> 66 Pa. C.S. § 2806.1(gB)(II).

<sup>9</sup> See Final Order, Docket No. M-2008-2069887, June 9, 2011.

Furthermore, the Company has a growing concern about the 4½% demand reduction target and feel the ability to achieve this target is at very high risk based on the magnitude specific to the top 100 hours, customer's willingness to participate as well as the need for generous financial incentives to encourage participation.

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 best approach for achieving future, aggressive 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.

### Portfolio M&V Status

West Penn Power contracted with an independent Evaluation, Measurement and Verification Team (led by Tetra Tech and supported by ADM Associates) to evaluate its energy efficiency and conservation (EE&C) programs portfolio. The Program Year 2010 (PY2) program evaluation efforts included process evaluations and impact evaluations for all programs. The Program Year 2011 (PY3) program evaluation efforts are in the planning stages.

## 1.1 Summary of Portfolio Impacts<sup>10</sup>

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

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

Impact Type	Total Energy Savings (MWh)	Total Demand Reduction (MW)
Reported Gross Impact: Incremental Quarterly	49,923	5.6
Reported Gross Impact: Program Year to Date	49,923	5.6
Reported Gross Impact: Cumulative Portfolio Inception to Date	146,090	19.9
Unverified Ex Post Savings	0	0.0
Estimated Impact: Projects in Progress	35,791	5.8
Estimated Impact: PYTD Total Committed	85,714	11.4
Preliminary PYTD Verified Impact <sup>[a]</sup>	0	0.0
Preliminary PYTD Net Impact <sup>[b]</sup>	0	0.0
<b>NOTES:</b>		
[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.		

<sup>10</sup> The PY2 3<sup>rd</sup> Quarter report includes WPP's September 10, 2010 Revised Amended Plan approved January 13, 2011 in all tables and figures. Programs removed or changed are identified within each pertinent Table.

A summary of total evaluation adjusted impacts for the portfolio is presented in Table 1-2.<sup>11</sup>

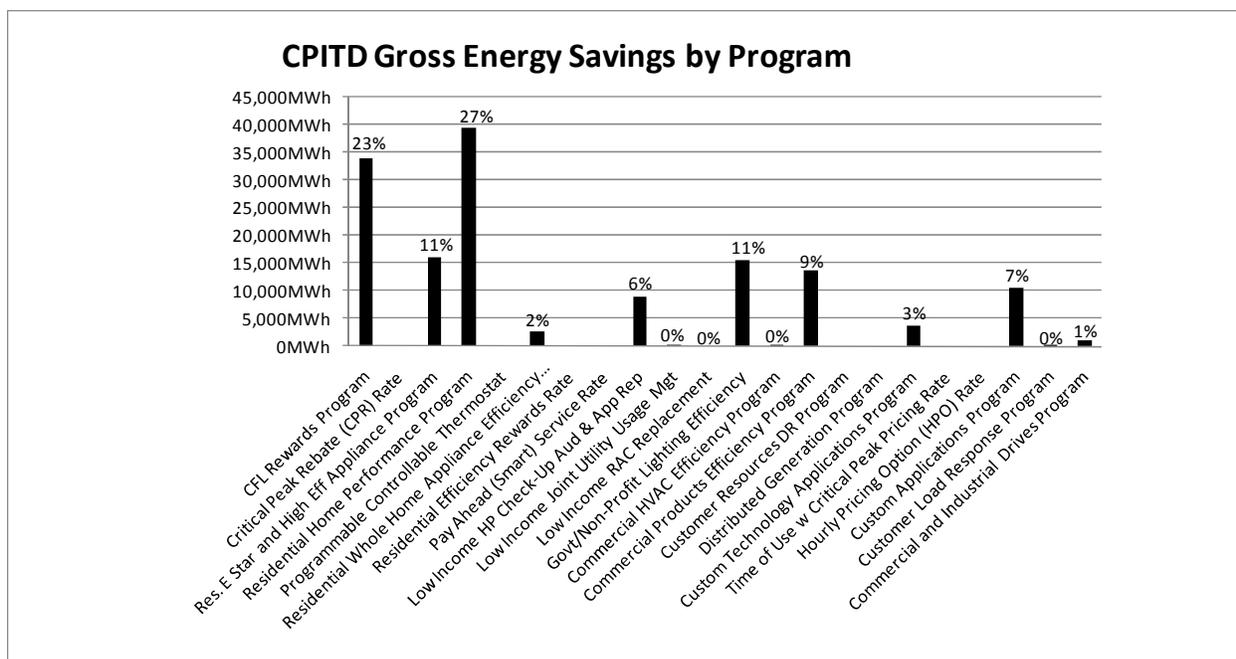
**Table 1-2: Verified Preliminary Portfolio Total Evaluation Adjusted Impacts through the End of the First Quarter, Program Year 3**

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

## 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 First Quarter, Program Year 3**



<sup>11</sup> Consistent with prior guidance from PUC Staff, this Report will not include information related to TRC Benefit-to-Cost Ratios.

A summary of energy impacts by program through the First 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 First Quarter, Program Year 3**

Program	Participants			Reported Gross Impact (MWh)		
	IQ	PYTD	CPITD	IQ	PYTD	CPITD
Compact Fluorescent Lighting (CFL) Rewards Program	32,310	32,310	195,725	5,097	5,097	34,029
Critical Peak Rebate (CPR) Rate						
Residential Energy Star and High Efficiency Appliance Program	6,986	6,986	35,609	3,005	3,005	16,173
Residential Home Performance Program	81,674	81,674	128,312	26,213	26,213	39,597
Programmable Controllable Thermostat (PCT) Program (removed from Plan)						
Residential Whole Home Appliance Efficiency Program (previously Residential HVAC Efficiency Program)	440	440	2,426	462	462	2,574
Residential Efficiency Rewards Rate (removed from Plan)						
Pay Ahead (Smart) Service Rate (removed from Plan)						
Residential Low Income Home Performance Check-Up Audit & Appliance Replacement Program	2,051	2,051	7,675	2,221	2,221	8,967
Residential Low Income Joint Utility Usage Management Program	31	31	151	39	39	122
Residential Low Income Room Air Conditioner Replacement Program (removed from Plan)						
Governmental/Non-Profit Lighting Efficiency Program	54	54	812	1,937	1,937	15,578
Commercial HVAC Efficiency Program	1	1	3	2	2	4
Commercial Products Efficiency Program (previously called Commercial Lighting Efficiency Program)	53	53	209	3,077	3,077	13,704
Customer Resources Demand Response Program						
Distributed Generation Program						
Custom Technology Applications Program	6	6	21	1,288	1,288	3,797
Time of Use (TOU) with Critical Peak Pricing Rate						
Hourly Pricing Option (HPO) Rate (removed from Plan)						
Custom Applications Program	13	13	22	6,583	6,583	10,573
Customer Load Response Program						
Commercial and Industrial Drives Program (added to Custom Technology Applications and Custom Applications Programs and removed as a stand-alone Program; however, will continue to report as a line item due to participation under stand-alone offering). Data reflects customer approved applications received prior to approval to decommission.	0	0	6	0	0	972
<b>TOTAL PORTFOLIO</b>	<b>123,619</b>	<b>123,619</b>	<b>370,971</b>	<b>49,923</b>	<b>49,923</b>	<b>146,090</b>
<b>NOTES: (1)</b> Absence of data indicates program has not been launched.						

**Table 1-4: EDC Reported Gross Energy Savings by Program through the First 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 (%)
Compact Fluorescent Lighting (CFL) Rewards Program	1	0	5,098	31,475	16%
Critical Peak Rebate (CPR) Rate				487	0%
Residential Energy Star and High Efficiency Appliance Program	175	0	3,180	17,718	18%
Residential Home Performance Program	0	0	26,213	21,136	124%
Programmable Controllable Thermostat (PCT) Program (removed from Plan)					
Residential Whole Home Appliance Efficiency Program (previously Residential HVAC Efficiency Program)	118	0	580	5,280	11%
Residential Efficiency Rewards Rate (removed from Plan)					
Pay Ahead (Smart) Service Rate (removed from Plan)					
Residential Low Income Home Performance Check-Up Audit & Appliance Replacement Program	0	0	2,221	963	231%
Residential Low Income Joint Utility Usage Management Program	0	0	39	3,342	1%
Residential Low Income Room Air Conditioner Replacement Program (removed from Plan)					
Governmental/Non-Profit Lighting Efficiency Program	2,575	0	4,513	9,379	48%
Commercial HVAC Efficiency Program	55	0	57	1,703	3%
Commercial Products Efficiency Program (previously called Commercial Lighting Efficiency Program)	4,660	0	7,737	93,777	8%
Customer Resources Demand Response Program				2,000	0%
Distributed Generation Program				350	0%
Custom Technology Applications Program	6,857	0	8,145	7,370	111%
Time of Use (TOU) with Critical Peak Pricing Rate				2,467	0%
Hourly Pricing Option (HPO) Rate (removed from Plan)					
Custom Applications Program	21,350	0	27,933	29,678	94%
Customer Load Response Program			0	1,050	0%
Commercial and Industrial Drives Program (added to Custom Technology Applications and Custom Applications Programs and removed as a stand-alone Program; however, will continue to report as a line item due to participation under stand-alone offering). Data reflects customer approved applications received prior to approval to decommission.					
<b>Total</b>	<b>35,791</b>	<b>0</b>	<b>85,714</b>	<b>228,175</b>	<b>38%</b>

**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 January 13, 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 First Quarter, Program Year 3**

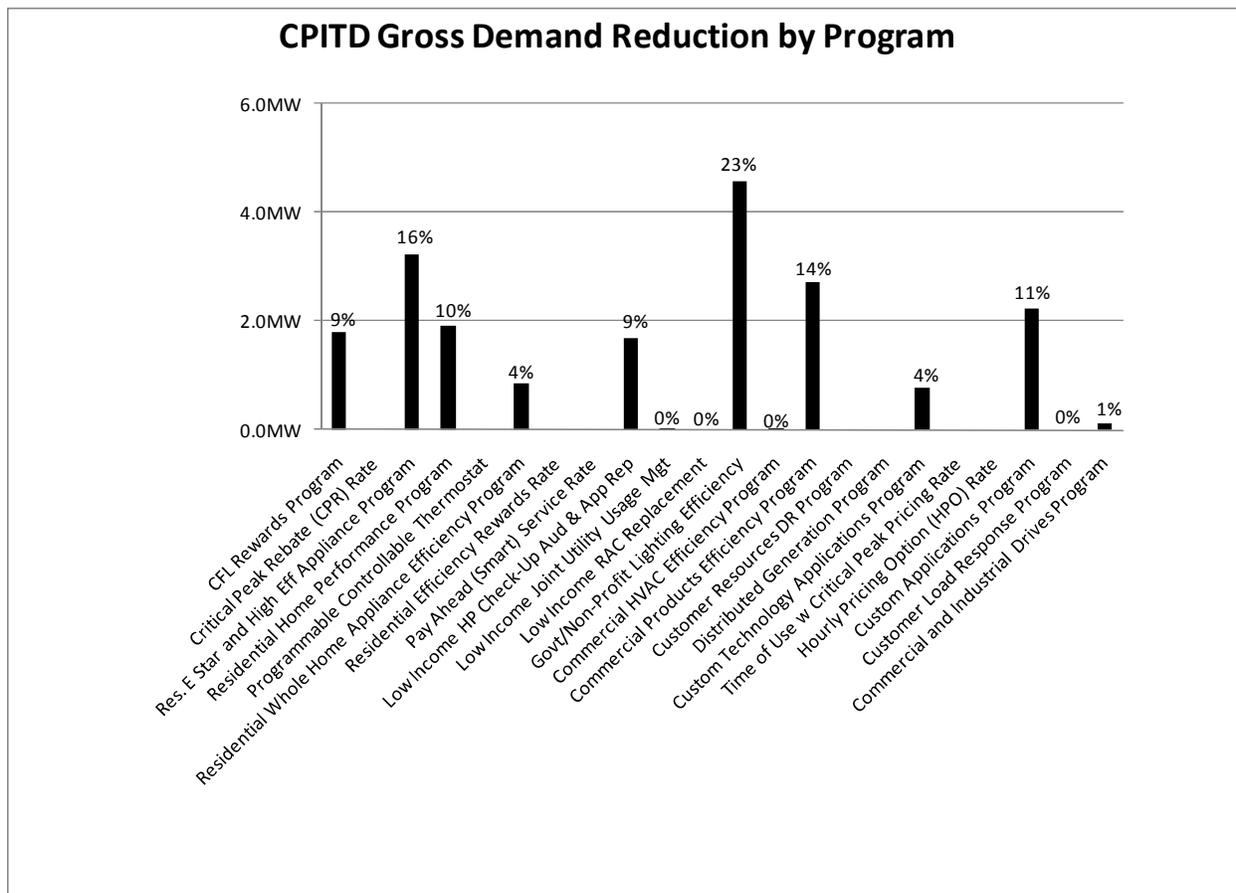
Program	PYTD Reported Gross Impact (MWh)	Preliminary Realization Rate	Preliminary PYTD Verified Impact (MWh)	Net-to-Gross Ratio	PYTD Net Impact (MWh)
Compact Fluorescent Lighting (CFL) Rewards Program	5,097				
Critical Peak Rebate (CPR) Rate					
Residential Energy Star and High Efficiency Appliance Program	3,005				
Residential Home Performance Program	26,213				
Programmable Controllable Thermostat (PCT) Program (removed from Plan)					
Residential Whole Home Appliance Efficiency Program (previously Residential HVAC Efficiency Program)	462				
Residential Efficiency Rewards Rate (removed from Plan)					
Pay Ahead (Smart) Service Rate (removed from Plan)					
Residential Low Income Home Performance Check-Up Audit & Appliance Replacement Program	2,221				
Residential Low Income Joint Utility Usage Management Program	39				
Residential Low Income Room Air Conditioner Replacement Program (removed from Plan)					
Governmental/Non-Profit Lighting Efficiency Program	1,937				
Commercial HVAC Efficiency Program	2				
Commercial Products Efficiency Program (previously called Commercial Lighting Efficiency Program)	3,077				
Customer Resources Demand Response Program					
Distributed Generation Program					
Custom Technology Applications Program	1,288				
Time of Use (TOU) with Critical Peak Pricing Rate					
Hourly Pricing Option (HPO) Rate (removed from Plan)					
Custom Applications Program	6,583				
Customer Load Response Program	0				
Commercial and Industrial Drives Program (added to Custom Technology Applications and Custom Applications Programs and removed as a stand-alone Program; however, will continue to report as a line item due to participation under stand-alone offering). Data reflects customer approved applications received prior to approval to decommission.	0				
<b>Total</b>	<b>49,923</b>				

**NOTES:** (1) Absence of data in PYTD Reported Gross Impact (MWh) column indicates program has not been launched.  
(2) The Realization Rate for the Refrigerator Rebate with Recycling and Freezer Rebate with Recycling were calculated separately to capture the distinct difference between these measures and the other measures within the Appliance Program.  
(3) The Programmable Thermostat measure did not have sufficient participation to warrant M&V through PY2 3Q; therefore, savings are excluded from the preliminary verified results.  
(4) Home Performance Program: Other includes the following; CFL Opt-In, CFL School Kits, JACO bulb distribution and UPMC Kit Mailings (See Section 4.4 for descriptions)

### 1.3 Summary of Demand Impacts by Program

A summary of the reported demand reduction by program is presented in Figure 1-2.<sup>12</sup>

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



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

<sup>12</sup> Absence of data indicates program has not been launched.

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

Program	Participants			Reported Gross Impact (MW)		
	IQ	PYTD	CPITD	IQ	PYTD	CPITD
Compact Fluorescent Lighting (CFL) Rewards Program	32,310	32,310	195,725	0.2	0.2	1.8
Critical Peak Rebate (CPR) Rate						
Residential Energy Star and High Efficiency Appliance Program	6,986	6,986	35,609	0.6	0.6	3.2
Residential Home Performance Program	81,674	81,674	128,312	1.2	1.2	1.9
Programmable Controllable Thermostat (PCT) Program (removed from Plan)						
Residential Whole Home Appliance Efficiency Program (previously Residential HVAC Efficiency Program)	440	440	2,426	0.1	0.1	0.9
Residential Efficiency Rewards Rate (removed from Plan)						
Pay Ahead (Smart) Service Rate (removed from Plan)						
Residential Low Income Home Performance Check-Up Audit & Appliance Replacement Program	2,051	2,051	7,675	0.5	0.5	1.7
Residential Low Income Joint Utility Usage Management Program	31	31	151	0.007	0.007	0.020
Residential Low Income Room Air Conditioner Replacement Program (removed from Plan)						
Governmental/Non-Profit Lighting Efficiency Program	54	54	812	0.6	0.6	4.6
Commercial HVAC Efficiency Program	1	1	3	0.0	0.0	0.0
Commercial Products Efficiency Program (previously called Commercial Lighting Efficiency Program)	53	53	209	0.6	0.6	2.7
Customer Resources Demand Response Program						
Distributed Generation Program						
Custom Technology Applications Program	6	6	21	0.3	0.3	0.8
Time of Use (TOU) with Critical Peak Pricing Rate						
Hourly Pricing Option (HPO) Rate (removed from Plan)						
Custom Applications Program	13	13	22	1.4	1.4	2.2
Customer Load Response Program						
Commercial and Industrial Drives Program (added to Custom Technology Applications and Custom Applications Programs and removed as a stand-alone Program; however, will continue to report as a line item due to participation under stand-alone offering). Data reflects customer approved applications received prior to approval to decommission.	0	0	6	0.0	0.0	0.1
<b>TOTAL PORTFOLIO</b>	<b>123,619</b>	<b>123,619</b>	<b>370,971</b>	<b>5.6</b>	<b>5.6</b>	<b>19.9</b>
<b>NOTES:</b> (1) Absence of data indicates program has not been launched. (2) MW total may differ from sum of individual components due to rounding.						

**Table 1-7: Reported Gross Demand Reduction by Program through the First 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 (%)
Compact Fluorescent Lighting (CFL) Rewards Program	0.0	0.0	0.2	1.7	14%
Critical Peak Rebate (CPR) Rate				4.9	0%
Residential Energy Star and High Efficiency Appliance Program	0.0	0.0	0.6	4.4	15%
Residential Home Performance Program	0.0	0.0	1.20	2.0	60%
Programmable Controllable Thermostat (PCT) Program (removed from Plan)					
Residential Whole Home Appliance Efficiency Program (previously Residential HVAC Efficiency Program)	0.0	0.0	0.2	1.7	11%
Residential Efficiency Rewards Rate (removed from Plan)					
Pay Ahead (Smart) Service Rate (removed from Plan)					
Residential Low Income Home Performance Check-Up Audit & Appliance Replacement Program	0.0	0.0	0.5	0.3	152%
Residential Low Income Joint Utility Usage Management Program	0.0	0.0	0.007	0.6	1%
Residential Low Income Room Air Conditioner Replacement Program (removed from Plan)					
Governmental/Non-Profit Lighting Efficiency Program	0.7	0.0	1.3	1.7	78%
Commercial HVAC Efficiency Program	0.05	0.0	0.05	1.8	3%
Commercial Products Efficiency Program (previously called Commercial Lighting Efficiency Program)	1.0	0.0	1.6	18.9	9%
Customer Resources Demand Response Program				40.0	0%
Distributed Generation Program				7.0	0%
Custom Technology Applications Program	0.6	0.0	0.9	1.3	69%
Time of Use (TOU) with Critical Peak Pricing Rate				4.5	0%
Hourly Pricing Option (HPO) Rate (removed from Plan)					
Custom Applications Program	3.4	0.0	4.8	5.8	83%
Customer Load Response Program				21.0	0%
Commercial and Industrial Drives Program (added to Custom Technology Applications and Custom Applications Programs and removed as a stand-alone Program; however, will continue to report as a line item due to participation under stand-alone offering). Data reflects customer approved applications received prior to approval to decommission.					
<b>Total</b>	<b>5.8</b>	<b>0.0</b>	<b>11.4</b>	<b>117.6</b>	<b>10%</b>
<b>NOTES:</b> (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.					
(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 adjusted demand impacts by program is presented in Table 1-8.

**Table 1-8: Verified Demand Reduction by Program through the First 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)
Compact Fluorescent Lighting (CFL) Rewards Program	0.2				
Critical Peak Rebate (CPR) Rate					
Residential Energy Star and High Efficiency Appliance Program	0.6				
Residential Home Performance Program	1.2				
Programmable Controllable Thermostat (PCT) Program (removed from Plan)					
Residential Whole Home Appliance Efficiency Program (previously Residential HVAC Efficiency Program)	0.1				
Residential Efficiency Rewards Rate (removed from Plan)					
Pay Ahead (Smart) Service Rate (removed from Plan)					
Residential Low Income Home Performance Check-Up Audit & Appliance Replacement Program	0.5				
Residential Low Income Joint Utility Usage Management Program	0.007				
Residential Low Income Room Air Conditioner Replacement Program (removed from Plan)					
Governmental/Non-Profit Lighting Efficiency Program	0.6				
Commercial HVAC Efficiency Program	0.000				
Commercial Products Efficiency Program (previously called Commercial Lighting Efficiency Program)	0.6				
Customer Resources Demand Response Program					
Distributed Generation Program					
Custom Technology Applications Program	0.3				
Time of Use (TOU) with Critical Peak Pricing Rate					
Hourly Pricing Option (HPO) Rate (removed from Plan)					
Custom Applications Program	1.4				
Customer Load Response Program	0.0				
Commercial and Industrial Drives Program (added to Custom Technology Applications and Custom Applications Programs and removed as a stand-alone Program; however, will continue to report as a line item due to participation under stand-alone offering). Data reflects customer approved applications received prior to approval to decommission.	0.0				
<b>Total</b>	<b>5.6</b>				

**NOTES:** (1) Absence of data in PYTD Reported Gross Impact (MW) column indicates program has not been launched.  
(2) The Realization Rate for the Refrigerator Rebate with Recycling and Freezer Rebate with Recycling were calculated separately to capture the distinct difference between these measures and the other measures within the Appliance Program.  
(3) The Programmable Thermostat measure did not have sufficient participation to warrant M&V through PY2 3Q; therefore, savings are excluded from the preliminary verified results.  
(4) Home Performance Program: Other includes the following; CFL Opt-In, CFL School Kits, JACO bulb distribution and UPMC Kit Mailings (See Section 4.4 for descriptions)

## **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 measure<sup>13</sup> 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.

### **1.4.1 Impact Evaluation**

The impact evaluation is an organized and prioritized process to evaluating electric energy savings and kW impacts within the SWE guidelines. Preliminary realization rates for PY3 and verified savings will be presented in Tables 1-5 and 1-8 in subsequent quarterly reports.

The realization rates for programs verified in PY3 are presented in Table 1-9.

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<sup>13</sup> TRM measures with stipulated values and variables.

**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 for kWh	Confidence and Precision For kWh	Preliminary Realization Rate for kW	Confidence and Precision for kW
Compact Fluorescent Lighting (CFL) Rewards Program						
Critical Peak Rebate (CPR) Rate						
Residential Energy Star and High Efficiency Appliance Program: Dishwashers, Clothes Washers, Cloth Dryers, RAC Rebate, RAC Recycling, Refrigerator Recycling, and Freezer Recycling (Note 2, Note 3)						
Residential Energy Star and High Efficiency Appliance Program: Refrigerator Rebate with Recycling and Freezer Replacement with Recycling (Note 2)						
Residential Home Performance Program: On-line Analyzer						
Residential Home Performance Program: CFL Event Giveaway						
Residential Home Performance Program: Other (Note 5)						
Programmable Controllable Thermostat (PCT) Program (removed from Plan)						
Residential Whole Home Appliance Efficiency Program (previously Residential HVAC Efficiency Program)						
Residential Efficiency Rewards Rate (removed from Plan)						
Pay Ahead (Smart) Service Rate (removed from Plan)						
Residential Low Income Home Performance Check-Up Audit & Appliance Replacement Program						
Residential Low Income Joint Utility Usage Management Program						
Residential Low Income Room Air Conditioner Replacement Program (removed from Plan)						
Governmental/Non-Profit Lighting Efficiency Program						
Commercial HVAC Efficiency Program						
Commercial Products Efficiency Program (previously called Commercial Lighting Efficiency Program)						
Customer Resources Demand Response Program						
Distributed Generation Program						
Custom Technology Applications Program						
Time of Use (TOU) with Critical Peak Pricing Rate						
Hourly Pricing Option (HPO) Rate (removed from Plan)						
Custom Applications Program						
Customer Load Response Program						
Commercial and Industrial Drives Program (added to Custom Technology Applications and Custom Applications Programs and removed as a stand-alone Program; however, will continue to report as a line item due to participation under stand-alone offering). Data reflects customer approved applications received prior to approval to decommission.						
<b>Total</b>						
<b>NOTES:</b>						

#### **1.4.2 Process Evaluation**

The process evaluation activities are designed to provide a comprehensive and systematic assessment of program operations from the planning background to implementation to participant experiences. As stated in the Audit Plan, the process evaluation's primary objective is to help program designers and managers structure their programs to achieve cost-effective savings while maintaining high levels of market penetration, customer satisfaction and program efficiency and effectiveness. A well-designed and implemented process evaluation serves as a basis for recommendations to West Penn Power and program managers involved in program design and implementation. The process evaluation will also identify best practices that West Penn Power may choose to implement going forward.

PY3 evaluation planning is in progress.

## 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 Test<sup>14</sup>**

	<u>Category</u>	<u>IQ</u>	<u>PYTD</u>	<u>CPITD</u>
A.1	EDC Incentives to Participants	\$ 4,098,780	\$ 4,098,780	\$ 11,407,202
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	<b>Subtotal EDC Incentive Costs</b>	\$ 4,098,780	\$ 4,098,780	\$ 11,407,202
B.1	Design & Development <sup>1</sup>	\$ 37,216	\$ 37,216	\$ 1,745,829
B.2	Administration <sup>2</sup>	\$ 368,244	\$ 368,244	\$ 2,794,884
B.3	Management <sup>3</sup>	\$ -	\$ -	\$ -
B.4	Marketing <sup>4</sup>	\$ 57,463	\$ 57,463	\$ 3,255,746
B.5	Technical Assistance <sup>5</sup>	\$ 1,815,758	\$ 1,815,758	\$ 4,713,750
B	<b>Subtotal EDC Implementation Costs</b>	\$ 2,278,681	\$ 2,278,681	\$ 12,510,209
C	<b>EDC Evaluation Costs</b>	\$ 375,935	\$ 375,935	\$ 1,339,551
D	<b>SWE Audit Costs</b>	\$ -	\$ -	\$ 1,044,242
E	<b>Participant Costs</b>			
	<b>Total Costs</b>	\$ 6,753,396	\$ 6,753,396	\$ 26,301,204
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			

**NOTES:** Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output (this includes items E, F, and G, as well as, the Portfolio Benefit-to-Cost Ratio).

<sup>1</sup>Internal labor related to design, development and modeling EE programs.

<sup>2</sup>Internal Labor for EE program implementation and call center representatives, employee expenses, and common costs.

<sup>3</sup>N/A

<sup>4</sup>Costs incurred for CSP provider.

<sup>5</sup>Outside Services for CSP's related to program management.

<sup>14</sup> 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 3
Compact Fluorescent Lighting (CFL) Rewards Program	\$ 59,843,634	\$ 5,605,151	10.7
Critical Peak Rebate (CPR) Rate 2	\$ 581,585	\$ 361,780	1.6
Residential Energy Star and High Efficiency Appliance Program	\$ 47,928,030	\$ 15,638,302	3.1
Residential Home Performance Program	\$ 48,465,639	\$ 20,624,013	2.3
Programmable Controllable Thermostat (PCT) Program 2	\$ 581,585	\$ 755,302	0.8
Residential Whole Home Appliance Efficiency Program	\$ 8,360,467	\$ 5,137,000	1.6
Residential Efficiency Rewards Rate 2	\$ 580,026	\$ 253,246	2.3
Pay Ahead (Smart) Service Rate 2	\$ 248,583	\$ 108,534	2.3
Residential Low Income Home Performance Check-Up Audit & Appliance Replacement Program	\$ 3,582,852	\$ 1,026,504	3.5
Residential Low Income Joint Utility Usage Management Program	\$ 10,494,152	\$ 6,362,561	1.6
Residential Low Income Room Air Conditioner Replacement Program	\$ 478,050	\$ 580,312	0.8
Governmental/Non-Profit Lighting Efficiency Program	\$ 114,497,301	\$ 9,362,393	12.2
Commercial HVAC Efficiency Program	\$ 5,833,129	\$ 3,359,649	1.7
Commercial Products Efficiency Program	\$ 634,666,350	\$ 60,073,127	10.6
Customer Resources Demand Response Program	\$ 4,551,628	\$ 2,812,693	1.6
Distributed Generation Program	\$ 757,680	\$ 909,963	0.8
Custom Technology Applications Program 1	\$ 11,422,726	\$ 1,355,898	8.4
Time of Use (TOU) with Critical Peak Pricing Rate 2	\$ 1,150,179	\$ 437,898	2.6
Hourly Pricing Option (HPO) Rate 2	\$ 202,973	\$ 77,276	2.6
Custom Applications Program 1	\$ 67,814,602	\$ 1,030,660	65.8
Customer Load Response Program	\$ 3,072,351	\$ 2,506,831	1.2
Commercial and Industrial Drives Program	\$ 14,571,794	\$ 8,362,762	1.7
<b>Total for Plan</b>	<b>\$ 1,039,685,316</b>	<b>\$ 146,741,855</b>	<b>7.1</b>
<b>NOTES:</b>			
1. Excludes customer costs due to variability of eligible customer projects. Customer costs are evaluated during project selection process.			
2. Dynamic rate offerings are enabled by Smart Metering Infrastructure			
3. Represents total benefits to total costs ratio over lifetime of all measures installed in the 2009-2012 Plan years.			

## 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

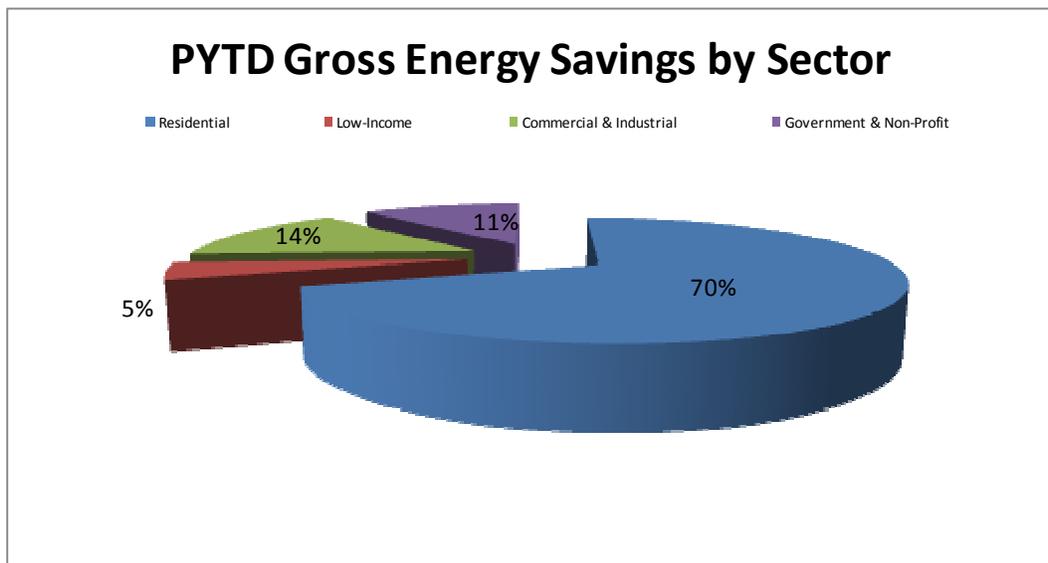
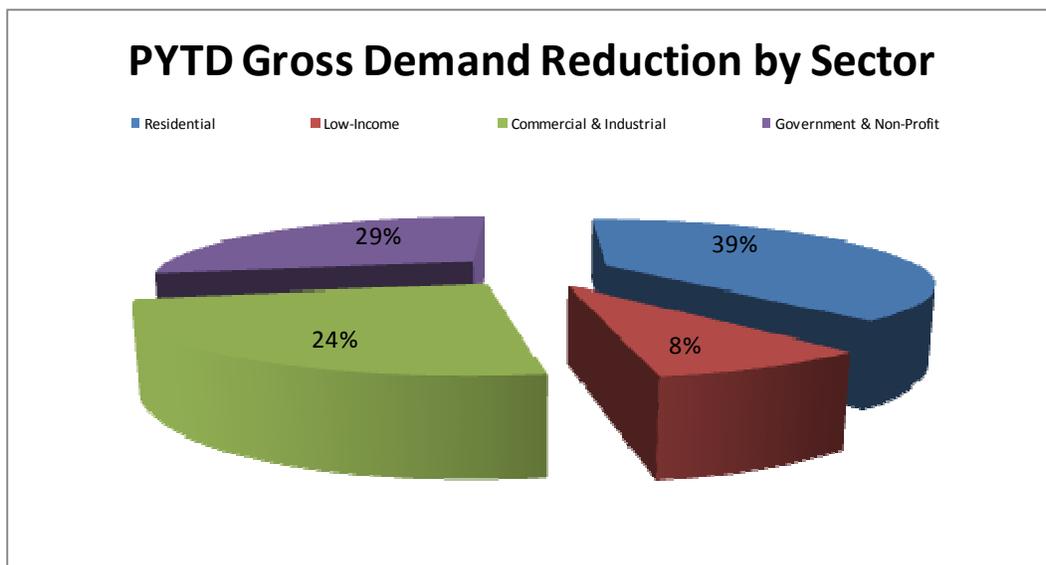


Figure 2-2: PYTD Reported Gross Demand Reduction by Sector



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 First Quarter, Program Year 3

Market Sector	Reported Gross Impact (MWh)			Projects in Progress	Total Committed	Unverified Ex Post Savings
	IQ	PYTD	CPITD			
Residential EE	34,777	34,777	92,373	294	35,071	0
Residential Low-Income EE	2,259	2,259	9,089	0	2,259	0
Small Commercial & Industrial EE	3,761	3,761	16,046	10,929	14,690	0
Large Commercial & Industrial EE	3,471	3,471	7,951	18,986	22,458	0
Government & Non-Profit EE	5,655	5,655	20,631	5,582	11,237	0
<b>TOTAL PORTFOLIO</b>	<b>49,923</b>	<b>49,923</b>	<b>146,090</b>	<b>35,791</b>	<b>85,715</b>	<b>0</b>

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 First Quarter, Program Year 3

Market Sector	Reported Gross Impact (MW)			Projects in Progress	Total Committed	Unverified Ex Post Savings
	IQ	PYTD	CPITD			
Residential EE	2.2	2.2	7.8	0.1	2.3	0.0
Residential Low-Income EE	0.5	0.5	1.7	0.0	0.5	0.0
Small Commercial & Industrial EE	0.7	0.7	3.0	1.4	2.2	0.0
Large Commercial & Industrial EE	0.6	0.6	1.5	3.0	3.6	0.0
Government & Non-Profit EE	1.6	1.6	5.9	1.3	2.9	0.0
<b>TOTAL PORTFOLIO</b>	<b>5.6</b>	<b>5.6</b>	<b>19.9</b>	<b>5.8</b>	<b>11.4</b>	<b>0.0</b>

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 76,096 MWh and the sector target for annual peak demand reduction is 14.7 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 First Quarter, Program Year 3**

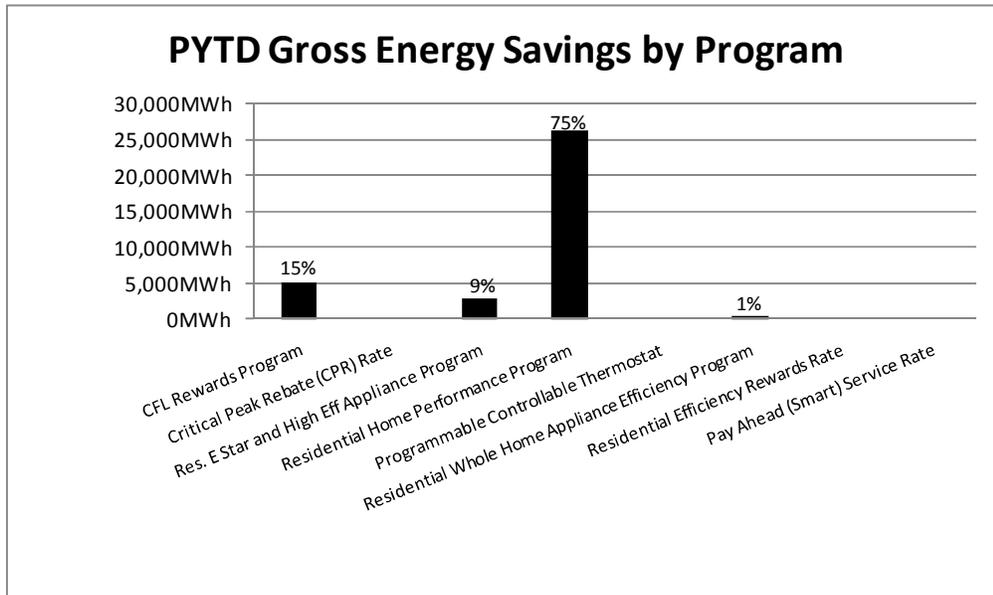
Residential EE Sector	IQ Participants	IQ Reported Gross Energy Savings (MWh)	IQ Reported Gross Demand Reduction (MW)
Compact Fluorescent Lighting (CFL) Rewards Program	32,310	5,097	0.2
Critical Peak Rebate (CPR) Rate			
Residential Energy Star and High Efficiency Appliance Program	6,986	3,005	0.6
Residential Home Performance Program	81,674	26,213	1.2
Programmable Controllable Thermostat (PCT) Program (Removed from Plan)			
Residential Whole Home Appliance Efficiency Program	440	462	0.1
Residential Efficiency Rewards Rate (Removed from Plan)			
Pay Ahead (Smart) Service Rate (Removed from Plan)			
<b>Total for Residential Programs</b>	<b>121,410</b>	<b>34,777</b>	<b>2.2</b>
<b>NOTES:</b> (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 First Quarter, Program Year 3**

Residential EE Sector	PYTD Participants	PYTD Reported Gross Energy Savings (MWh)	PYTD Reported Gross Demand Reduction (MW)
Compact Fluorescent Lighting (CFL) Rewards Program	32,310	5,097	0.2
Critical Peak Rebate (CPR) Rate			
Residential Energy Star and High Efficiency Appliance Program	6,986	3,005	0.6
Residential Home Performance Program	81,674	26,213	1.20
Programmable Controllable Thermostat (PCT) Program (Removed from Plan)			
Residential Whole Home Appliance Efficiency Program	440	462	0.1
Residential Efficiency Rewards Rate (Removed from Plan)			
Pay Ahead (Smart) Service Rate (Removed from Plan)			
<b>Total for Residential Programs</b>	<b>121,410</b>	<b>34,777</b>	<b>2.2</b>
<b>NOTES:</b> (1) Absence of data indicates program has not been launched. (2) MW total may differ from sum of individual components due to rounding.			

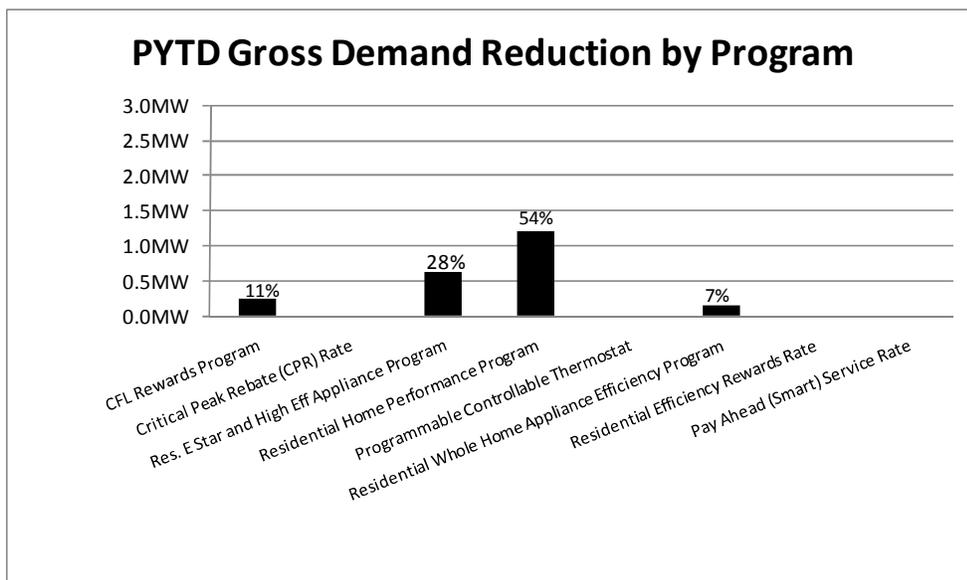
A summary of the sector energy savings by program is presented in Figure 2-3.<sup>15</sup>

**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.<sup>16</sup>

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



<sup>15</sup> Absence of data indicates program has not been launched.

<sup>16</sup> Absence of data indicates program has not been launched.

## 2.2 Residential Low-Income EE Sector

The sector target for annual energy savings is 4,305 MWh and the sector target for annual peak demand reduction is 0.9 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 First Quarter, Program Year 3**

Residential Low Income EE Sector	IQ Participants	IQ Reported Gross Energy Savings (MWh)	IQ Reported Gross Demand Reduction (MW)
Residential Low Income Home Performance Check-Up Audit & Appliance Replacement Program	2,051	2,221	0.5
Residential Low Income Joint Utility Usage Management Program	31	39	0.007
Residential Low Income Room Air Conditioner Replacement Measure (Removed from Plan)			
<b>Total for Low Income Sector</b>	<b>2,082</b>	<b>2,259</b>	<b>0.5</b>

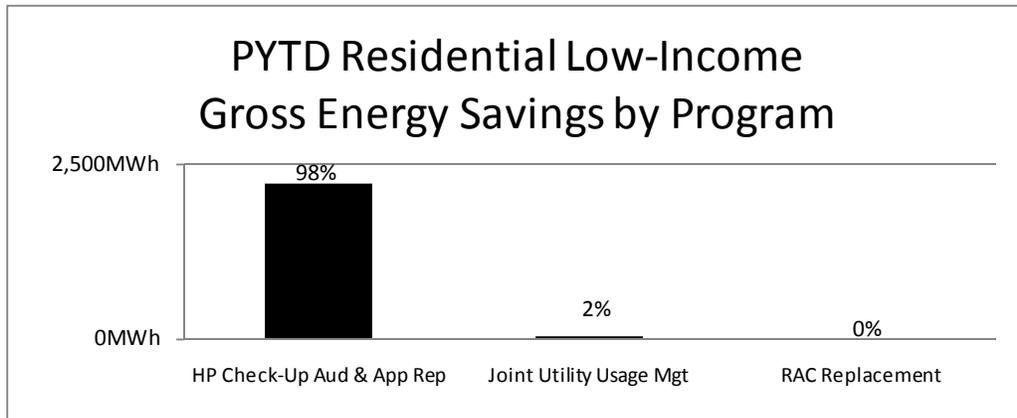
**NOTES:** (1) MW total may differ from sum of individual components due to rounding.  
 (2) IQ reflects negative value due to adoption of TRM 2011 per unit savings values for showerheads and faucet aerators. CPITD and PYTD values also reflect this adjustment.

**Table 2-6: Summary of Residential Low-Income EE Sector PYTD Impacts by Program through the First Quarter, Program Year3**

Residential Low Income EE Sector	PYTD Participants	PYTD Reported Gross Energy Savings (MWh)	PYTD Reported Gross Demand Reduction (MW)
Residential Low Income Home Performance Check-Up Audit & Appliance Replacement Program	2,051	2,221	0.5
Residential Low Income Joint Utility Usage Management Program	31	39	0.007
Residential Low Income Room Air Conditioner Replacement Measure (Removed from Plan)			
<b>Total for Low Income Sector</b>	<b>2,082</b>	<b>2,259</b>	<b>0.5</b>

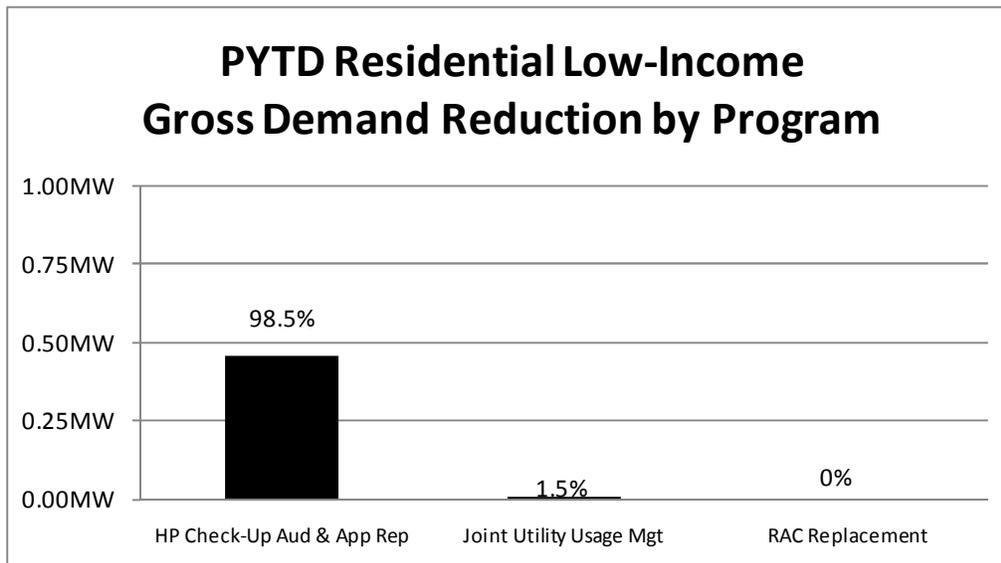
A summary of the sector energy savings by program is presented in Figure 2-5.

**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 105,318 MWh and the sector target for annual peak demand reduction is 26.5 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 First Quarter, Program Year 3<sup>17</sup>**

Small Commercial & Industrial EE Sector	IQ Participants	IQ Reported Gross Energy Savings (MWh)	IQ Reported Gross Demand Reduction (MW)
Commercial HVAC Efficiency Program	1	2	0.0
Commercial Products Efficiency Program	45	2,867	0.6
Customer Resources Demand Response Program			
Custom Technology Applications Program	4	892	0.1
Time of Use (TOU) with Critical Peak Pricing Rate			
Hourly Pricing Option (HPO) Rate (Removed from Plan)			
<b>Total for Small Commercial &amp; Industrial</b>	<b>50</b>	<b>3,761</b>	<b>0.7</b>

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 First Quarter, Program Year 3<sup>18</sup>**

Small Commercial & Industrial EE Sector	PYTD Participants	PYTD Reported Gross Energy Savings (MWh)	PYTD Reported Gross Demand Reduction (MW)
Commercial HVAC Efficiency Program	1	2	0.000
Commercial Products Efficiency Program	45	2,867	0.6
Customer Resources Demand Response Program			
Custom Technology Applications Program	4	892	0.1
Time of Use (TOU) with Critical Peak Pricing Rate			
Hourly Pricing Option (HPO) Rate (Removed from Plan)			
<b>Total for Small Commercial &amp; Industrial</b>	<b>50</b>	<b>3,761</b>	<b>0.7</b>

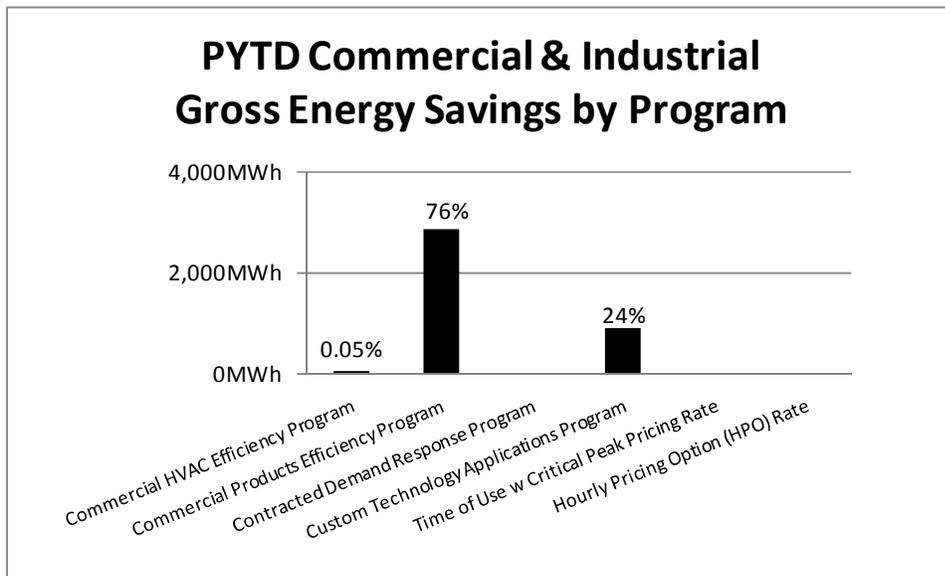
NOTES: Absence of data indicates program has not been launched.

<sup>17</sup> Table 2-7 reflects an adjustment for Government and non-Profit Sector participation in the Commercial Products Efficiency and Custom Technology Applications Programs.

<sup>18</sup> Table 2-8 reflects an adjustment for Government and non-Profit Sector participation in the Commercial Products Efficiency and Custom Technology Applications Programs.

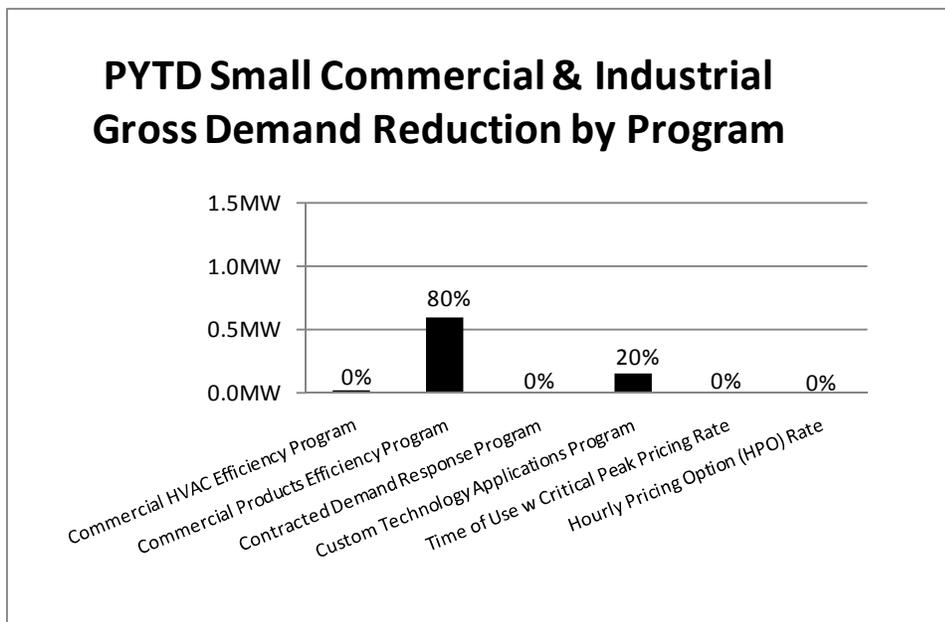
A summary of the sector energy savings by program is presented in Figure 2-7.<sup>19</sup>

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.<sup>20</sup>

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



<sup>19</sup> Absence of data indicates program has not been launched.

<sup>20</sup> Absence of data indicates program has not been launched.

## 2.4 Large Commercial & Industrial EE Sector

The sector target for annual energy savings is 31,828 MWh and the sector target for annual peak demand reduction 73.8 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 First Quarter, Program Year 3<sup>21</sup>**

Large Commercial & Industrial EE Sector	IQ Participants	IQ Reported Gross Energy Savings (MWh)	IQ Reported Gross Demand Reduction (MW)
Custom Applications Program	9	3,471	0.6
Customer Load Response Program			
Distributed Generation Program			
Commercial and Industrial Drives Program	0	0	0.0
<b>Total for Large Commercial &amp; Industrial Sector</b>	<b>9</b>	<b>3,471</b>	<b>0.6</b>

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 First Quarter, Program Year 3<sup>22</sup>**

Large Commercial & Industrial EE Sector	PYTD Participants	PYTD Reported Gross Energy Savings (MWh)	PYTD Reported Gross Demand Reduction (MW)
Custom Applications Program	9	3,471	0.6
Customer Load Response Program			
Distributed Generation Program			
Commercial and Industrial Drives Program	0	0	0.00
<b>Total for Large Commercial &amp; Industrial Sector</b>	<b>9</b>	<b>3,471</b>	<b>0.6</b>

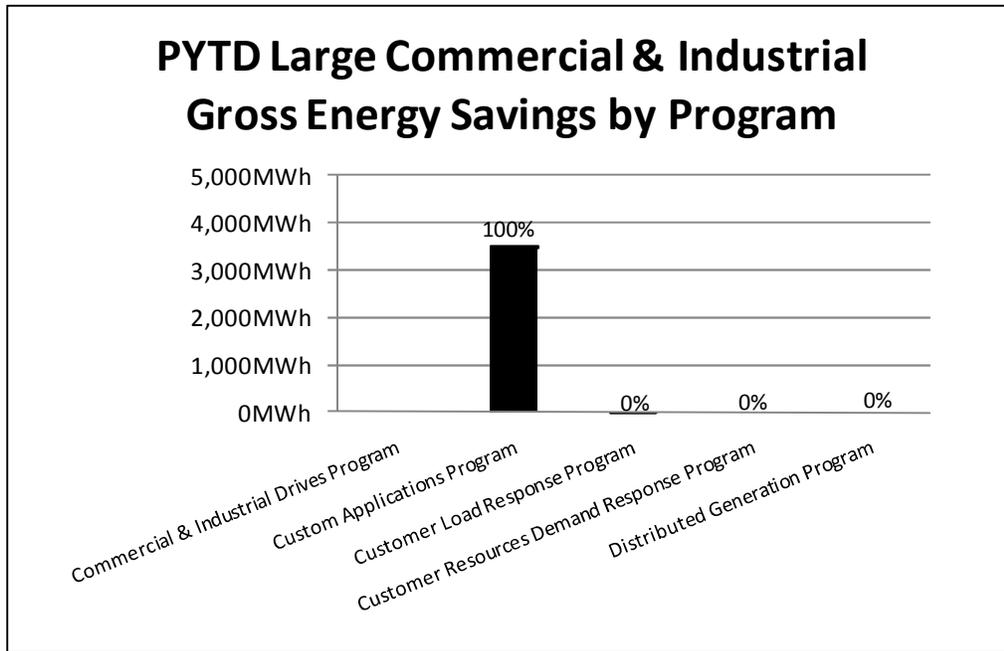
NOTES: (1) Absence of data indicates program has not been launched.  
(2) MW total may differ from sum of individual components due to rounding.

<sup>21</sup> Table 2-9 reflects an adjustment for Government and non-Profit Sector participation in the Commercial and Industrial Drives Program.

<sup>22</sup> Table 2-10 reflects an adjustment for Government and non-Profit Sector participation in the Commercial and Industrial Drives Program.

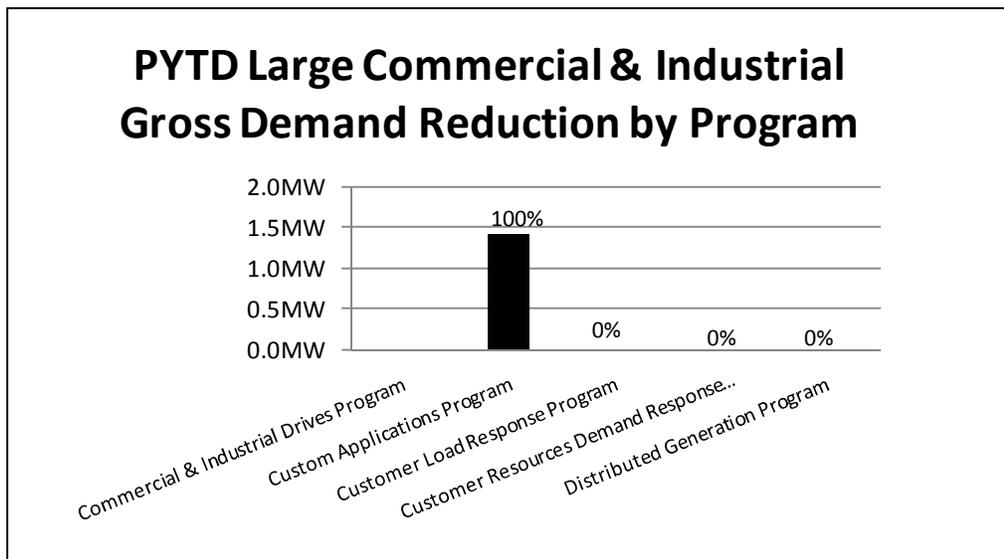
A summary of the sector energy savings by program is presented in Figure 2-9.<sup>23</sup>

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.<sup>24</sup>

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



<sup>23</sup> Absence of data indicates program has not been launched.

<sup>24</sup> Absence of data indicates program has not been launched.

## 2.5 Government & Non-Profit EE Sector

The sector target for annual energy savings is 9,379 MWh and the sector target for annual peak demand reduction is 1.75 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 First Quarter, Program Year 3<sup>25</sup>**

Gov't. & Non-Profit EE Sector	IQ Participants	IQ Reported Gross Energy Savings (MWh)	IQ Reported Gross Demand Reduction (MW)
Governmental/ Non-Profit Lighting Efficiency Program	54	1,937	0.6
Commercial Products Efficiency Program	8	211	0.0
Custom Technology Applications Program	2	395	0.2
Custom Applications Program	4	3,111	0.8
Commercial and Industrial Drives Program	0	0	0.0
<b>Total for Gov't and Non-Profit EE Sector</b>	<b>68</b>	<b>5,655</b>	<b>1.6</b>

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 First Quarter, Program Year 3<sup>26</sup>**

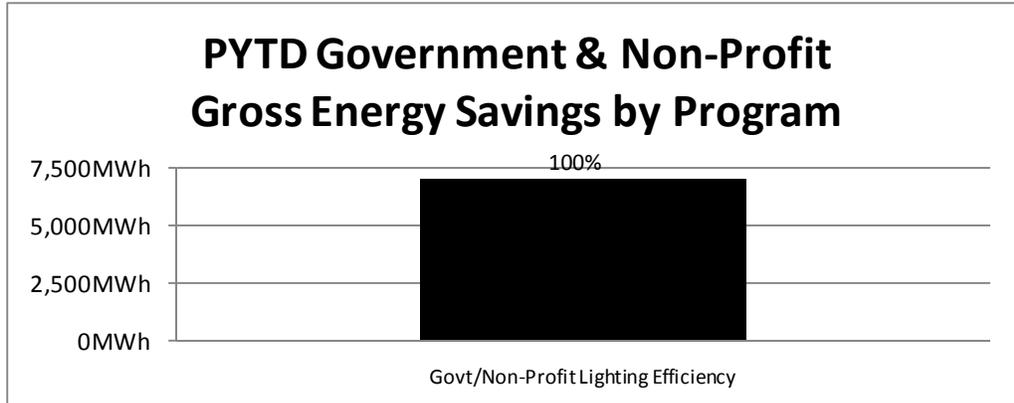
Gov't. & Non-Profit EE Sector	PYTD Participants	PYTD Reported Gross Energy Savings (MWh)	PYTD Reported Gross Demand Reduction (MW)
Governmental/ Non-Profit Portfolio Program	54	1,937	0.6
Commercial Products Efficiency Program	8	211	0.0
Custom Technology Applications Program	2	395	0.2
Custom Applications Program	4	3,111	0.8
Commercial and Industrial Drives Program	0	0	0.0
<b>Total for Gov't and Non-Profit EE Sector</b>	<b>68</b>	<b>5,655</b>	<b>1.6</b>

<sup>25</sup> Table 2-12 reflects an adjustment for Government and non-Profit Sector participation in the Commercial Products Efficiency, Custom Technology Applications, and Commercial and Industrial Drives Programs.

<sup>26</sup> Table 2-13 reflects an adjustment for Government and non-Profit Sector participation in the Commercial Products Efficiency, Custom Technology Applications, and Commercial and Industrial Drives Programs.

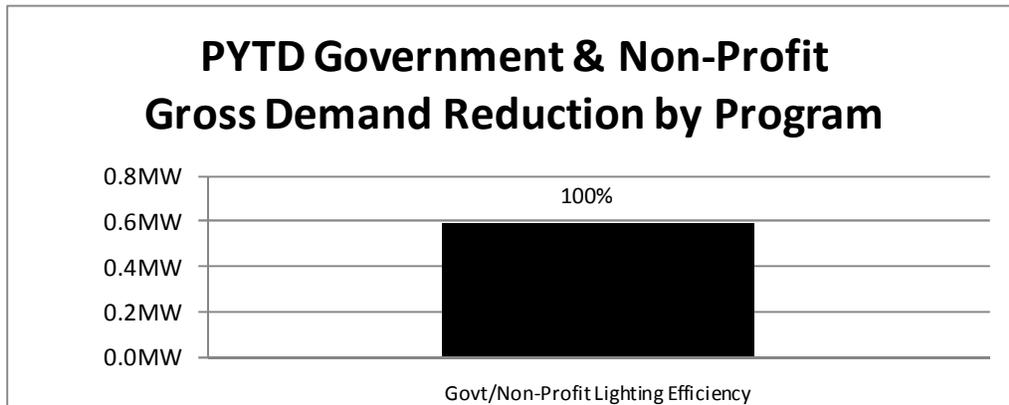
A summary of the sector energy savings by program is presented

**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 Compact Fluorescent Lighting (CFL) Rewards Program**

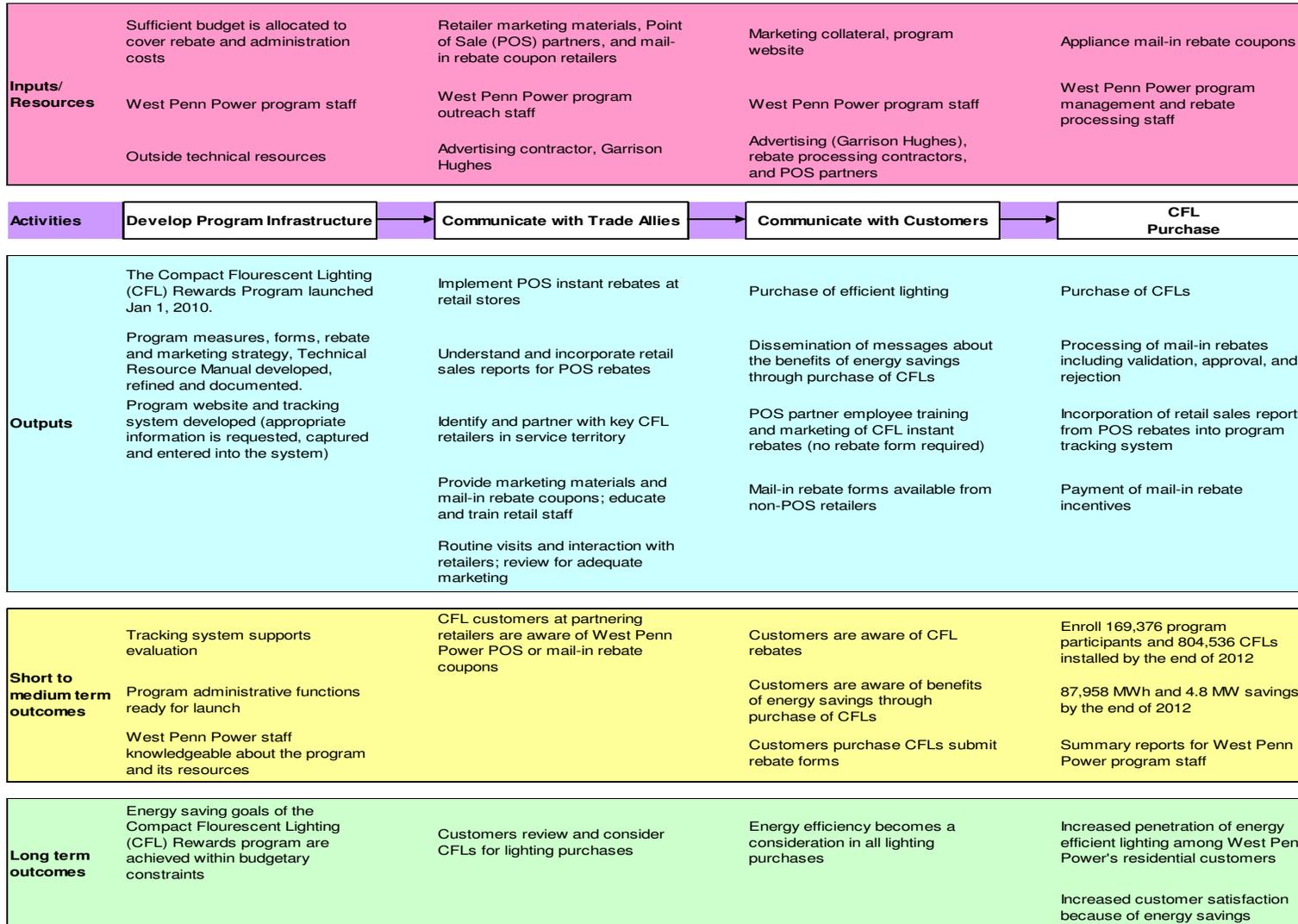
The CFL Rebate Program encourages customers to purchase CFLs instead of incandescent bulbs. To encourage participation and to overcome cost barriers, this program provides mail-in and retailer point-of-sale (POS) rebates.

The CFL rebate design launched in January 2010 and the POS launched in August 2010. West Penn Power partnered with several manufacturers and negotiated buy downs of bulk CFLs which in turn, reduces the purchase price at the retail store, and negates the need for customers to follow through the mail-in rebate process. Participating retail stores include Home Depot, Walmart, Sam's Club, and Lowe's.

#### **4.1.1 Program Logic**

A program logic model is a visual representation of the program's theory that illustrates a set of interrelated program activities that combine to produce a variety of outputs that lead to key short-, mid- and long-term outcomes. Below is the PY3 Program Logic Model.

### Residential Compact Fluorescent Lighting Rewards Program Logic Model



#### **4.1.2 Program M&V Methodology and Program Sampling**

PY3 evaluation planning is in progress.

#### **4.1.3 Program Sampling**

Refer to Section 4.1.2 above.

#### **4.1.4 Process Evaluation**

PY3 evaluation planning is in progress.

#### **4.1.5 Program Partners and Trade Allies**

Customers benefit from a POS instant rebate when they purchase a single or multi pack of CFL light bulbs at various retailers associated with the WPP POS agreements. The partnerships are with the CFL manufacturers which supply retail stores. See below for a summary of partnerships:

- WPP has a POS Partnership with GE Lighting. The retailers associated with this partnership at this time are Wal-Mart and Sam's Club.
- WPP has a partnership agreement with Philips Lighting. The retailer associated with this partnership is Home Depot.
- WPP also has an agreement with Lowe's which will include multiple manufacturers.
- WPP is securing additional agreements with GE and Osram/Sylvania. The GE agreements will include True Value, Ace Hardware, CVS, and Rite Aid. As of the end of Q1, these agreements were not finalized. The retailers at this level are reluctant to enter into any additional agreements at this time.
- WPP will leverage it's agreement with Honeywell in future months to secure additional point of sale agreements.

#### 4.1.6 Program Finances

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

Table 4-1: Summary of Compact Fluorescent Lighting (CFL) Rewards Program Finances: TRC Test<sup>27</sup>

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 41,162	\$ 41,162	\$ 530,791
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	<b>Subtotal EDC Incentive Costs</b>	\$ 41,162	\$ 41,162	\$ 530,791
B.1	Design & Development	\$ 2,326	\$ 2,326	\$ 121,791
B.2	Administration	\$ 9,588	\$ 9,588	\$ 125,945
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 880	\$ 880	\$ 221,330
B.5	Technical Assistance	\$ 8,714	\$ 8,714	\$ 185,571
B	<b>Subtotal EDC Implementation Costs</b>	\$ 21,508	\$ 21,508	\$ 654,637
C	<b>EDC Evaluation Costs</b>	\$ 17,701	\$ 17,701	\$ 73,341
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>	\$ 80,371	\$ 80,371	\$ 1,258,769
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES:</b> (1) Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

<sup>27</sup> Definitions for terms in following table are subject to TRC Order.

## **4.2 Critical Peak Rebate Program**

The Critical Peak Rebate Program (CPR) demand response program encourages residential customers to lower their demand during peak load hours by offering a rate discount/rebate based on actual demand reduction. The load reduction must occur during notified peak hours. CPR relies on the installation of a smart meter to measure the customer's demand during peak hours.

A limited deployment is planned for the 3<sup>rd</sup> quarter 2011 with full rollout starting in the 4<sup>th</sup> quarter of 2011.

### **4.2.1 Program Logic**

Program Logic will be provided in PY3.

### **4.2.2 Program M&V Methodology**

Program M&V Methodology will be determined in PY3.

### **4.2.3 Program Sampling**

Program Sampling will be determined in PY3.

### **4.2.4 Process Evaluation**

Process Evaluation will be determined in PY3.

### **4.2.5 Program Partners and Trade Allies**

Program Partners and Trade Allies are to be determined.

#### 4.2.6 Program Finances

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

Table 4-2: Summary of Critical Peak Rebate Program Finances: TRC Test<sup>28</sup>

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ -	\$ -	\$ -
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	<b>Subtotal EDC Incentive Costs</b>	\$ -	\$ -	\$ -
B.1	Design & Development	\$ 2,326	\$ 2,326	\$ 5,086
B.2	Administration	\$ 3,985	\$ 3,985	\$ 32,127
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 686	\$ 686	\$ 53,568
B.5	Technical Assistance	\$ 3,415	\$ 3,415	\$ 24,271
B	<b>Subtotal EDC Implementation Costs</b>	\$ 10,412	\$ 10,412	\$ 115,052
C	<b>EDC Evaluation Costs</b>	\$ 9,570	\$ 9,570	\$ 16,587
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>	\$ 19,982	\$ 19,982	\$ 131,639
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES:</b> Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

<sup>28</sup> Definitions for terms in following table are subject to TRC Order.

### **4.3 Residential ENERGY STAR and High Efficiency Appliance Program**

The ENERGY STAR and High Efficiency Appliance Program encourages customers to purchase the most energy-efficient appliances available. To promote participation and to overcome first cost barriers, this program provides rebates (equal to about 50 percent of the appliance's incremental cost in most cases) for the purchase of appliances that meet or exceed ENERGY STAR or other energy efficiency ratings.

Mail-in rebates are offered for clothes washers, clothes dryers, dishwashers, refrigerators, freezers, programmable thermostats, and room air conditioners. Appliance turn-in rebates are also available through the program for refrigerators, freezers, and room air conditioners. Rebates for high efficiency refrigerators and freezers require turn in of the older replaced appliance.

This Program launched in January 2010

#### **4.3.1 Program Logic**

A program logic model is a visual representation of the program's theory that illustrates a set of interrelated program activities that combine to produce a variety of outputs that lead to key short-, mid- and long-term outcomes. Below is the PY3 Program Logic Model.

### Residential ENERGY STAR and High Efficiency Appliance Program Logic Model

<b>Inputs/ Resources</b>	Sufficient budget is allocated to cover rebate and administration costs	Point of sale partners and marketing materials, including mail-in rebate coupons	Marketing collateral, program website	Appliance mail-in rebate and recycling coupons	West Penn Power program staff
	West Penn Power program staff	West Penn Power program outreach staff	West Penn Power program staff	Rebate processor and recycling contractor (JACO)	Evaluation reports
	Outside technical resources	Appliance recycler, JACO	Advertising contractor (Garrison Hughes) and JACO for recycling	West Penn Power program staff	Appliance efficiency standards
<b>Activities</b>	<b>Develop Program Infrastructure</b>	<b>Communicate with Trade Allies</b>	<b>Communicate with Customers</b>	<b>Appliance Purchase/Recycling</b>	<b>Adjust Rebates as Appliance Efficiency Levels Change</b>
<b>Outputs</b>	The ENERGY STAR and High Efficiency Appliances Program launched Jan 1, 2010.	Identify and partner with key appliance retailers in service territory	Coupon distribution in print media and on website	Purchase of qualified efficient appliances	New list of rebated appliances
	Program measures, forms, rebate and marketing strategy, Technical Resource Manual developed, refined and documented.	Provide marketing materials and mail-in rebate coupons; educate and train retail staff	Dissemination of TV, Internet, and newspaper messages about the benefits of energy savings through purchase of efficient appliances	Processing of mail-in rebate forms including validation, approval, and rejection	New marketing collateral
	Program website and tracking system developed (appropriate information is requested, captured and entered into the system)	Retailer aware and promotes additional customer rebates for recycling refrigerators, freezers, and room air conditioners by  Routine visits and interaction with retailers; review for adequate marketing	The Home Performance program will inform potential customers	Recycling of old refrigerator, freezer, and room air conditioner  Timely payment of program incentives by West Penn Power for appliance rebates, and JACO for recycling rebates	
<b>Short to medium term outcomes</b>	Tracking system supports evaluation	Appliance customers at partnering retailers are aware of both West Penn Power purchase and recycling mail-in rebates	Customers are aware of appliance rebates	Enroll 57,344 program participants by the end of Program Year 2012	New energy savings goals
	Program administrative functions ready for launch		Customers are aware of benefits of energy savings through purchase of efficient appliances	51,233 MWh and 12.7 MW savings by the end of 2012	Customers aware of exact rebate amount before installation
	West Penn Power staff knowledgeable about the program and its resources		Customers purchase efficient appliances and submit rebate forms	Summary reports for West Penn Power program staff	
<b>Long term outcomes</b>	Energy saving goals of the ENERGY STAR and High Efficiency Appliances program are achieved within budgetary constraints	Customers review and consider ENERGY STAR rated appliances for all purchases	Energy efficiency becomes a consideration in all appliance purchases	Increased penetration of energy efficient equipment among West Penn Power's residential customers  Increased customer satisfaction because of energy savings	Saturation of efficient technology is avoided because standards are updated.

#### **4.3.2 Program M&V Methodology and Program Sampling**

PY3 evaluation planning is in progress.

#### **4.3.3 Program Sampling**

Refer to Section 4.3.2 above.

#### **4.3.4 Process Evaluation**

PY3 evaluation planning is in progress.

#### **4.3.5 Program Partners and Trade Allies**

WPP identified and worked with key market actors, specifically local appliance retailers and big box retail stores, to market and promote high efficiency appliance options. These marketing efforts are positively affecting program participation. Program marketing begins with identifying and teaming with key market actors; in this case, appliance retailers and big box retail stores. Program marketing and rebate materials are placed with the appliances, with program eligibility decals placed directly on qualifying appliances in some instances. West Penn Power staff educates and trains store management and employees about the program's offerings. West Penn Power would like to expand the program aggressively by incorporating additional local retail stores.

West Penn Power has expanded the purchase rebate eligibility for customers using recycler's other than the Company recycling CSP (JACO) to provide customers with more convenient retailer recycling options by adding "program qualified recyclers" to the Program.

The Company is also working with Lowe's on a pilot initiative to print rebate forms at the time of purchase.

### 4.3.6 Program Finances

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

**Table 4-3: Summary of Residential ENERGY STAR and High Efficiency Appliance Program Finances: TRC Test<sup>29</sup>**

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 346,121	\$ 346,121	\$ 1,767,307
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	<b>Subtotal EDC Incentive Costs</b>	\$ 346,121	\$ 346,121	\$ 1,767,307
B.1	Design & Development	\$ 2,326	\$ 2,326	\$ 137,833
B.2	Administration	\$ 64,666	\$ 64,666	\$ 257,408
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 28,083	\$ 28,083	\$ 1,876,808
B.5	Technical Assistance	\$ 138,676	\$ 138,676	\$ 753,587
B	<b>Subtotal EDC Implementation Costs</b>	\$ 233,751	\$ 233,751	\$ 3,025,636
C	<b>EDC Evaluation Costs</b>	\$ 48,669	\$ 48,669	\$ 252,438
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>	\$ 628,541	\$ 628,541	\$ 5,045,381
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES:</b> (1) Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

<sup>29</sup> Definitions for terms in following table are subject to TRC Order.

#### **4.4 Residential Home Performance Program**

The Residential Home Performance Program provides a holistic approach to educating customers on energy efficiency and conservation, and to improve overall home performance, by providing customers with a choice of two energy audit measures including an On-line Audit and an In-Home Audit. WPP is offering a \$50 incentive for an In-Home Audit. The customer will be eligible to receive an additional incentive for the installation of measures recommended by the audit up to the balance of the audit cost. The Consumer Efficiency measure will study customer demographic and perform a bill analysis. The customer will be presented a report containing EE&C efficiency education and opportunities to reduce consumption based on the demographic and bill analysis. The Consumer Efficiency measure will also provide EE&C educational materials for schools.

The measures directly available through this program for electric heat customers are attic insulation and home sealing via qualified In-home Audits.

The On-line Audit and Consumer Efficiency measures have been launched.

Customers participating in the On-line Audit receive eight CFLs (four CFLs were provided prior to March 2011).

The Consumer Efficiency measure includes:

- CFL Event Giveaways: up to 8 bulbs are given to customers attending events held within the WPP service territory;
- CFL School Kits: customers send in post card to receive 4-60W incandescent equivalent CFL bulbs by mail;
- CFL Opt-In Program: customers go on-line or speak to a representative to order a CFL kit that includes 4-60W and 2-100W incandescent equivalent CFL bulbs by mail;
- JACO bulb distribution: JACO provides customers with 4-60W, 2-75W, and 2-100W incandescent equivalent CFL bulbs; and,
- UPMC Kit Mailings (one time): partnered with Duquesne Light to provide employees in WPP service territory with receive 2-60W, 1-75W, and 1-100W incandescent equivalent CFL bulbs, 2 lime lights, and 1 Smart Strip.

The In-Home Audit component has not yet been launched.

##### **4.4.1 Program Logic**

A program logic model is a visual representation of the program's theory that illustrates a set of interrelated program activities that combine to produce a variety of outputs that lead to key short-, mid- and long-term outcomes. Below is the PY3 Program Logic Model, which currently includes the On-line Audit portion of the Home Performance Program.

**Residential On-line Audit Home Performance Program Logic Model**

<b>Inputs/ Resources</b>	Sufficient budget is allocated	Marketing materials	Online analyzer web tool
	Program Team	Program website	
<b>Activities</b>	<b>Develop Program Infrastructure</b>	<b>Direct marketing</b>	<b>Perform On-line Audits</b>
<b>Outputs</b>	<p>The online audit portion of the program is made available to customers in 2010</p> <p>Program measures, marketing strategy and technical assumptions developed, refined and documented</p> <p>Tracking system developed and appropriate information is requested, captured and entered</p>	<p>Target direct communications to residential customers and other outreach such as bill inserts, direct mail, radio, and inbound call center</p> <p>General Awareness Campaign</p> <p>Snippets from Energy At Home DVD on AP website</p>	<p>Target 19,000 online audit participants in 2010</p> <p>Participants receive four free CFLs (8 Bulbs effective 3/2011)</p> <p>Customers are referred to other West Penn Power programs through the online analyzer</p>
<b>Short to medium term outcomes</b>	<p>Improved energy efficiency program awareness and participation</p> <p>Resources are available to provide services to customers</p>	<p>Customer interest is stimulated by marketing the availability and benefits of audit options</p> <p>AP Call center receives program inquiries</p>	<p>Customer interest in additional energy saving measures is generated by audit recommendations</p> <p>kW, kWh and therm savings are identified</p>
<b>Long term outcomes</b>	<p>Energy saving goals of the program are achieved within budgetary constraints</p>	<p>Residential customers' awareness of and participation in the program increases</p>	<p>Customer interest in additional energy saving measures is generated by audit recommendations</p>

#### 4.4.2 Program M&V Methodology and Program Sampling

PY3 evaluation planning is in progress.

#### 4.4.3 Program Sampling

Refer to Section 4.4.2 above.

#### 4.4.4 Process Evaluation

PY3 evaluation planning is in progress.

#### 4.4.5 Program Partners and Trade Allies

Alclara provides the on-line audit tool. Power Direct is administering the CFL Opt-in 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 Test<sup>30</sup>

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 1,248,455	\$ 1,248,455	\$ 1,918,378
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	<b>Subtotal EDC Incentive Costs</b>	\$ 1,248,455	\$ 1,248,455	\$ 1,918,378
B.1	Design & Development	\$ 2,326	\$ 2,326	\$ 129,095
B.2	Administration	\$ 36,584	\$ 36,584	\$ 153,409
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 1,481	\$ 1,481	\$ 723,279
B.5	Technical Assistance	\$ 928,547	\$ 928,547	\$ 1,134,629
B	<b>Subtotal EDC Implementation Costs</b>	\$ 968,938	\$ 968,938	\$ 2,140,412
C	<b>EDC Evaluation Costs</b>	\$ 55,281	\$ 55,281	\$ 137,590
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>	\$ 2,272,674	\$ 2,272,674	\$ 4,196,380
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES:</b> (1) Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

<sup>30</sup> Definitions for terms in following table are subject to TRC Order.

### 4.5 Programmable Controllable Thermostat (PCT) Program

The Company’s amended September 10, 2010 EE&C/DR Plan removed this program from the WPP EE&C Plan.

#### 4.5.1 Program Logic

Not applicable.

#### 4.5.2 Program M&V Methodology

Not applicable.

#### 4.5.3 Program Sampling

Not applicable.

#### 4.5.4 Process Evaluation

Not applicable.

#### 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. Not applicable.

**Table 4-5: Summary of Programmable Controllable Thermostat (PCT) Program Finances: TRC Test**

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants			
A.2	EDC Incentives to Trade Allies			
A	<b>Subtotal EDC Incentive Costs</b>			
B.1	Design & Development			
B.2	Administration			
B.3	Management			
B.4	Marketing			
B.5	Technical Assistance			
B	<b>Subtotal EDC Implementation Costs</b>			
C	<b>EDC Evaluation Costs</b>			
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>			
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES:</b> Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

#### **4.6 Residential Whole Home Appliance Efficiency Program<sup>31</sup>**

The Residential Whole Home Appliance Efficiency Program encourages customers to purchase a high efficiency central air conditioner or heat pump (SEER ratings of 14.5 or greater). To encourage participation and to overcome cost barriers, this program provides rebates (\$100 for SEER of 14.5, \$150 for SEER of 15, and \$200 for SEER of 16 and above) for the purchase of units that exceed the federal energy efficient standard (SEER ratings of 13). To qualify for these rebates under this program, the work must be completed by a certified contractor and a programmable thermostat must be installed. These measures launched in January 2010.

The September 10, 2010 amended EE&C/DR Plan added measures to encourage customers to perform maintenance on existing central air conditioner (CAC) or heat pump (HP) systems. The program also encourages customers to replace electric hot water heaters with new Energy Star domestic hot water storage type units. These additional residential rebate measures were launched in April 2011.

##### **4.6.1 Program Logic**

A program logic model is a visual representation of the program's theory that illustrates a set of interrelated program activities that combine to produce a variety of outputs that lead to key short-, mid- and long-term outcomes. Below is the PY3 Program Logic Model.

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<sup>31</sup> This Program was formally called the Residential ENERGY STAR and High Efficiency Appliance Program.

### Residential Whole Home Appliance Efficiency Program Logic Model

Inputs/ Resources	Sufficient budget is allocated West Penn Power program staff Outside technical resources	Marketing collateral, program website West Penn Power program staff Technical Resource Manual	Marketing materials, program website Rebate coupon packet	West Penn Power program staff Rebate contractor (PFC) Program infrastructure	Project invoices and documentation Rebates Program infrastructure
Activities	<b>Develop Program Infrastructure</b>	<b>Outreach to Trade Allies</b>	<b>Customer Communications</b>	<b>Rebate Application approval</b>	<b>Rebate Measures</b>
Outputs	<p>Program website and West Penn Power tracking system developed (appropriate information is requested, captured and entered into the system)</p> <p>Program measures, forms, rebates and marketing strategy, Technical Resource Manual developed, refined and documented.</p> <p>Changes to the Residential Whole Home Appliance Efficiency Program launched March 15, 2011.</p>	<p>Coordinate with HVAC and hot water heating distributors to obtain contact information for potential trade allies</p> <p>Provide program information, sales training, and marketing support to contractors via direct marketing</p> <p>Participate in energy efficiency fairs and events held by local chapters of HVAC and plumbing associations</p> <p>Involve trade ally feedback to refine program offerings</p>	<p>TV, radio, and print marketing of Residential Whole Home Appliance Efficiency Program on a rotating basis with other efficiency programs</p> <p>Trade allies market program to customers</p>	<p>PFC enters customer application into system</p> <p>PFC validates customer applications, and alerts customer if rebate is rejected</p>	<p>Customers participate in program</p> <p>PFC mails rebate check within six weeks of receipt</p> <p>Quality control conducted, West Penn Power or contractor conducts quality assurance</p>
Short to medium term outcomes	<p>West Penn Power tracking system supports evaluation</p> <p>Program administrative functions ready for launch</p> <p>West Penn Power staff knowledgeable about the program and its resources</p>	<p>Contractors and distributors are knowledgeable about the rebate structure and program guidelines</p> <p>Trade allies provide necessary rebate information to customers and assist with the completion of the application</p> <p>Trade allies regularly communicate the program to customers and include rebate with bids</p>	<p>Program offering is meaningful, clear, and valuable to customers</p> <p>Residential customer's awareness of and participation in the program increases significantly</p>	<p>Customers replace heat pump, central AC, and electric hot water heating equipment with equipment that is higher efficiency than federal standards require</p> <p>Customers conduct maintenance that improves the efficiency of existing HVAC equipment</p> <p>Customers aware of exact rebate amount before installation</p>	<p>12,641 MWh and 4.0 MW savings by the end of 2012</p> <p>Enroll 6,397 participants by the end of 2012</p> <p>Summary reports for West Penn Power program staff</p>
Long term outcomes	<p>Energy saving goals of the Residential Whole Home Appliance Efficiency Program are achieved within budgetary constraints</p>	<p>Increased trade ally stocking and sales of HVAC and water heating equipment with higher efficiency than required by federal standard</p> <p>HVAC contractors more likely to carry equipment necessary for enhanced HVAC tune-up</p> <p>The majority of trade ally population participate and/or recommend energy efficient equipment and services</p> <p>Increased participation of customers in the program</p>	<p>Increased residential customer awareness of, and demand for energy efficiency equipment and services</p>	<p>Ensure that all rebated equipment meets program requirements</p> <p>Increased customer satisfaction with rebate completion process</p>	<p>Increased penetration of energy efficient HVAC and hot water heating equipment among West Penn Power's residential customers</p> <p>Increased frequency of efficiency maintenance on existing HVAC equipment among West Penn Power's residential customers</p>

#### **4.6.2 Program M&V Methodology and Program Sampling**

PY3 evaluation planning is in progress.

#### **4.6.3 Program Sampling**

Refer to Section 4.6.2 above.

#### **4.6.4 Process Evaluation**

PY3 evaluation planning is in progress.

#### **4.6.5 Program Partners and Trade Allies**

Trade ally contractors have been educated over the past several months on the WPP Whole Home Appliance Efficiency Program. This contractor-based strategy centers on outreach with distributors to help identify potential contractors. WPP then implements targeted contractor mailings. Contractors knowledgeable about the program rebates leverage the program rebate to up-sell their customers. In addition, contractors reduce a key customer participation barrier by aiding in the completion of the rebate application form. The form has also been revised since the program's inception to increase application efficiency, with contractor feedback acknowledging its ease of completion as compared to prior form versions.

The company also partners with Columbia Gas and UGI Utilities to promote the ENERGY STAR Domestic Water Heating measure.

Trade allies interviewed for the evaluation feel that the market for high efficiency equipment is strong in Pennsylvania. Most trade allies stated that demand for high efficiency equipment, including heat pumps and air conditioners with a SEER rating above 14, is strong in Pennsylvania. All reported that they actively promote high efficiency equipment to their customers and many noted that customers have become more informed about the benefits of high efficiency equipment over the course of the last ten to fifteen years. As a whole, the trade allies feel that high efficiency equipment makes sense in Pennsylvania; the climate makes high efficiency equipment practical and cost effective, especially for heat pumps.

Interviewed trade allies also reported that there is a strong correlation between demand for high efficiency HVAC equipment and rebate levels. Nearly all of the trade allies interviewed indicated that 2010 was a good year in the HVAC business in Pennsylvania despite the economic downturn. Most attributed this directly to the federal tax credits and rebates offered by the utilities

#### 4.6.6 Program Finances

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

**Table 4-6: Summary of Residential Whole Home Appliance Efficiency Program Finances: TRC Test<sup>32</sup>**

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 61,525	\$ 61,525	\$ 416,225
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	<b>Subtotal EDC Incentive Costs</b>	\$ 61,525	\$ 61,525	\$ 416,225
B.1	Design & Development	\$ 2,326	\$ 2,326	\$ 121,296
B.2	Administration	\$ 8,243	\$ 8,243	\$ 123,540
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 10,937	\$ 10,937	\$ 213,314
B.5	Technical Assistance	\$ 10,591	\$ 10,591	\$ 149,844
B	<b>Subtotal EDC Implementation Costs</b>	\$ 32,097	\$ 32,097	\$ 607,994
C	<b>EDC Evaluation Costs</b>	\$ 32,702	\$ 32,702	\$ 107,612
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>	\$ 126,324	\$ 126,324	\$ 1,131,831
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES:</b> (1) Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

<sup>32</sup> Definitions for terms in following table are subject to TRC Order.

### 4.7 Residential Efficiency Rewards Rate

The Company's amended September 10, 2010 EE&C/DR Plan removed this Smart Meter enabled program to reduce reliance of the Plan on the rapid deployment of Smart Meters.

#### 4.7.1 Program Logic

Not applicable.

#### 4.7.2 Program M&V Methodology

Not applicable.

#### 4.7.3 Program Sampling

Not applicable.

#### 4.7.4 Process Evaluation

Not applicable.

#### 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. *Not applicable.*

**Table 4-7: Summary of Residential Efficiency Rewards Rate Program Finances: TRC Test**

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants			
A.2	EDC Incentives to Trade Allies			
A	<b>Subtotal EDC Incentive Costs</b>			
B.1	Design & Development			
B.2	Administration			
B.3	Management			
B.4	Marketing			
B.5	Technical Assistance			
B	<b>Subtotal EDC Implementation Costs</b>			
C	<b>EDC Evaluation Costs</b>			
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>			
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES:</b> Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

### 4.8 Pay Ahead (Smart) Service Rate

The Company’s amended September 10, 2010 EE&C/DR Plan removed this Smart Meter enabled program to reduce reliance of the Plan on the rapid deployment of Smart Meters.

#### 4.8.1 Program Logic

Not applicable.

#### 4.8.2 Program M&V Methodology

Not applicable.

#### 4.8.3 Program Sampling

Not applicable.

#### 4.8.4 Process Evaluation

Not applicable.

#### 4.8.5 Program Partners and Trade Allies

Not applicable.

#### 4.8.6 Program Finances

A summary of the project finances are presented in Table 4-8. *Not applicable.*

Table 4-8: Summary of Pay Ahead (Smart) Service Rate Program Finances: TRC Test

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants			
A.2	EDC Incentives to Trade Allies			
A	<b>Subtotal EDC Incentive Costs</b>			
B.1	Design & Development			
B.2	Administration			
B.3	Management			
B.4	Marketing			
B.5	Technical Assistance			
B	<b>Subtotal EDC Implementation Costs</b>			
C	<b>EDC Evaluation Costs</b>			
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>			
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES:</b> Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

#### **4.9 Residential Low Income Home Performance Check-Up Audit & Appliance Replacement Program**

The Program consists of a Home Check-Up Audit along with standard installed measures. The auditors will provide and install standard EE&C measures, with the customer's consent. The installed measures are as follows:

- Non Electric Hot Water heating customers – up to 6 CFLs and energy education.
- Electric Hot Water heating customers – 6 CFLs, up to 3 Faucet Aerators, 1 Low Flow Shower Head, and energy education.
- Electric heat and Electric Hot Water heating customers – 6 CFLs, up to 3 Faucet Aerators, 1 Low Flow Shower Head, and energy education.

Under the Appliance Replacement component, the refrigerator and/or room air conditioner may qualify for replacement.

- Refrigerator – The auditor will determine if the customer's existing refrigerator is eligible for replacement based on the age and operational effectiveness. If eligible, the refrigerator will be replaced with a like-size ENERGY STAR model. In addition, should the customer also have an older, inefficient freezer in use, the customer will be provided the opportunity to replace both the refrigerator and freezer with a larger, more efficient refrigerator, so that the freezer may be removed.
- Room Air Conditioner - The auditor will determine if the customer's existing room air conditioner is eligible for replacement based on the age and operational effectiveness. Up to two existing room air conditioners can be replaced.

This Program launched in January 2010.

##### **4.9.1 Program Logic**

A program logic model is a visual representation of the program's theory that illustrates a set of interrelated program activities that combine to produce a variety of outputs that lead to key short-, mid- and long-term outcomes. Below is the PY3 Program Logic Model.

## Residential Low Income Home Performance Check-Up Audit & Appliance Replacement Program Logic Model

Inputs/ Resources	Sufficient budget is allocated	West Penn Power / Dollar Energy	Community action agencies (contractors)	West Penn Power
Activities	<b>Develop Program Infrastructure</b>	<b>Refer and Enroll Customers</b>	<b>Perform Home Performance Check-up</b>	<b>Process Invoices</b>
Resources	West Penn Power program staff Dollar Energy (PA)	Thirteen community action agencies and Dollar Energy	Lowes	Dollar Energy / community action agencies
Outputs	<p>The Low Income Home Performance Check-up Audit and Appliance Replacement Program launched January 1, 2010.</p> <p>Program measures, forms, marketing strategy, Technical Resource Manual developed, refined and documented.</p> <p>Inform contractors and West Penn Power of program requirements and procedures.</p> <p>Centralized on-line tracking system developed and available by program launch date (Dollar Energy)</p>	<p>Identify potentially eligible customers via West Penn Power call center. Customers referred to partnering community action agencies associated with customers' location (by county).</p> <p>Collect household data to confirm eligibility (e.g., rental status, household income at or below 150% FPL)</p> <p>Identify renters in need and obtain approval from landlords. Collect any qualifying information from renters.</p> <p>West Penn Power develops the "Governor's List" of LIHEAP recipients to identify potential LIURP participants based on usage (high is priority). Dollar Energy conducts outbound outreach calls.</p>	<p>Contractor direct installs up to 6 CFLs, 3 faucet aerators, and 1 low flow showerhead. Prioritize high usage faucets/sockets.</p> <p>Identify equipment and service needs in the home that can be funded through LIURP and/or DOE funds.</p> <p>Complete 30 minute walk-through interactive education with customer. Provide and discuss energy usage analysis.</p> <p>Work orders created, documenting measures to be installed and services to be provided through Dollar Energy's online system by contractors.</p> <p>Specifically identify the need for refrigerator replacement (up to 1) and/or room air conditioning replacement (up to 2).</p>	<p>Process invoices for direct installation measures, refrigerators and room air conditioners, and audit services.</p> <p>Receive documentation for all measures that are installed in the home and source of funding for the installation regardless of funding</p> <p>Enter recipient and measure information into Dollar Energy's program database.</p> <p>Date of weatherization is entered into West Penn Power's CIS system for the premise. SAP may in the future include fields for reporting and tracking.</p>
Short to medium term outcomes	<p>Program serves low income customers within annual budget not to exceed \$5.381M through 2012.</p> <p>Program administrative functions ready for launch</p> <p>West Penn Power staff knowledgeable about the program and its resources</p>	<p>Up to 5,085 customers that are in financial need are identified and served through the program through program year 2012</p> <p>Strong communication and referral mechanisms are maintained between West Penn Power and the community action agencies.</p> <p>The program serves multi-family buildings not served through the comprehensive LIURP program.</p>	<p>West Penn Power claims the savings resulting from the audit and direct installation</p> <p>Room air conditioners and refrigerators are properly recycled (West Penn Power contracting with Lowes)</p> <p>Capture energy savings from the multi-unit sector.</p>	<p>6,071 MWh and 1.2 MW savings by the end of 2012</p> <p>LIURP and/or the federal program are able to serve a greater number of households.</p>
Long term outcomes	<p>Energy saving goals of the program are achieved within budgetary constraints</p>	<p>The program serves a higher percentage of low income customers through active identification and enrollment.</p>	<p>Ensure that as many customers as possible receive comprehensive weatherization services.</p> <p>Reduce energy usage and improve customer bill payment behaviors.</p> <p>Customers make behavioral changes based on education provided and reinforced by savings.</p>	<p>Increased penetration of energy efficiency equipment among West Penn Power's low income residential customers</p>

#### 4.9.2 Program M&V Methodology and Program Sampling

PY3 evaluation planning is in progress.

#### 4.9.3 Program Sampling

Refer to Section 4.9.2 above.

#### 4.9.4 Process Evaluation

PY3 evaluation planning is in progress

#### 4.9.5 Program Partners and Trade Allies

Lowe's and Sears provide replacement and recycling of the Refrigerator and Room Air Conditioner component for this program. Dollar Energy Fund staff, private contractors and community action agencies perform in-home energy audits.

#### 4.9.6 Program Finances

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

**Table 4-9: Summary of Residential Low Income Home Performance Check-Up Audit & Appliance Replacement Program Finances: TRC Test<sup>33</sup>**

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 1,125,859	\$ 1,125,859	\$ 3,995,218
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	<b>Subtotal EDC Incentive Costs</b>	\$ 1,125,859	\$ 1,125,859	\$ 3,995,218
B.1	Design & Development	\$ 2,326	\$ 2,326	\$ 26,718
B.2	Administration	\$ 20,720	\$ 20,720	\$ 133,524
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 1,588	\$ 1,588	\$ 10,402
B.5	Technical Assistance	\$ 110,834	\$ 110,834	\$ 399,827
B	<b>Subtotal EDC Implementation Costs</b>	\$ 135,468	\$ 135,468	\$ 570,471
C	<b>EDC Evaluation Costs</b>	\$ 9,931	\$ 9,931	\$ 37,432
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>	\$ 1,271,258	\$ 1,271,258	\$ 4,603,121
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES:</b> (1) Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

<sup>33</sup> Definitions for terms in following table are subject to TRC Order.

#### **4.10 Residential Low Income Joint Utility Usage Management Program**

The program consists of a Home Check-Up Audit with Appliance Replacement and/or LIURP Program measures for gas and electric customers in conjunction with partnering gas utilities.

The program consists of a Home Check-Up Audit along with standard installed measures. The auditors provide and install standard EE&C measures, with the customer's consent. The installed measures are as follows:

- Non Electric Hot Water heating customers – up to 6 CFLs and energy education.
- Electric Hot Water heating customers – 6 CFLs, up to 3 Faucet Aerators, 1 Low Flow Shower Head, and energy education.
- Electric Heat and Electric Hot Water heating customers – 6 CFLs, up to 3 Faucet Aerators, 1 Low Flow Shower Head, and energy education.

Under the Appliance Replacement component, the refrigerator and/or room air conditioner may qualify for replacement.

- Refrigerator – The auditor will determine if the customer's existing refrigerator is eligible for replacement based on the age and operational effectiveness. If eligible, the refrigerator will be replaced with a like-size ENERGY STAR model. In addition, should the customer also have an older, inefficient freezer in use, the customer will be provided the opportunity to replace both the refrigerator and freezer with a larger, more efficient refrigerator, so that the second freezer may be removed.
- Room Air Conditioner - The auditor will determine if the customer's existing room air conditioner is eligible for replacement based on the age and operational effectiveness.

The program may also fund additional measures, such as electric water heaters. This Program launched in January 2010.

##### **4.10.1 Program Logic**

A program logic model is a visual representation of the program's theory that illustrates a set of interrelated program activities that combine to produce a variety of outputs that lead to key short-, mid- and long-term outcomes. Below is the PY3 Program Logic Model.

### Residential Low Income Joint Utility Usage Management Program Logic Model

Inputs/ Resources	Sufficient budget is allocated West Penn Power and gas utility program staff Dollar Energy (PA)	West Penn Power / gas utility Thirteen community action agencies and Dollar Energy	Community action agencies (contractors) Lowe's	West Penn Power, gas utility, and DCED funds Community action agencies	West Penn Power, gas utility, and community action agencies Dollar Energy / community action agencies
Activities	Develop Program Infrastructure	Refer and Enroll Customers	Perform Home Performance Check-up	Weatherize Homes	Process Invoices
<b>Outputs</b>	<p>The Low Income Joint Utility Usage Mangement Program launched January 1, 2010.</p> <p>Establish relationship and procedures with gas utility (e.g., Columbia Gas) and other interested utilities. Understand utility program requirements.</p> <p>Establish income requirements consistent with gas utility's program eligibility (up to 200% FPL)</p> <p>Inform contractors, West Penn Power staff, and gas utility staff of program requirements and procedures.</p> <p>Centralized on-line tracking system developed and available by program launch date (Dollar Energy)</p>	<p>Potentially eligible customers are identified via West Penn Power or gas utility call center. Customers referred to partnering community action agencies or utility.</p> <p>Household data is collected and documented confirming eligibility (e.g., household income at or below 150% FPL, between 150% to 200% FPL, gas heating customer)</p> <p>Referrals are communicated between gas utility, West Penn Power, Dollar Energy, and participating Community Action agency</p> <p>West Penn Power develops the "Governor's List" of their LIHEAP recipients to identify potential LIURP participants based on usage (high is priority). Dollar Energy conducts outbound outreach calls.</p>	<p>Contractor direct installs up to 6 CFLs, 3 faucet aerators, and 1 low flow showerhead</p> <p>Identify equipment and service needs in the home including refrigerators and room air conditioners. Identify both gas and electric opportunities.</p> <p>Specifically identify the need for refrigerator replacement and/or room air conditioning replacement.</p> <p>Complete 30 minute walk-through interactive education with customer. Provide and discuss energy usage analysis.</p> <p>Work orders created, documenting measures to be installed and services to be provided through Dollar Energy's online system by contractors.</p>	<p>Contractors follow work orders developed through the check-up and holistically weatherize home, addressing both cost-effective gas and electric measures</p> <p>DCED, ARRA, and LIURP (gas and electric utility) funding is leveraged where necessary to ensure holistic weatherization</p> <p>Seamless services are provided to customer; customer time is minimized by coordinating services.</p>	<p>Process invoices for electric measures and audit services funded through West Penn Power's JUUMP program.</p> <p>Receive documentation for all measures that are installed in the home and source of funding for the installation regardless of funding</p> <p>Enter recipient and measure information into program database.</p> <p>Savings resulting from households with incomes between 150%-200% FPL are not counted toward low income portfolio goals but contribute to program goals</p> <p>Date of weatherization is entered into West Penn Power's CIS system for the premise. SAP may in the future include fields for reporting and tracking.</p>
<b>Short to medium term outcomes</b>	<p>Program serves low income customers within annual budget not to exceed \$6.363M through 2012.</p> <p>Program administrative functions ready for launch</p> <p>West Penn Power and gas utility staff establish procedures for processing invoices and serving participants</p>	<p>Up to 11,937 customers that are in financial need are identified and served through the program through program year 2012</p> <p>Strong communication and referral mechanisms are maintained between West Penn Power, gas utility, and the community action agencies.</p> <p>Households with higher income levels not eligible for West Penn Power's low income programs (between 150% to 200% FPL) are served.</p>	<p>West Penn Power claims the savings resulting from the audit and direct installation of electric measures</p> <p>Room air conditioners and refrigerators are properly recycled (West Penn Power contracting with Lowes)</p> <p>Appropriate measures and services are identified (cost-effective, health and safety, etc.)</p>	<p>Services address the house as a system, improving overall household conditions</p> <p>Participants maintain high satisfaction in both gas utility and West Penn Power through the program's streamlined services</p> <p>Participant experiences non-energy benefits (e.g., improved comfort, home appearance).</p>	<p>11,319 MWh and 1.2 MW savings by the end of 2012</p> <p>LIURP and/or the federal program are able to serve a greater number of households.</p> <p>West Penn Power identifies the effectiveness of this program model and whether other partnerships should be formed</p>
<b>Long term outcomes</b>	<p>Energy saving goals are achieved within budgetary constraints</p> <p>Procedures are transferrable to other gas utilities with whom West Penn Power partners</p>	<p>The program serves a higher percentage of low income customers through active identification and enrollment.</p> <p>The enrollment and referral mechanisms are effective, efficient, and transferrable should other partnerships be formed.</p>	<p>Ensure that as many customers as possible receive comprehensive weatherization services.</p> <p>Customers make behavioral changes based on education provided and reinforced by savings.</p>	<p>Holistic services provide sustainable saving and reduce households' overall energy burden</p> <p>Participants have an increased energy usage awareness and reduce energy use through behavioral changes</p>	<p>Increased penetration of energy efficiency equipment among West Penn Power's and gas utility low income residential customers</p> <p>The programs, working in cohort with each other, provide comprehensive services to a high percentage of eligible low to moderate income customers</p>

#### 4.10.2 Program M&V Methodology and Program Sampling

PY3 evaluation planning is in progress.

#### 4.10.3 Program Sampling

Refer to Section 4.10.2 above.

#### 4.10.4 Process Evaluation

PY3 evaluation planning is in progress.

#### 4.10.5 Program Partners and Trade Allies

WPP is partnering with Columbia Gas, Equitable Gas and Peoples Gas for the completion of the Home Check-Up Audit and the installation of full program measures. Lowe's and Sears provide replacement and recycling of the Refrigerator and Room Air Conditioner component for this program. Dollar Energy Fund staff, private contractors, and community action agencies perform in-home energy audits.

#### 4.10.6 Program Finances

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

**Table 4-10: Summary of Residential Low Income Joint Utility Usage Management Program Finances: TRC Test<sup>34</sup>**

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 72,934	\$ 72,934	\$ 248,728
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	<b>Subtotal EDC Incentive Costs</b>	\$ 72,934	\$ 72,934	\$ 248,728
B.1	Design & Development	\$ 2,326	\$ 2,326	\$ 22,556
B.2	Administration	\$ 19,398	\$ 19,398	\$ 133,334
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 1,704	\$ 1,704	\$ 9,828
B.5	Technical Assistance	\$ 72,365	\$ 72,365	\$ 178,440
B	<b>Subtotal EDC Implementation Costs</b>	\$ 95,793	\$ 95,793	\$ 344,158
C	<b>EDC Evaluation Costs</b>	\$ 11,319	\$ 11,319	\$ 44,153
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>	\$ 180,046	\$ 180,046	\$ 637,039
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES: (1) Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.</b>				

<sup>34</sup> Definitions for terms in following table are subject to TRC Order.

## 4.11 Residential Low Income Room Air Conditioner Replacement Measure

The Company's amended September 10, 2010 EE&C/DR Plan removed this program.

### 4.11.1 Program Logic

Not applicable.

### 4.11.2 Program M&V Methodology and Program Sampling

Not applicable.

### 4.11.3 Program Sampling

Not applicable.

### 4.11.4 Process Evaluation

Not applicable.

### 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. Expenses incurred reflect costs charged prior to decommissioning.

Table 4-11: Summary of Residential Low Income Room Air Conditioner Replacement Program Finances: TRC Test

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ -	\$ -	\$ -
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	<b>Subtotal EDC Incentive Costs</b>	\$ -	\$ -	\$ -
B.1	Design & Development	\$ -	\$ -	\$ 10,433
B.2	Administration	\$ -	\$ -	\$ 104,377
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ -	\$ -	\$ 2,007
B.5	Technical Assistance	\$ -	\$ -	\$ 54,533
B	<b>Subtotal EDC Implementation Costs</b>	\$ -	\$ -	\$ 171,350
C	<b>EDC Evaluation Costs</b>	\$ -	\$ -	\$ 7,111
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>	\$ -	\$ -	\$ 178,461
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES:</b> (1) Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

## **4.12 Governmental/School/Non-Profit Portfolio Program**

The program encourages government, school, and non-profit customers in WPP's Pennsylvania service territory to upgrade to state-of-the-art energy efficient lighting technologies. The program provides increased incentives and equipment to these customer classes for installing:

- T8 lamps; replacing inefficient lighting
- LED Exit Signs: Replacing or retrofitting existing incandescent exist signs w/LED (provided to the customer at no upfront cost except shipping cost);
- LED Traffic Signals: Retrofit LED packs into existing incandescent units;
- CFLs: Supply CFLs to this customer class via customer application (Provided to the customer at no upfront cost).

This Program launched in April 2010. Changes per the September 10, 2010 filing were launched in the 3<sup>rd</sup> and 4<sup>th</sup> quarters of PY2.

### **4.12.1 Program Logic**

A program logic model is a visual representation of the program's theory that illustrates a set of interrelated program activities that combine to produce a variety of outputs that lead to key short-, mid- and long-term outcomes. Below is the PY3 Program Logic Model.

### Government/Non-profit Lighting Efficiency Program Logic Model

Inputs/Resources	Sufficient budget is allocated West Penn Power program staff Statewide Technical Resource Manual (TRM)	Marketing plan and collateral, program website West Penn Power program staff	Marketing materials and campaign, program website Lighting installation contractors Marketing to LDDA's and other local organizations	West Penn Power program staff; Rebate processor Submitted (mail-in) rebate forms	Program rebate processing (vendor) Incentives budget; possible tax credits; other funding Sales receipt (UPC label)
Activities	<b>Develop Program Infrastructure</b>	<b>Outreach to Trade Allies</b>	<b>Customer Communications</b>	<b>Rebate Application approval</b>	<b>Rebate Measures</b>
Outputs	The Govt/Schools/Non-profit Lighting Program launched 4th quarter of 2009  Program measures defined, forms, rebates and marketing strategy developed, refined and documented  Program website and tracking system developed	Work with the Local Development District Associations (LDDA) and other local organizations to market program to Govt/Non-profits  Provide information to lighting contractors for leveraging federal/state funding (stimulus dollars, tax incentives, grants)  Work with Facilities Engineering Institute (FEI) to promote programs to State Agencies.	Key account managers and trade allies refer eligible customers to the program  Targeted direct communications to Govt/Non-profit customers such as direct mailings and bill inserts  Mass marketing activities, including AP website, business customer newsletter, print and radio mass advertising	Program staff validates customer eligibility  Monthly review of participation rates by program manager  Project data entered into program tracking database	West Penn Power validates customer rebate form and all checklist items completed; payment initiated  Data tracking "opportunity" status to "complete," phase to "paid"; Participants receive rebates in timely manner  Necessary EM&V data collected
Short to medium term outcomes	Program Administrative functions can handle expected application numbers  Tracking system supports program processes, reporting requirements, and evaluation efforts  West Penn Power staff knowledgeable about the program and its resources	Trade allies are knowledgeable about the rebate structure and program guidelines  Trade allies regularly communicate the program to customers and include rebate with lighting installation bids  Increase participation of customers in the program	Program offering is meaningful and customers understand benefits/value  Govt/Non-profit customers' awareness of and participation in the program increases  Customers plan for future program participation in their equipment purchase budget cycles	Customers install lighting equipment that has a higher efficiency than federal standards require  Customers aware of exact rebate amount before installation  Minimize customer dissatisfaction with program by managing customer expectations	59,091 MWh and 13.5 MW savings by the end of 2012 for Govt/Non-profit Lighting  Achieve cumulative TRC of 9.6  Summary reports for West Penn Power program staff
Long term outcomes	Energy saving goals of the Watt Watchers program are achieved within budgetary constraints	Increased trade allies' stocking and sales of lighting equipment with higher efficiency than required by federal standard  The majority of trade allies participate and/or recommend energy efficient equipment	Increased awareness of and demand for energy efficiency lighting in all eligible Govt/Non-profit segments	Monitor participation and modify if necessary marketing, incentive levels, lighting measures offered  Increased satisfaction with pre-approval process	Increased penetration of energy efficiency lighting in all targeted Govt/Non-profit businesses

#### 4.12.2 Program M&V Methodology and Program Sampling

PY3 evaluation planning is in progress.

#### 4.12.3 Program Sampling

Refer to Section 4.12.2 above.

#### 4.12.4 Process Evaluation

PY3 evaluation planning is in progress.

#### 4.12.5 Program Partners and Trade Allies

WPP is leveraging the Local Development District Associations (LDDA) of Pennsylvania to market this program to this customer sector. These associations have established relationships with this target market. The Company is also working with the Facilities Engineering Institute (FEI) to market to PA State entities such as PennDOT, LCB, etc., as they are the contracted energy consultants for these entities by the State of PA.

#### 4.12.6 Program Finances

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

**Table 4-12: Summary of Government/School/Non-Profit Measure Portfolio Program Finances: TRC Test<sup>35</sup>**

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 209,593	\$ 209,593	\$ 616,973
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	<b>Subtotal EDC Incentive Costs</b>	\$ 209,593	\$ 209,593	\$ 616,973
B.1	Design & Development	\$ 2,326	\$ 2,326	\$ 107,826
B.2	Administration	\$ 35,931	\$ 35,931	\$ 335,261
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 593	\$ 593	\$ 18,188
B.5	Technical Assistance	\$ 25,832	\$ 25,832	\$ 145,340
B	<b>Subtotal EDC Implementation Costs</b>	\$ 64,682	\$ 64,682	\$ 606,615
C	<b>EDC Evaluation Costs</b>	\$ 55,231	\$ 55,231	\$ 227,382
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>	\$ 329,506	\$ 329,506	\$ 1,450,970
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES:</b> (1) Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

<sup>35</sup> Definitions for terms in following table are subject to TRC Order.

### **4.13 Commercial HVAC Efficiency Program**

The September 10, 2010 Amended EE&C/DR Plan replaces the incentive for the commercial installation of new energy efficient HVAC units with a \$25 rebate per unit incentive for the annual maintenance of existing HVAC units.

The revised Program was soft launched in June 2011.

#### **4.13.1 Program Logic**

A program logic model is a visual representation of the program's theory that illustrates a set of interrelated program activities that combine to produce a variety of outputs that lead to key short-, mid- and long-term outcomes. Below is the PY3 Program Logic Model capturing approved changes.

### Commercial HVAC Efficiency Program Logic Model

<b>Inputs/ Resources</b>	Sufficient budget is allocated	Program website	Program website	Program infrastructure
	West Penn Power program staff	West Penn Power program staff	Key account managers and trade allies	Incentives budget; possible tax credits; other funding
	Statewide Technical Resource Manual	Presentation materials	Direct mail campaign materials	Project invoices, receipts, and documentation
<b>Activities</b>	<b>Develop Program Infrastructure</b>	<b>Outreach to Trade Allies</b>	<b>Customer Communications</b>	<b>Rebate Measures</b>
<b>Outputs</b>	The Commercial HVAC Efficiency Program launches March 18, 2011 (all receipts dated after Jan 13, 2011 will be accepted).	Participate in events sponsored by local HVAC association chapters and attend energy efficiency fairs	Conduct a direct mailing campaign to Large Industrial customers who perform annual HVAC Maintenance with on-staff HVAC personnel	West Penn Power validates customer project and initiates payment
	Program measures defined, forms, rebates and marketing strategy developed, refined and documented.		Account managers and trade allies refer customers to the program	Participants receive rebates in timely manner
	Program website and tracking system developed		Targeted direct communications to business customers and other outreach such as newsletters, energy efficiency fairs	Necessary EM&V data collected
<b>Short to medium term outcomes</b>	Program administrative functions ready for launch	Trade allies are knowledgeable about the rebate structure and program guidelines	Program offering is meaningful and customers understand benefits/value	3,665 MWh and 1.8 MW savings by the end of 2012
	Tracking system supports program processes, reporting requirements, and evaluation efforts	Trade allies regularly communicate the program to customers and include rebate with maintenance contracts	Business customers' awareness of and participation in the program increases	Provide rebates for 57,344 participants by the end of 2012
	West Penn Power staff knowledgeable about the program and its resources	Increase participation of customers in the program	Educate customers on the availability of incentives from other sources	Summary reports for West Penn Power program staff
<b>Long term outcomes</b>	Energy saving goals of the Commercial HVAC program are achieved within budgetary constraints	The majority of trade allies participate and/or recommend efficiency maintenance	Increased awareness of and demand for efficiency maintenance in all business segments	Increased frequency of efficiency maintenance on HVAC equipment in all business segments

#### 4.13.2 Program M&V Methodology and Program Sampling

PY3 evaluation planning is in progress.

#### 4.13.3 Program Sampling

Refer to Section 4.13.2 above.

#### 4.13.4 Process Evaluation

PY3 evaluation planning is in progress

#### 4.13.5 Program Partners and Trade Allies

WPP is developing a network of residential/commercial HVAC distributors/dealers that will be used to promote/implement the Commercial HVAC Maintenance Program. This program was soft launched in June 2011 and we have had no participation in this program to date.

#### 4.13.6 Program Finances

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

Table 4-13: Summary of Commercial HVAC Efficiency Program Finances: TRC Test<sup>36</sup>

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 1,966	\$ 1,966	\$ 2,191
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	<b>Subtotal EDC Incentive Costs</b>	\$ 1,966	\$ 1,966	\$ 2,191
B.1	Design & Development	\$ 2,326	\$ 2,326	\$ 92,006
B.2	Administration	\$ 4,413	\$ 4,413	\$ 178,095
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 1,187	\$ 1,187	\$ 30,521
B.5	Technical Assistance	\$ 4,971	\$ 4,971	\$ 120,056
B	<b>Subtotal EDC Implementation Costs</b>	\$ 12,897	\$ 12,897	\$ 420,678
C	<b>EDC Evaluation Costs</b>	\$ 10,670	\$ 10,670	\$ 37,858
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>	\$ 25,533	\$ 25,533	\$ 460,727
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES:</b> (1) Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

<sup>36</sup> Definitions for terms in following table are subject to TRC Order.

#### **4.14 Commercial Products Efficiency Program<sup>37</sup>**

The Commercial Products Efficiency Program encourages small and large, commercial, and industrial customers to upgrade to state-of-the-art energy efficient lighting technologies. The Company's September 10, 2010 amended EE&C/DR Plan revised the Commercial Lighting Efficiency Program, and renamed Commercial Products Efficiency Program to expand the eligible lighting measures, including CFLs , by leveraging the June 2010 Technical Reference Manual update. This provides the opportunity for more customers to participate in the program and for additional energy and demand savings due to the addition of different lighting types and sizes that are contained in Appendix C of the Technical Reference Manual.

The program provides rebates to Commercial & Industrial customers for installing:

- T8 lamps: Replacing T12 lamps and other inefficient lighting
- T5 lights: Replacing high-intensity discharge (HID) and other inefficient lighting
- Occupancy Sensors (wall-plate style sensors to replace conventional switches)
- Power Strips (controlling lights and appliances)
- LED Exit Signs: Replacing incandescent exit signs
- CFLs: Replacing incandescent bulbs and/or fixtures

The Program launched in February 2010. Program changes were implemented in PY2 Q4.

##### **4.14.1 Logic**

A program logic model is a visual representation of the program's theory that illustrates a set of interrelated program activities that combine to produce a variety of outputs that lead to key short-, mid- and long-term outcomes. Below is the PY3 Program Logic Model capturing approved changes.

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<sup>37</sup> This Program was previously called the Commercial Lighting Efficiency Program.

### Commercial Products Efficiency Program Logic Model

<b>Inputs/ Resources</b>	Sufficient budget is allocated  West Penn Power program staff  Statewide Technical Resource Manual (TRM)	Marketing plan and collateral, program website  West Penn Power program staff	Marketing materials and campaign, program website  Lighting installation contractors  POS Rebate packet	West Penn Power program staff; Rebate processor  Submitted (mail-in) rebate forms	Program rebate processing (vendor)  Incentives budget; possible tax credits; other funding  Sales receipt (UPC label)
<b>Activities</b>	<b>Develop Program Infrastructure</b>	<b>Outreach to Trade Allies</b>	<b>Customer Communications</b>	<b>Rebate Application approval</b>	<b>Rebate Measures</b>
<b>Outputs</b>	The Commercial Lighting Efficiency Program was launched 1st quarter of 2010. Smart Strips and CFL components will be launched on March 18, 2011 (rebates will be retroactive back to Jan 13, 2011)  Program measures defined, forms, rebates and marketing strategy developed, refined and documented.  Program website and tracking system developed	Key account managers work with lighting installers to market program to eligible customers  Information to lighting contractors for leveraging federal/state funding (stimulus dollars, tax incentives, grants)	Key account managers and trade allies refer customers to the program  Targeted direct communications to business customers such as seminars, workshops, bill inserts, and direct mailings  Mass marketing activities, including AP website, business customer newsletter, print and radio mass advertising	Program staff validates customer eligibility  Monthly review of participation rates by program manager  Project data entered into program tracking database	West Penn Power validates customer rebate form and all checklist items completed; payment initiated  Data tracking "opportunity" status to "complete," phase to "paid"; Participants receive rebates in timely manner  Necessary EM&V data collected
<b>Short to medium term outcomes</b>	Program Administrative functions can handle expected application numbers  Tracking system supports program processes, reporting requirements, and evaluation efforts  West Penn Power staff knowledgeable about the program and its resources	Trade allies are knowledgeable about the rebate structure and program guidelines  Trade allies regularly communicate the program to customers and include rebate with lighting installation bids  Increase participation of customers in the program	Program offering is meaningful and customers understand benefits/value  Business customers' awareness of and participation in the program increases  Customers plan for future program participation in their equipment purchase budget cycles	Customers install equipment that has a higher efficiency than federal standards require  Customers aware of exact rebate amount before installation  Minimize customer dissatisfaction with program by managing customer expectations	256,837 MWh and 51.6 MW savings by the end of 2012 for Commercial Lighting  Achieve cumulative TRC of 6.2  Summary reports for West Penn Power program staff
<b>Long term outcomes</b>	Energy saving goals of the program are achieved within budgetary constraints	Increased trade allies' stocking and sales of lighting equipment with higher efficiency than required by federal standard  The majority of trade allies participate and/or recommend energy efficient equipment	Increased awareness of and demand for energy efficiency lighting in all eligible business segments	Monitor participation and modify if necessary marketing, incentive levels, measures offered  Increased satisfaction with pre-approval process	Increased penetration of energy efficient lighting and power management in all targeted business

**4.14.2 Program M&V Methodology and Program Sampling**

PY3 evaluation planning is in progress

**4.14.3 Program Sampling**

Refer to Section 4.14.2 above.

**4.14.4 Process Evaluation**

PY3 evaluation planning is in progress.

**4.14.5 Program Partners and Trade Allies**

WPP has established partnerships with PennTAP (Fayette & Greene Counties) and ALL Facilities (Westmoreland County). WPP is also partnering with the Hite Company, Scott Electric and other lighting trade allies to promote the Act 129 Programs to commercial and industrial customers. In addition, the Company is providing Act 129 presentations to local Chambers of Commerce, at trade shows and other public events throughout its service territory.

**4.14.6 Program Finances**

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

**Table 4-14: Summary of Commercial Products Efficiency Program Finances: TRC Test<sup>38</sup>**

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 131,462	\$ 131,462	\$ 474,395
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	<b>Subtotal EDC Incentive Costs</b>	\$ 131,462	\$ 131,462	\$ 474,395
B.1	Design & Development	\$ 2,326	\$ 2,326	\$ 108,342
B.2	Administration	\$ 62,744	\$ 62,744	\$ 362,761
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 2,546	\$ 2,546	\$ 17,439
B.5	Technical Assistance	\$ 37,638	\$ 37,638	\$ 153,160
B	<b>Subtotal EDC Implementation Costs</b>	\$ 105,254	\$ 105,254	\$ 641,702
C	<b>EDC Evaluation Costs</b>	\$ 67,936	\$ 67,936	\$ 249,005
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>	\$ 304,652	\$ 304,652	\$ 1,365,102
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES:</b> (1) Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

<sup>38</sup> Definitions for terms in following table are subject to TRC Order.

#### **4.15 Custom Technology Applications Program**

This program is targeted to improve the efficiency of customer operations through the application of custom measures that will result in energy usage reduction and improved operating efficiency identified and verified through an onsite energy audit.

The program focuses on improving the energy efficiency for specific processes and applications such as: lighting systems, compressed air, chillers, refrigeration, variable speed drives, motors, energy management systems, fan and pump systems, renewable energy, LED, and combined heat-power systems, for which there are no current prescriptive measures offered.

The Custom Technology Applications Program is focused on reducing energy use and demand in the small and large, commercial and industrial and governmental/non-profit customers with usage of 1 million to 2.5 million kWh / year. Customers are eligible for up to 25% of the capital investment, and up to \$100,000 of the project cost to obtain the energy and demand savings.

This program along with the Custom Applications Program absorbed the Commercial and Industrial Drives Program effective January 2011 for all new approved customer applications.

This program launched in March 2010.

##### **4.15.1 Program Logic**

A program logic model is a visual representation of the program's theory that illustrates a set of interrelated program activities that combine to produce a variety of outputs that lead to key short-, mid- and long-term outcomes. Below is the PY3 Program Logic Model capturing approved changes.

### Custom Technology Applications Program Logic Model

<b>Inputs/ Resources</b>	Sufficient budget is allocated. West Penn Power program staff. Statewide Technical Resource Manual.	Marketing materials and campaign, program website. Key account managers. Rebate packet.	West Penn Power program staff. Submitted pre-qualification form.	Program infrastructure. Incentives budget; possible tax credits; other funding. Project invoices, receipts, and documentation.
<b>Activities</b>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; background-color: #d1ecf1;"><b>Develop Program Infrastructure</b></div> <span>→</span> <div style="border: 1px solid black; padding: 5px; background-color: #d1ecf1;"><b>Customer Communications</b></div> <span>→</span> <div style="border: 1px solid black; padding: 5px; background-color: #d1ecf1;"><b>Rebate Application Pre-approval</b></div> <span>→</span> <div style="border: 1px solid black; padding: 5px; background-color: #d1ecf1;"><b>Rebate Measures</b></div> </div>			
<b>Outputs</b>	<p>The Custom Technology Apps Program launched March 1, 2010. Program measures defined, forms, rebates and marketing strategy developed, refined and documented.</p> <p>Rebate levels developed (25% of capital investment not to exceed \$100,000).</p> <p>Program website and tracking system developed.</p>	<p>Account managers identify customers for the program and solicit applications.</p>	<p>West Penn Power approves customer applications with dollar limit.</p> <p>Site visits at Program Manager's direction.</p> <p>Project data entered into program tracking database.</p>	<p>West Penn Power validates customer project and initiates payment.</p> <p>Participants receive rebates in timely manner.</p> <p>Necessary EM&amp;V data collected.</p>
<b>Short to medium term outcomes</b>	<p>Program administrative functions ready for launch.</p> <p>Tracking system supports program processes, reporting requirements, and evaluation efforts.</p> <p>West Penn Power staff knowledgeable about the program and its resources.</p>	<p>Program offering is meaningful and customers understand benefits/value.</p> <p>Business customers' awareness of and participation in the program increases.</p> <p>Customers decides to participate and submits pre-qualification forms for approval.</p> <p>Educate customers on the availability of incentives from other sources.</p>	<p>Customer installs measures outlined in application.</p> <p>Customers aware of exact rebate amount before installation.</p> <p>Minimize customer dissatisfaction with program by managing customer expectations.</p>	<p>19,910 MWh and 3.5 MW savings by the end of 2012.</p> <p>Provide rebates for 57 participants by the end of 2012.</p> <p>Rebate reduces the payback period for customers.</p> <p>Summary reports for West Penn Power program staff.</p>
<b>Long term outcomes</b>	<p>Energy saving goals of the Custom Tech Apps program are achieved within budgetary constraints.</p>	<p>Increased awareness of and demand for energy efficiency equipment in all business segments.</p>	<p>Insure that incentivized equipment meets program requirements.</p>	<p>Increased penetration of energy efficiency equipment in all business segments.</p>

#### 4.15.2 Program M&V Methodology and Program Sampling

PY3 evaluation planning is in progress.

#### 4.15.3 Program Sampling

Refer to Section 4.15.2 above.

#### 4.15.4 Process Evaluation

PY3 evaluation planning is in progress.

#### 4.15.5 Program Partners and Trade Allies

WPP has joined the Pennsylvania Rural Water Association and Pennsylvania Municipal Authority Association to help promote and advertise this program.

#### 4.15.6 Program Finances

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

Table 4-15: Summary of Custom Technology Applications Program Finances: TRC Test<sup>39</sup>

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 174,881	\$ 174,881	\$ 328,891
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	<b>Subtotal EDC Incentive Costs</b>	\$ 174,881	\$ 174,881	\$ 328,891
B.1	Design & Development	\$ 2,326	\$ 2,326	\$ 99,183
B.2	Administration	\$ 25,160	\$ 25,160	\$ 209,654
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 901	\$ 901	\$ 24,572
B.5	Technical Assistance	\$ 50,050	\$ 50,050	\$ 168,886
B	<b>Subtotal EDC Implementation Costs</b>	\$ 78,437	\$ 78,437	\$ 502,295
C	<b>EDC Evaluation Costs</b>	\$ 20,240	\$ 20,240	\$ 46,681
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>	\$ 273,558	\$ 273,558	\$ 877,867
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES:</b> (1) Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

<sup>39</sup> Definitions for terms in following table are subject to TRC Order.

#### **4.16 Time of Use (TOU) with Critical Peak Pricing Rate**

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.

A limited deployment is planned for the 3<sup>rd</sup> quarter 2011 with full rollout starting in the 4<sup>th</sup> quarter of 2011.

##### **4.16.1 Program Logic**

Program Logic will be determined in PY3.

##### **4.16.2 Program M&V Methodology**

Program M&V Methodology will be determined in PY3.

##### **4.16.3 Program Sampling**

Program Sampling will be determined in PY3.

##### **4.16.4 Process Evaluation**

Process Evaluation will be determined in PY3.

##### **4.16.5 Program Partners and Trade Allies**

Program Partners and Trade Allies are to be determined.

#### 4.16.6 Program Finances

A summary of the project finances are presented in Table 4-16.

Costs associated with this program in CPITD reflect initial administrative cost.

**Table 4-16: Summary of Time of Use (TOU) with Critical Peak Pricing Rate Program Finances: TRC Test<sup>40</sup>**

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ -	\$ -	\$ -
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	<b>Subtotal EDC Incentive Costs</b>	\$ -	\$ -	\$ -
B.1	Design & Development	\$ 2,326	\$ 2,326	\$ 4,898
B.2	Administration	\$ 311	\$ 311	\$ 28,482
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 573	\$ 573	\$ 14,325
B.5	Technical Assistance	\$ 1,921	\$ 1,921	\$ 23,662
B	<b>Subtotal EDC Implementation Costs</b>	\$ 5,131	\$ 5,131	\$ 71,367
C	<b>EDC Evaluation Costs</b>	\$ 6,453	\$ 6,453	\$ 11,399
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>	\$ 11,584	\$ 11,584	\$ 82,766
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES:</b> Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

<sup>40</sup> Definitions for terms in following table are subject to TRC Order.

### 4.17 Hourly Pricing Option (HPO) Rate

The Company's amended September 10, 2010 EE&C/DR Plan removed this Smart Meter enabled program to reduce reliance of the Plan on the rapid deployment of Smart Meters.

#### 4.17.1 Program Logic

Not applicable.

#### 4.17.2 Program M&V Methodology

Not applicable.

#### 4.17.3 Program Sampling

Not applicable.

#### 4.17.4 Process Evaluation

Not applicable.

#### 4.17.5 Program Partners and Trade Allies

Not applicable.

#### 4.17.6 Program Finances

A summary of the project finances are presented in Table 4-17. Not applicable.

Table 4-17: Summary of Hourly Pricing Option (HPO) Rate Program Finances: TRC Test

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants			
A.2	EDC Incentives to Trade Allies			
A	<b>Subtotal EDC Incentive Costs</b>			
B.1	Design & Development			
B.2	Administration			
B.3	Management			
B.4	Marketing			
B.5	Technical Assistance			
B	<b>Subtotal EDC Implementation Costs</b>			
C	<b>EDC Evaluation Costs</b>			
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>			
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES:</b> Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

#### **4.18 Custom Applications Program**

This program encourages energy and demand reductions for commercial and industrial customers by providing custom rewards for highly specialized processes and applications. The program will focus on improving the energy efficiency for specific processes and applications, such as: lighting systems, compressed air, chillers, refrigeration, variable speed drives, motors, energy management systems, fan and pump systems, combined heat-power systems, and other relevant measures, for which there are no current prescriptive measures offered.

The customer is eligible for up to 50% of the customer's total capital project cost, with a per project cap of \$500,000. Awards will be based on a review of kWh savings per project's cost.

This program along with the Custom Technology Applications Program absorbed the Commercial and Industrial Drives Program effective January 2011 for all new approved customer applications.

This Program launched in March 2010.

##### **4.18.1 Program Logic**

A program logic model is a visual representation of the program's theory that illustrates a set of interrelated program activities that combine to produce a variety of outputs that lead to key short-, mid- and long-term outcomes. Below is the PY3 Program Logic Model.

**Custom Applications Program Logic Model**

<b>Inputs/ Resources</b>	Sufficient budget is allocated . West Penn Power program staff. Statewide Technical Resource Manual.	Marketing materials and campaign, program website. Key account managers. Rebate packet.	West Penn Power program staff. Submitted pre-qualification form.	Program infrastructure. Incentives budget; possible tax credits; other funding. Project invoices, receipts, and documentation.
<b>Activities</b>	<b>Develop Program Infrastructure</b> →	<b>Customer Communications</b> →	<b>Rebate Application Pre-approval</b> →	<b>Rebate Measures</b>
<b>Outputs</b>	The C&I Custom Apps Program launched March 1, 2010. Program measures defined, forms, rebates and marketing strategy developed, refined and documented. Program website and tracking system developed.	Account managers identify customers for the program and solicit bids. Pre-qualified customers receive a detailed audit from an ESCO.	West Penn Power approves customer applications with dollar limit. Site visits at Program Manager's direction. Project data entered into program tracking database.	West Penn Power validates customer project and initiates payment. Participants receive rebates in timely manner. Necessary EM&V data collected.
<b>Short to medium term outcomes</b>	Program administrative functions ready for launch. Tracking system supports program processes, reporting requirements, and evaluation efforts. West Penn Power staff knowledgeable about the program and its resources.	Program offering is meaningful and customers understand benefits/value. Business customers' awareness of and participation in the program increases. Customers decides to participate and submits pre-qualification forms for approval. Educate customers on the availability of incentives from other sources.	Customer installs measures outlined in application. Customers aware of exact rebate amount before installation. Minimize customer dissatisfaction with program by managing customer expectations.	74,261 MWh and 14.6 MW savings by the end of 2012. Provide rebates for 21 participants by the end of 2012. Rebate reduces the payback period for customers. Summary reports for West Penn Power program staff.
<b>Long term outcomes</b>	Energy saving goals of the C&I Custom Applications program are achieved within budgetary constraints.	Increased awareness of and demand for energy efficiency equipment in all business segments.	Insure that incentivized equipment meets program requirements.	Increased penetration of energy efficiency equipment in all business segments.

#### **4.18.2 Program M&V Methodology and Program Sampling**

PY3 evaluation planning is in progress.

#### **4.18.3 Program Sampling**

Refer to Section 4.18.2 above.

#### **4.18.4 Process Evaluation**

PY3 evaluation planning is in progress

#### **4.18.5 Program Partners and Trade Allies**

WPP has joined the Pennsylvania Rural Water Association and Pennsylvania Municipal Authority Association to help promote and advertise this program.

#### 4.18.6 Program Finances

A summary of the project finances are presented in Table 4-18.

Table 4-18 Summary of Custom Applications Program Finances: TRC Test<sup>41</sup>

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 678,041	\$ 678,041	\$ 1,090,974
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	<b>Subtotal EDC Incentive Costs</b>	\$ 678,041	\$ 678,041	\$ 1,090,974
B.1	Design & Development	\$ 2,326	\$ 2,326	\$ 340,397
B.2	Administration	\$ 51,901	\$ 51,901	\$ 310,340
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 5,556	\$ 5,556	\$ 22,074
B.5	Technical Assistance	\$ 187,399	\$ 187,399	\$ 605,083
B	<b>Subtotal EDC Implementation Costs</b>	\$ 247,182	\$ 247,182	\$ 1,277,894
C	<b>EDC Evaluation Costs</b>	\$ 22,826	\$ 22,826	\$ 45,891
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>	\$ 948,049	\$ 948,049	\$ 2,414,759
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES:</b> (1) Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

<sup>41</sup> Definitions for terms in following table are subject to TRC Order.

#### **4.19 Customer Load Response Program**

West Penn Power will assist customers by providing load management services by actively educating and providing assistance with the transition to market prices, load shaping, participation in PJM energy and capacity markets, and advanced metering technology. 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.

This program marketing was launched in April 2011 with a limited number of events planned to begin in July 2011. This pilot will test predictive modeling developed to determine the top 100 peak hours as well as customers' acceptance of the program.

##### **4.19.1 Program Logic**

Program Logic will be determined in PY3.

##### **4.19.2 Program M&V Methodology**

Program M&V Methodology will be determined in PY3.

##### **4.19.3 Program Sampling**

Program Sampling will be determined in PY3.

##### **4.19.4 Process Evaluation**

Process Evaluation will be determined in PY3.

##### **4.19.5 Program Partners and Trade Allies**

This program is being implemented by WPP.

#### 4.19.6 Program Finances

A summary of the project finances are presented in Table 4-19. Charges incurred to date are associated with design and development as well as program start-up costs.

**Table 4-19 Summary of Customer Load Response Program Finances: TRC Test<sup>42</sup>**

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ 6,781	\$ 6,781	\$ 6,781
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	<b>Subtotal EDC Incentive Costs</b>	\$ 6,781	\$ 6,781	\$ 6,781
B.1	Design & Development	\$ 2,326	\$ 2,326	\$ 86,486
B.2	Administration	\$ 10,276	\$ 10,276	\$ 39,975
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 285	\$ 285	\$ 1,983
B.5	Technical Assistance	\$ 6,931	\$ 6,931	\$ 37,672
B	<b>Subtotal EDC Implementation Costs</b>	\$ 19,818	\$ 19,818	\$ 166,116
C	<b>EDC Evaluation Costs</b>	\$ 3,538	\$ 3,538	\$ 12,720
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>	\$ 30,137	\$ 30,137	\$ 185,617
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES:</b> Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

<sup>42</sup> Definitions for terms in following table are subject to TRC Order.

## **4.20 Customer Resources Demand Response Program**

The Customer Resources Demand Response Program is focused on reducing kW demand by deploying customer load and generation resources. PJM Curtailment Service Providers will provide services to register and dispatch customer curtailable load during targeted hours of WPP's 100 hours of highest demand. WPP has contracted with a PJM Curtailment Service Provider to deliver a contracted amount of curtailable load. The PJM Curtailment Service Providers will structure individual contracts with customers to respond to curtailment event notices issued by WPP to the customer's CSP. PJM Curtailment Service Providers and customers will have flexibility in selecting how many hours that they can participate with 50 hours being typical.

WPP will pay the PJM Curtailment Service Providers based on the actual load reduction that occurred during the curtailment events, based on the contracted rate established through an RFP process. A customer who participates in this program will be provided an incentive by their Curtailment Service Provider according to the Curtailment Service Provider's contract with the customer for each hour the customer's load is dispatched under this program. All payments to the customer will be from the customer's Curtailment Service Provider. In order for the customer to realize the maximum benefits from participating in WPP's demand response programs, the customer's Curtailment Service Provider must also register the customer's load in the available PJM load response programs.

The program marketing was launched in April 2011 with a limited number of events planned to begin in July 2011. This pilot will test predictive modeling developed to determine the top 100 peak hours as well as customers' acceptance of the program. A 3<sup>rd</sup> party curtailment service provider is under contract to register, recruit, and dispatch load curtailments.

### **4.20.1 Program Logic**

Program Logic will be determined in PY3.

### **4.20.2 Program M&V Methodology**

Program M&V Methodology will be determined in PY3.

### **4.20.3 Program Sampling**

Program Sampling will be determined in PY3.

### **4.20.4 Process Evaluation**

Process Evaluation will be determined in PY3.

### **4.20.5 Program Partners and Trade Allies**

A 3<sup>rd</sup> party curtailment service provider, Energy Connect, Inc., is under contract to register, recruit, and dispatch load curtailments.

#### 4.20.6 Program Finances

A summary of the project finances are presented in Table 4-20. Charges incurred to date are associated with design and development as well as program start-up costs.

Table 4-20 Summary of Customer Resources Demand Response Program Finances: TRC Test<sup>43</sup>

	Category	IQ	PYTD	CPITD
A.1	EDC Incentives to Participants	\$ -	\$ -	\$ -
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	<b>Subtotal EDC Incentive Costs</b>	\$ -	\$ -	\$ -
B.1	Design & Development	\$ 2,326	\$ 2,326	\$ 4,518
B.2	Administration	\$ 13,056	\$ 13,056	\$ 45,482
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 384	\$ 384	\$ 2,082
B.5	Technical Assistance	\$ 226,337	\$ 226,337	\$ 248,078
B	<b>Subtotal EDC Implementation Costs</b>	\$ 242,103	\$ 242,103	\$ 300,160
C	<b>EDC Evaluation Costs</b>	\$ 3,868	\$ 3,868	\$ 16,654
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>	\$ 245,971	\$ 245,971	\$ 316,814
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES: (1)</b> Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

<sup>43</sup> Definitions for terms in following table are subject to TRC Order.

## **4.21 Commercial and Industrial Drives Program**

The Company's amended September 10, 2010 EE&C/DR Plan removed this program and instead provides for the installation of energy efficient drives through the Company's existing Custom Technology Applications and Custom Applications Programs.

### **4.21.1 Program Logic**

Not applicable.

### **4.21.2 Program M&V Methodology and Program Sampling**

Not applicable.

### **4.21.3 Program Sampling**

Not applicable.

### **4.21.4 Process Evaluation**

Not applicable.

### **4.21.5 Program Partners and Trade Allies**

Not applicable.

### **4.21.6 Program Finances**

A summary of the project finances are presented in Table 4-21. Expenses reflected include costs for customer approved applications received prior to approval to decommission received in January 2011.

**Table 4-21 Summary of Commercial & Industrial Drives Program Finances: TRC Test<sup>44</sup>**

	<b>Category</b>	<b>IQ</b>	<b>PYTD</b>	<b>CPITD</b>
A.1	EDC Incentives to Participants	\$ -	\$ -	\$ 10,350
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
<b>A</b>	<b>Subtotal EDC Incentive Costs</b>	\$ -	\$ -	\$ 10,350
B.1	Design & Development	\$ -	\$ -	\$ 323,418
B.2	Administration	\$ -	\$ -	\$ 186,729
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ -	\$ -	\$ 12,249
B.5	Technical Assistance	\$ -	\$ -	\$ 307,833
<b>B</b>	<b>Subtotal EDC Implementation Costs</b>	\$ -	\$ -	\$ 830,229
<b>C</b>	<b>EDC Evaluation Costs</b>	\$ -	\$ -	\$ 15,697
<b>D</b>	<b>SWE Audit Costs</b>			
<b>E</b>	<b>Participant Costs</b>			
	<b>Total Costs</b>	\$ -	\$ -	\$ 856,276
<b>F</b>	<b>Annualized Avoided Supply Costs</b>			
<b>G</b>	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES:</b> (1) Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

<sup>44</sup> Definitions for terms in following table are subject to TRC Order.

## **4.22 Distributed Generation Program**

Customers will contract with a Distributed Generation 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 WPP during the targeted hours of WPP'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 WPP's hours of highest demand.

In order for the customer to realize the maximum benefits from participating in WPP's demand response programs, the customer's Curtailment Service Provider must also register the customer's load in the PJM load response programs. The customer can choose any registered Curtailment Service Provider and WPP will provide potential customers with a list of the PJM Curtailment Service Providers that can register their load in the PJM markets. To assist with marketing and customer recruitment, WPP will provide a list of the potential customer generators to PJM Curtailment Service Providers.

The program marketing was launched in April 2011 with a limited number of events planned to begin in July 2011. This pilot will test predictive modeling developed to determine the top 100 peak hours as well as customers' acceptance of the program. A 3<sup>rd</sup> party distributed generation manager is under contract to dispatch load curtailments.

### **4.22.1 Program Logic**

Program Logic will be determined in PY3.

### **4.22.2 Program M&V Methodology**

Program M&V Methodology will be determined in PY3.

### **4.22.3 Program Sampling**

Program Sampling will be determined in PY3.

### **4.22.4 Process Evaluation**

Program Evaluation will be determined in PY3.

### **4.22.5 Program Partners and Trade Allies**

A 3<sup>rd</sup> party distributed generation manager, Power Secure, is under contract to dispatch load curtailments.

### **4.22.6 Program Finances**

A summary of the project finances are presented in Table 4-22.

**Table 4-22 Summary of Distributed Generation Program Finances: TRC Test<sup>45</sup>**

	<b>Category</b>	<b>IQ</b>	<b>PYTD</b>	<b>CPITD</b>
A.1	EDC Incentives to Participants	\$ -	\$ -	\$ -
A.2	EDC Incentives to Trade Allies	\$ -	\$ -	\$ -
A	<b>Subtotal EDC Incentive Costs</b>	\$ -	\$ -	\$ -
B.1	Design & Development	\$ 2,326	\$ 2,326	\$ 3,947
B.2	Administration	\$ 1,268	\$ 1,268	\$ 34,441
B.3	Management	\$ -	\$ -	\$ -
B.4	Marketing	\$ 79	\$ 79	\$ 1,777
B.5	Technical Assistance	\$ 1,537	\$ 1,537	\$ 23,278
B	<b>Subtotal EDC Implementation Costs</b>	\$ 5,210	\$ 5,210	\$ 63,443
C	<b>EDC Evaluation Costs</b>	\$ -	\$ -	\$ -
D	<b>SWE Audit Costs</b>			
E	<b>Participant Costs</b>			
	<b>Total Costs</b>	\$ 5,210	\$ 5,210	\$ 63,443
F	<b>Annualized Avoided Supply Costs</b>			
G	<b>Lifetime Avoided Supply Costs</b>			
	<b>Total Lifetime Economic Benefits</b>			
	<b>Portfolio Benefit-to-Cost Ratio</b>			
<b>NOTES:</b> Analysis associated with Benefit-to-Cost calculations on hold pending TRC Technical Work Group output.				

<sup>45</sup> Definitions for terms in following table are subject to TRC Order.