

Quarterly Report to the Pennsylvania Public Utility Commission

**For the Period
March 1, 2013 through May 31, 2013
Program Year 4, Quarter 4**

For Pennsylvania Act 129 of 2008
Energy Efficiency and Conservation Plan

Prepared by Pennsylvania Power Company and ADM Associates, Inc.

For

Pennsylvania Power Company
Docket No. M-2009-2112956

July 15, 2013

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Acronyms

C & I	Commercial and Industrial
CATI	Computer-Aided Telephone Interview
CFL	Compact Fluorescent Lamp
CPITD	Cumulative Program/Portfolio Inception to Date
CPITD-Q	Cumulative Program/Portfolio Inception through Current Quarter
CVR	Conservation Voltage Reduction
CVRf	Conservation Voltage Reduction factor
DLC	Direct Load Control
EDC	Electric Distribution Company
EE&C	Energy Efficiency and Conservation
EM&V	Evaluation, Measurement, and Verification
HVAC	Heating, Ventilating, and Air Conditioning
IQ	Incremental Quarter
kW	Kilowatt
kWh	Kilowatt-hour
LED	Light Emitting Diode
LEEP	Low-Income Energy Efficiency Program
LIURP	Low-Income Usage Reduction Program
M&V	Measurement and Verification
MW	Megawatt
MWh	Megawatt-hour
NTG	Net-to-Gross
PUC	Public Utility Commission
PY1	Program Year 2009
PY2	Program Year 2010
PY3	Program Year 2011
PY4	Program Year 2012
PY4TD	Program/Portfolio Year Four to Date
SEER	Seasonal Energy Efficiency Rating
SWE	Statewide Evaluator
TRC	Total Resource Cost
TRM	Technical Reference Manual

1 Overview of Portfolio

Pennsylvania Act 129 of 2008 signed on October 15, 2008, mandated energy savings and demand reduction goals for the largest electric distribution companies (EDCs) in Pennsylvania. Each EDC submitted energy efficiency and conservation (EE&C) plans—which were approved by the Pennsylvania Public Utility Commission (PUC)—pursuant to these goals. This report documents the progress and effectiveness of the EE&C accomplishments for Pennsylvania Power Company (“Penn Power” or “Company”) in the fourth quarter of Program Year Four (PY4) defined as March 1, 2013 through May 31, 2013, as well as the cumulative accomplishments of the programs since inception.

Based on preliminary results, Penn Power successfully achieved the May 31, 2013 targets for Energy Efficiency and Peak Demand Reductions.

The results depicted in this fourth quarter report (Preliminary Annual Report) of Program Year Four (PY4) include all MWh/MW savings and associated dollars through May 31, 2013. However, additional program savings are still being processed for projects that were installed by May 31, 2013 and are not yet reflected in these preliminary results. These additional savings will be included in the final Annual Report to be filed November 15, 2013.

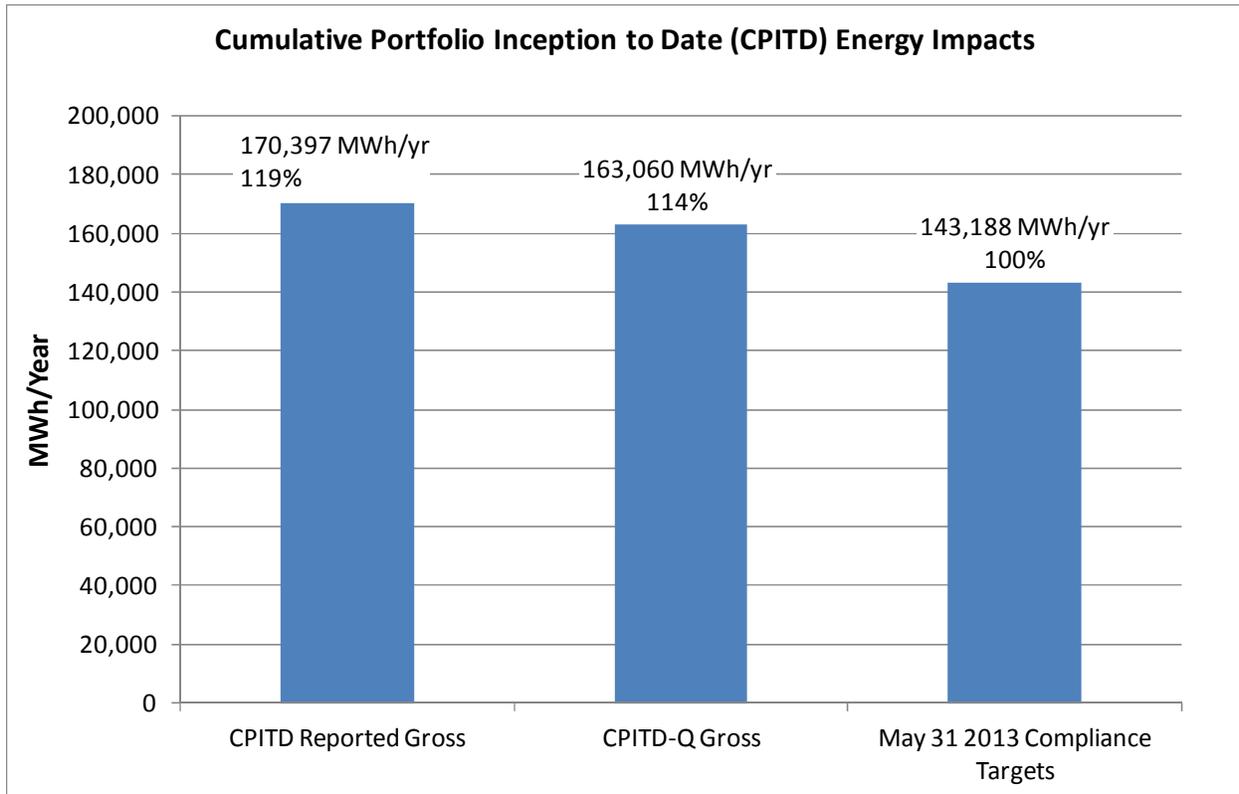
1.1 Summary of Achievements

Penn Power has achieved 119 percent of the May 31, 2013 energy savings compliance target, based on cumulative program inception to date (CPITD) reported gross energy savings¹, and 114 percent of the energy savings compliance target, based on verified CPITD gross energy savings through Plan Year 3 and PYTD gross energy savings achieved through Quarter 4 (CPITD-Q)², as shown in Figure 1.1.

¹ CPITD Reported Gross Savings = CPITD Reported Gross Savings through PY3 + PYTD Reported Gross Savings. All savings reported as CPITD reported gross savings are computed this way.

² CPITD-Q Gross Savings = CPITD Verified Gross Savings through PY3 + PYTD Reported Gross Savings. All savings reported as CPITD-Q gross savings are computed this way. CPITD-Q savings provide the best available estimate of savings achieved through the current quarter. CPITD Verified Gross Savings will be reported in the annual report.

Figure 1-1 Cumulative Portfolio Inception to Date (CPITD) Energy Impacts

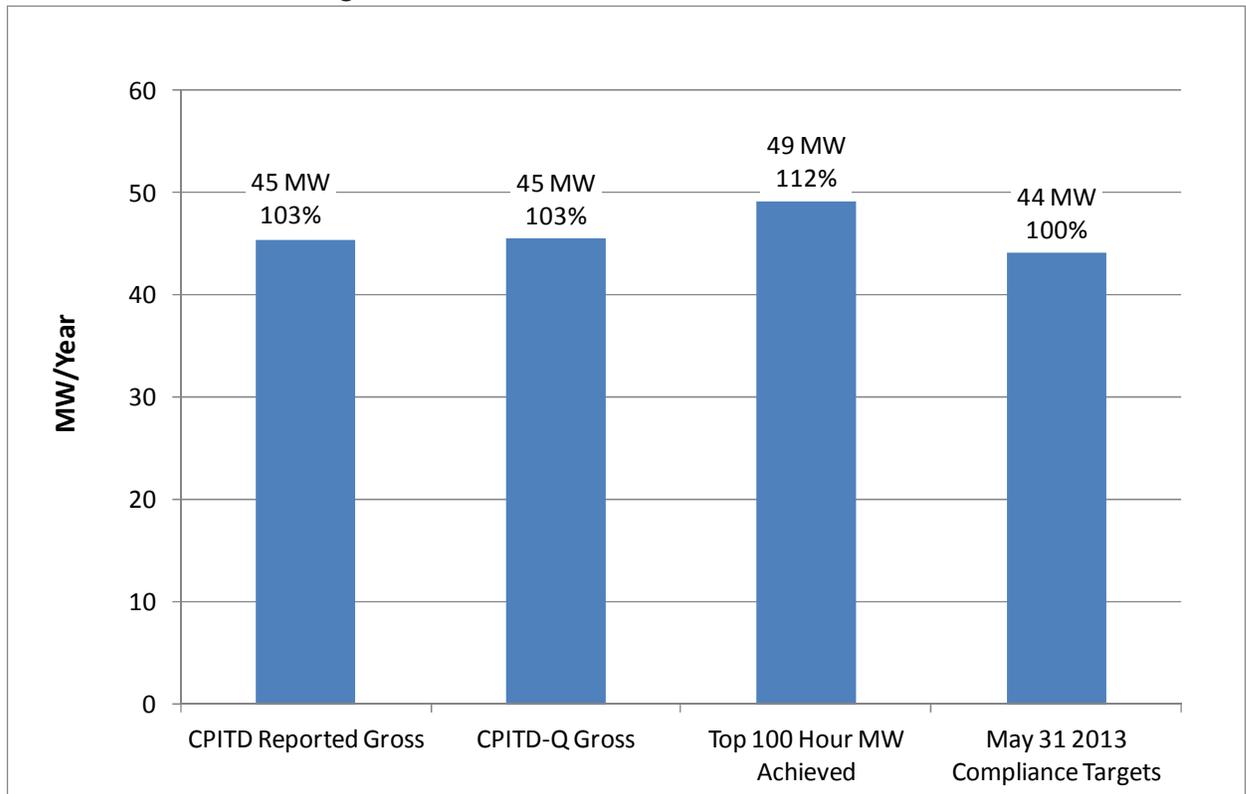


Based on preliminary results, Penn Power has achieved 49 MW of load reductions at the generator level during the Top 100 hours of 2012, representing 112 percent of the May 31, 2013 demand reduction compliance target as shown in **Figure 1-2**³. Please note that this includes contributions from energy efficiency programs and contributions from demand reduction programs operated during the summer of 2012. When including all measures installed to date, the Company achieved 45 MW of cumulative peak

³ These figures include contributions from energy efficiency programs through PY4Q4, although the contributions from PY4 may change based on program realization rates and on a more refined accounting of measures operable prior to the top 100 hours. The peak demand reductions from all residential CFLs distributed CPITD has been updated to account for factors such as the alignment of the CFL hourly savings profile with actual top 100 hours, additional savings from space cooling interactive effects, and CFLs from residential programs installed in nonresidential applications. The 'Top 100 Hour Achieved' figures also include line loss factors calculated as functions of actual and reconstructed (for Act 129 "addbacks") loads for each hour.

load reductions at the meter level based on verified CPITD reported gross demand reductions through Plan Year 3 and PYTD gross demand reductions achieved through Quarter 4 (CPITD-Q).

Figure 1-2. CPITD Portfolio Demand Reduction⁴



There are 7 measures available to the low-income sector. The measures offered to the low-income sector therefore comprise 17 percent of the total measures offered. As required by Act 129, this exceeds the fraction of the electric consumption of the utility’s low-income households divided by the total electricity consumption in the Penn Power territory. (11 percent).⁵ The CPITD reported gross energy

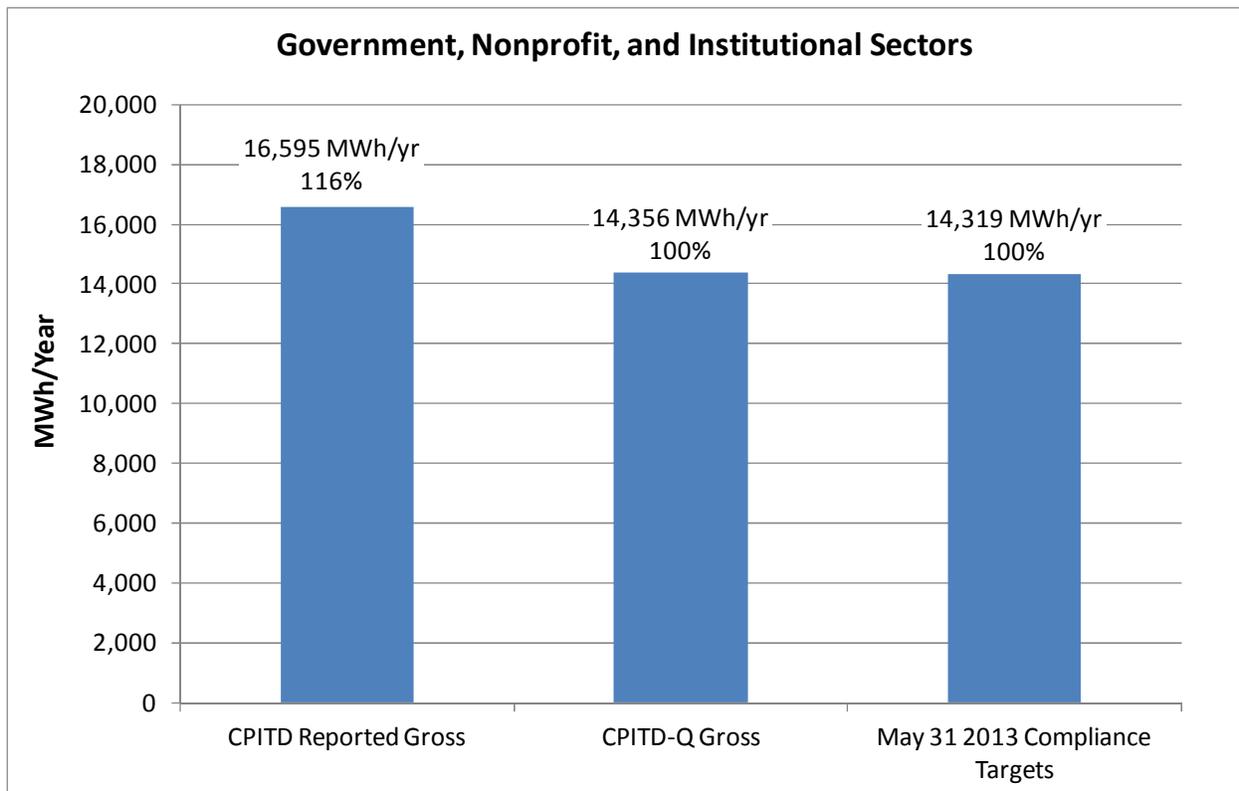
⁴ CPITD reported and CPITD-Q numbers include impacts *at the meter level* for all programs through PY4Q4. The top 100 hour achieved MW reflect preliminary verified values achieved during the top 100 hours of the summer of 2012 (defined as June 1 through September 30, 2012), and include impacts of demand response programs, line losses, and impacts from EE measures installed prior to the top 100 hours. The peak demand reductions from all residential CFLs distributed CPITD has been updated to account for factors such as the alignment of the CFL hourly savings profile with actual top 100 hours, additional savings from space cooling interactive effects, and CFLs from residential programs installed in nonresidential applications.

⁵ Act 129 includes a provision requiring electric distribution companies to offer a number of energy efficiency measures to low-income households that are “proportionate to those households’ share of the total energy usage in the service territory.” 66 Pa.C.S. §2806.1(b)(i)(G).

savings achieved in the low-income sector is 17,623 MWh/yr; this is 10 percent of the CPITD total portfolio reported gross energy savings⁶.

Penn Power achieved 116 percent of the May 31, 2013, energy reduction compliance target for government, nonprofit and institutional sector, based on CPITD reported gross energy savings, and 100 percent of the target based on verified CPITD gross energy savings through Plan Year 3 and PYTD gross energy savings achieved through Quarter 4 (CPITD-Q)⁷, as shown in **Figure 1-3**. Additional savings to this sector may accrue as the remaining applications received prior to May 31, 2013 are processed and evaluated.

Figure 1-3 Government, Nonprofit, and Institutional Sectors



⁶ The Energy Savings achieved in the low-income sector in the PY4Q2 report are calculated according to the procedure in the PY3 Annual report (page 14). This is a shift from the previous calculation procedure that was used for the PY4Q1 report, and the new methodology results in smaller claimed impacts, thus the adjustment from the PY4Q1 report.

⁷ Reference footnote 2 on page 4.

1.2 Program Updates and Findings

- **Residential Demand Reduction Program:** This program was operated between June 1 and September 30, 2012. . No changes to this program during PY4Q4.
- **Residential Home Energy Audits and Outreach Program:** There are three (3) components to this program. The Online audit and Whole House Comprehensive audit components for all PA companies were not changed during PY4Q4. There was one slight change to the Walk Thru audit program; the \$50 participation fee was waived beginning in October 2012 in an effort to boost participation and will continue through May 31, 2013.
- **Residential Appliance Turn-In Program:** No changes to this program during PY4Q4.
- **Residential Energy Efficiency HVAC Program:** No changes to this program during PY4Q4.
- **Residential Energy Efficient Products Program:** No changes to this program during PY4Q4.
- **Residential New Construction Program:** No changes to this program during PY4Q4.
- **Residential Behavioral Modification and Education Program:** No changes to this program during PY4Q4.
- **Residential Multiple Family Program:** No changes to this program during PY4Q4.
- **Residential Low-Income (WARM) Programs:** No changes to this program during PY4Q4.
- **Commercial / Industrial Small Sector Equipment Program:** No changes to this program during PY4Q4.
- **Commercial / Industrial Large Sector Performance Contracting / Equipment Program:** No changes to this program during PY4Q4.
- **Commercial / Industrial Large Sector Demand Response Program – CSP Mandatory and Voluntary Curtailment Program (“PJM Demand Response”):** This program was operated between June 1 and September 30, 2012. As of this writing, the gross / net impact evaluation effort is underway.
- **Governmental / Non-Profit Street Lighting Program:** No changes to this program during PY4Q4.
- **Governmental / Non-Profit Program:** No changes to this program during PY4Q4.
- **Governmental / Remaining Non-Profit Program:** No changes to this program during PY4Q4.

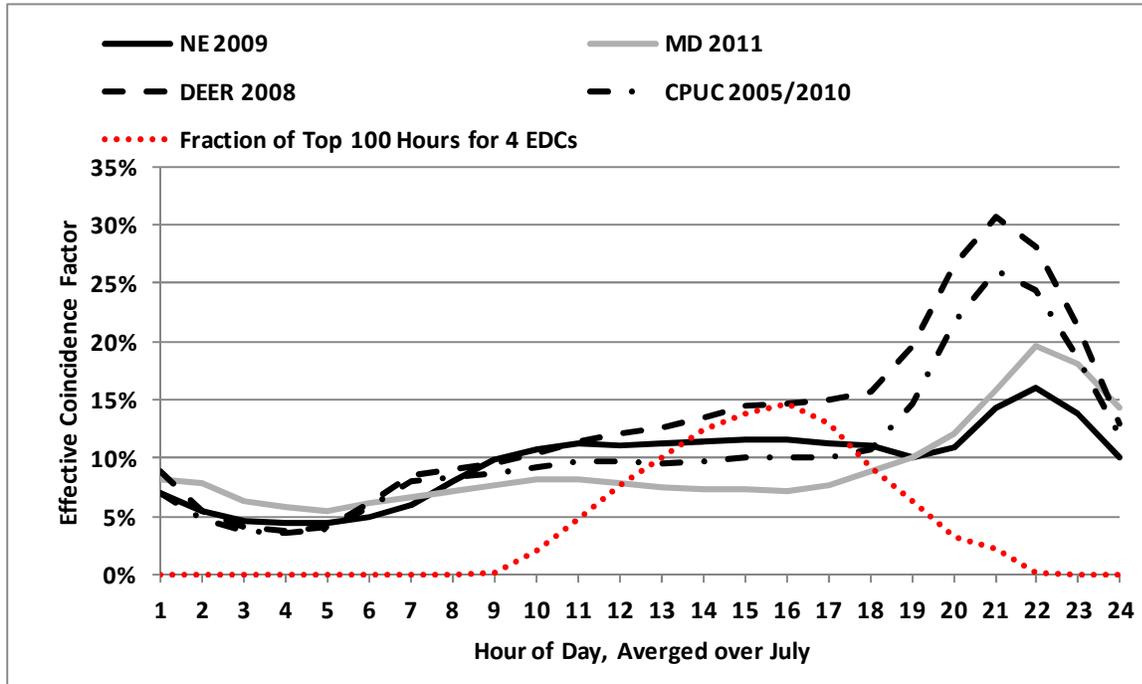
1.3 Evaluation Updates and Findings

- **Portfolio Level CPITD CFL Top 100 hour Impacts Assessment**

Penn Power’s evaluator, ADM, has updated the portfolio-level top 100 hour impacts with a preliminary assessment of the top-100 hour impacts from CFLs. The coincidence factor of 5% stipulated in the TRM is significantly lower than coincidence factors from recent and relevant CFL

metering studies, as can be inferred from Figure 1-4. The 5% coincidence factor does not reflect the full peak demand reduction benefits of CFLs.

Figure 1-4 CFL hourly Savings profiles from recent studies.



ADM has developed an hourly energy savings profile that accounts for the following factors:

- An updated load shape for CFLs. The load shape in the solid black profile is chosen for this analysis because it results from the largest study (in terms of number of homes metered and number of lighting loggers deployed) in a geographically comparable region. ADM has also constructed a separate load shape for CFLs that are installed outdoors. The fraction of CFLs installed outdoors is taken from the PA Residential baseline study conducted by the SWE team.
- Cooling interactive effects are carefully developed based on data regarding CFL installation areas and heating/cooling system types and prevalence. All data are taken from the PA Residential baseline study conducted by the SWE team.
- The coincidence factors also account for “cross-sector” sales. This is an important consideration because CFLs in the nonresidential sector typically have higher hours of use and higher peak demand coincidence factors. Although Penn Power is compliant with Act 129 energy and demand reduction goals without consideration for cross sector sales, Penn Power will report the top 100 hour demand reductions that reflect the additional demand reduction contribution associated with cross sector sales. The fraction of CFLs that are rebated by residential programs, but are ultimately installed in nonresidential settings will be determined through in-store intercept interviews and reflected in the final annual report.

- **Residential Demand Reduction Program**

Impact evaluation for this program is complete.

- **Residential Home Energy Audits and Outreach Program**

This program has three distinct components: (i) conservation kits sent to customers that complete online or telephone home energy audits; (ii) direct installation of low cost measures; and (iii), comprehensive walk through audits with direct installation of low-cost measures coupled with incentives on capital cost improvements. The conservation kits have accounted for the vast majority of the program impacts in PY4. Preliminary realization rates have been constructed from information gained from the evaluation effort conducted for PY3, coupled with baseline changes in the 2012 TRM. These will be updated as PY4 evaluation survey results become available.

Table 1.3.1 Residential Home Energy Audits and Outreach Program Evaluation Summary

Program Component	Evaluation Activities Planned	Evaluation Activities Status
Conservation Kits	Conduct up to 23 on-site visits and several hundred online surveys.	ADM has conducted desk reviews of the tracking data and has constructed preliminary realization rates that consider historical “in service rates” and successful delivery rates, as well as changes in the TRM protocols.
Direct Install of Low-Cost Measures	Sample once for entire PY4, conduct engineering review and verification surveys.	ADM has conducted a brief desk review of tracking data. So far, the direct install components contribute about 1% of total program savings.
Whole House Comprehensive Audits with Capital Cost Measures Installed	Sample once for entire PY4, conduct engineering review and verification surveys.	ADM has conducted a brief desk review of tracking data. So far, the direct install components contribute about 1% of total program savings.

- **Residential Appliance Turn-In Program**

Preliminary realization rates have been constructed from information gained from the evaluation effort conducted for PY3. These will be updated as PY4 evaluation survey results become available.

Table 1.3.2 Residential Appliance Turn-In Program Evaluation Summary

Program Component	Evaluation Activities Planned	Evaluation Activities Status
Refrigerator	Tracking System/TRM Review Verification Surveys	ADM has conducted preliminary desk reviews. Participant surveys will start in late Summer, 2013.
Freezer		
Room air conditioner		

- **Residential Energy Efficiency HVAC Program**

The sampling scheme for this program includes four qualitative strata. Evaluation activities for the strata are listed below. Preliminary realization rates are based on information gained from the PY3 evaluation. These will be updated as PY4 evaluation results become available.

Table 1.3.3 Residential Energy Efficiency HVAC Program Evaluation Summary

Program Component	Evaluation Activities Planned	Evaluation Activities Status
Air Source Heat Pump	Invoice + calculation On-Site inspection	PY4 evaluation activities to date include calculation and ex-ante reviews and assignment of preliminary realization rate based on desk review and application of updated TRM protocols. The average efficiencies and capacities from the PY3 evaluation are used to generate preliminary realization rates for this program. On-site verification visits and verification surveys should be completed by September 2013.
Ground Source Heat Pump	Invoice + calculation review On-Site inspection	
Central Air Conditioning	Invoice + calculation review On-Site inspection	
HVAC tune-ups	Invoice + calculation review Telephone Verification Survey	

- **Residential Energy Efficient Products Program**

The sampling scheme for this program includes several qualitative strata for lighting and appliances. Evaluation activities for the strata are listed below.

Table 1.3.4 Residential Energy Efficient Products Program Evaluation Summary

Program Component	Evaluation Activities Planned	Evaluation Activities Status
CFL Buydowns	Invoice + calculation review	PY4 evaluation activities to date include calculation and ex-ante reviews and assignment of preliminary realization rate based on desk review and application of updated TRM protocols.
CFL Giveaways	Invoice + calculation review	
Appliances	Invoice + calculation review (large sample, stratified by appliance type) On-Site inspection (smaller sample, focus on clothes washers)	

- **Residential New Construction Program:**

This program accounts for less than 1% of the PYTD portfolio impacts.

Table 1.3.5 Residential New Construction Program Evaluation Summary

Program Component	Evaluation Activities Planned	Evaluation Activities Status
New Homes	Stratified Sample REM/Rate modeling and calculation review (largest sample) Implementer QC Inspection review (smaller sample) On-Site inspection (smallest sample)	ADM has met with the implementer to discuss the results of last year’s evaluation. ADM has reviewed tracking data to identify projects that may have potential modeling issues related to ground source heat pumps. The projects approved so far do not appear likely to have such modeling issues.

- **Residential Behavioral Modification and Education Program**

The impact evaluation effort for this program will involve billing analysis. M&V plans have been completed and initial data requests have been made by the M&V team.

- **Residential Multiple Family Program**

This program accounts for less than 1% of the PYTD portfolio impacts. The program recruits multifamily housing management or maintenance staff to distribute or install conservation kits that contain CFLs and LED night lights. The evaluation sample is stratified with multifamily housing complexes as the sampling units.

Table 1.3.6 Residential Multiple Family Program Evaluation Summary

Program Component	Evaluation Activities Planned	Evaluation Activities Status
Conservation Kits	Telephone Verification Surveys	No sampling or surveying has occurred yet. ADM will begin sampling for surveys when the program population size is sufficiently large relative to the expected PY4 population size.

- **Residential Low-Income (WARM) Programs**

For the PY4 evaluation, ADM will conduct billing analysis of all WARM Plus participants from PY3. The results of the billing analysis will be averaged with the PY3 evaluation results to develop deemed savings for the PY4 installations.

Table 1.3.7 Residential Low-Income (WARM) Programs Evaluation Summary

Program Component	Evaluation Activities Planned	Evaluation Activities Status
WARM Plus	Billing analysis planned on PY3 participants.	ADM has conducted desk reviews and has applied preliminary realization rates defined as the ratio of the verified per-unit savings from the PY3 evaluation to the reported per-unit savings in the PY4 tracking data.
WARM Extra Measures	Invoice + calculation review, verification survey.	ADM has conducted a preliminary review of the tracking data. Verification surveys will occur late in the evaluation cycle.

- **Commercial / Industrial Small Sector Equipment Program**

This program offers energy efficiency measures to small commercial/industrial customers. The impact evaluation utilizes stratified sampling. First, the population is stratified into qualitative strata that consist of standardized measure groups as listed below. Each qualitative stratum may contain several quantitative strata based on the expected magnitude of the impacts. The sample sizes are based on past program experience regarding the variability of the realization rates for sampled projects.

Table 1.3.8 Commercial / Industrial Small Sector Equipment Program Evaluation Summary

Program Component	Evaluation Activities Planned	Evaluation Activities Status
“Lighting for Business” Applications	Stratified sampling and on-site visits	Samples through PY4Q4 are drawn and on-site work is expected to continue through September.
Prescriptive HVAC, Motor, and Refrigeration Applications	Stratified sampling and on-site visits	Samples through PY4Q4 are drawn and on-site work is expected to continue through September.
Custom Applications	Stratified sampling and on-site visits	All large (above 1 GWh) custom projects have been sampled with certainty and evaluated.

- **Commercial / Industrial Large Sector Performance Contracting / Equipment Program**

This program offers similar measures as the Small C/I and Government Equipment programs. The evaluation approach for this program is similar to the one employed for the Small C/I program.

Table 1.3.9 Commercial / Industrial Large Sector Equipment Program Evaluation Summary

Program Component	Evaluation Activities Planned	Evaluation Activities Status
“Lighting for Business” Applications	Stratified sampling and on-site visits	Samples through PY4Q4 are drawn and on-site work is expected to continue through September.
Prescriptive HVAC, Motor, and Refrigeration Applications	Stratified sampling and on-site visits	Samples through PY4Q4 are drawn and on-site work is expected to continue through September.
Custom Applications	Stratified sampling and on-site visits	All large (above 1 GWh) custom projects have been sampled with certainty and evaluated.

- **Commercial / Industrial Large Sector Demand Response Program – CSP Mandatory and Voluntary Curtailment Program (“PJM Demand Response”)**

Impact evaluation for this program is complete on a preliminary basis⁸. The evaluation effort involved stratified sampling and inspection of the hourly demand reduction calculations for selected projects. Projects that have base load estimation protocols accepted by and registered by PJM are evaluated on the basis of those protocols. Projects that do not have PJM registrations are evaluated with protocols that are identical to or similar to the PJM base load estimation protocols.

⁸ Site-level hourly impacts verified on a preliminary basis are undergoing final quality assurance checks for a stratified sample of projects to meet ±15% relative precision at the 85% confidence level. However the top 100 hour definitions and the hourly line loss factors may change based on the additional contributions from energy efficiency projects that are not yet evaluated.

- **Governmental / Non-Profit Street Lighting Program**

This program accounts for less than 1% of the PYTD portfolio impacts.

Table 1.3.10 Governmental / Non-Profit Street Lighting Program Evaluation Summary

Program Component	Evaluation Activities Planned	Evaluation Activities Status
“Street and Area Lights” Applications	Stratified sampling and on-site visits	Samples through PY4Q4 are drawn and on-site work is expected to continue through September.

- **Governmental / Non-Profit Program:**

This program accounts for less than 1% of the PYTD portfolio impacts.

Table 1.3.11 Governmental / Non-Profit Program Evaluation Summary

Program Component	Evaluation Activities Planned	Evaluation Activities Status
“ Lighting for Business” Applications	Stratified sampling and on-site visits	Samples through PY4Q4 are drawn and on-site work is expected to continue through September.
Prescriptive HVAC, Motor, and Refrigeration Applications	Stratified sampling and on-site visits	Samples through PY4Q4 are drawn and on-site work is expected to continue through September.
Custom Applications	Stratified sampling and on-site visits	All large (above 1 GWh) custom projects have been sampled with certainty and evaluated.

- **Governmental / Remaining Non-Profit Program:**

This program offers similar measures as the Large and Small C/I Equipment programs. The evaluation approach for this program is similar to the one employed for the Small C/I program.

Table 1.3.11 Governmental / Remaining Non-Profit Program Evaluation Summary

Program Component	Evaluation Activities Planned	Evaluation Activities Status
“Lighting for Business” Applications	Stratified sampling and on-site visits	Samples through PY4Q4 are drawn and on-site work is expected to continue through September.
Prescriptive HVAC, Motor, and Refrigeration Applications	Stratified sampling and on-site visits	Samples through PY4Q4 are drawn and on-site work is expected to continue through September.
Custom Applications	Stratified sampling and on-site visits	All large (above 1 GWh) custom projects have been sampled with certainty and evaluated.

2 Summary of Energy Impacts by Program

A summary of the reported energy savings by program is presented in **Figure 2-1**.

Figure 2-1. CPITD Reported Gross Energy Savings by Program

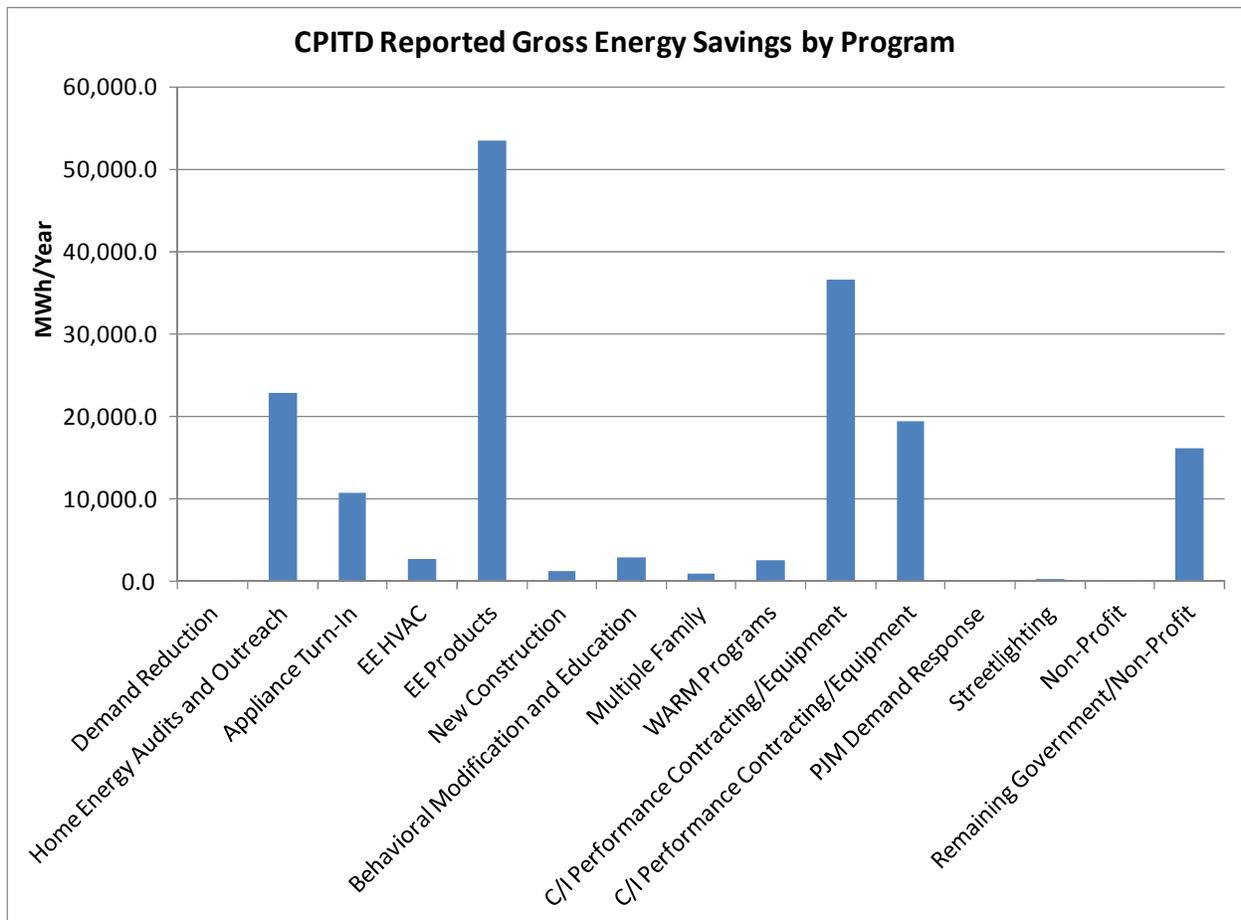
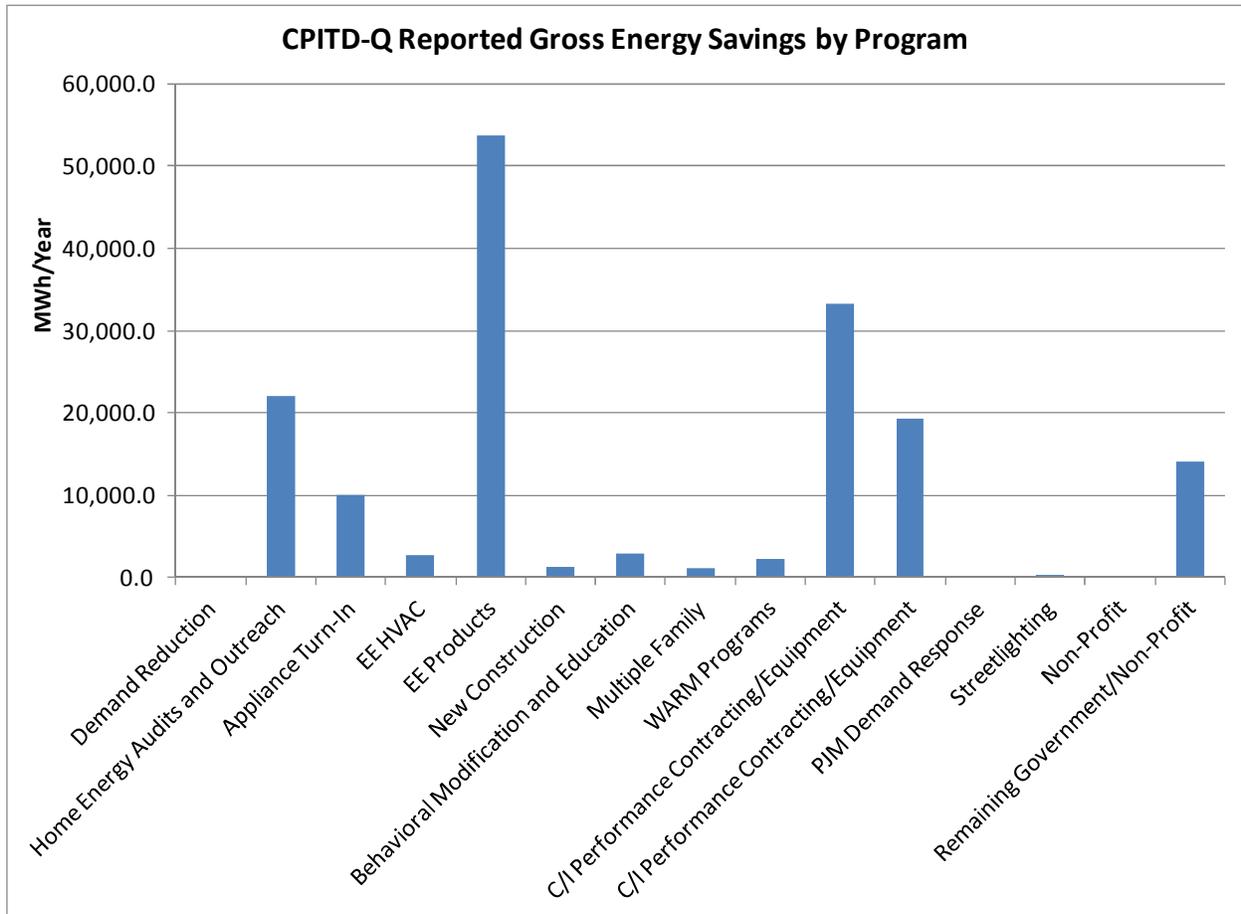


Figure 2-2. CPITD-Q Reported Gross Energy Savings by Program



A summary of energy impacts by program through PY4Q4 is presented in **Table 2-1**.

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

Program	Participants			Reported Gross Impact				Preliminary Realization Rate ¹
	(MWh/Year)							
	IQ	PYTD	CPITD	IQ	PYTD	CPITD	CPITD-Q	PYTD
Demand Reduction	-2	-62	2,661	n/a	74	74	74	n/a
Home Energy Audits and Outreach	1,279	18,700	38,646	819	11,875	22,853	22,146	88.2%
Appliance Turn-In	367	1,653	6,007	644	2,883	10,805	9,998	77.8%
EE HVAC	196	1,478	4,052	209	888	2,737	2,752	81.0%
EE Products	22,644	101,129	301,580	4,126	17,856	53,512	53,733	89.1%
New Construction	5	76	458	7	122	1,286	1,248	n/a
Behavioral Modification and Education	0	28,231	28,231	803	2,885	2,885	2,885	n/a
Multiple Family	0	3	2,958	0	51	1,021	1,072	100.0%
WARM Programs	0	0	4,908	0	0	2,554	2,271	n/a
Small C/I Equipment	26	128	319	2,660	10,311	36,650	33,209	95.0%
Large C/I Equipment	6	19	65	1,648	4,734	19,420	19,312	95.0%
PJM Demand Response	0	50	50	0	5	5	5	95.0%
Street lighting	0	0	127	0	0	247	246	95.0%
Non-Profit	0	0	4	0	0	90	37	95.0%
Remaining Government/Non-Profit	20	37	119	2,919	3,563	16,258	14,073	95.0%
TOTAL PORTFOLIO	24,541	151,442	390,185	13,833	55,248	170,397	163,060	n/a

NOTES:

1. Preliminary Realization Rates are based on evaluation activities and findings conducted on a partial sample set. These realization rates are not based on a statistically significant sample and are subject to change until the full evaluation is complete at the end of the program year. In this report, the realization rates for residential programs are based on tracking system review, incorporation of TRM updates, and historical verification/in-service rates. For nonresidential programs, a preliminary placeholder of 95% is used based on historical program performance.

3 Summary of Demand Impacts by Program

A summary of the reported demand reduction by program is presented in **Figure 3-1**.

Figure 3-1. CPITD Reported Demand Reduction by Program.

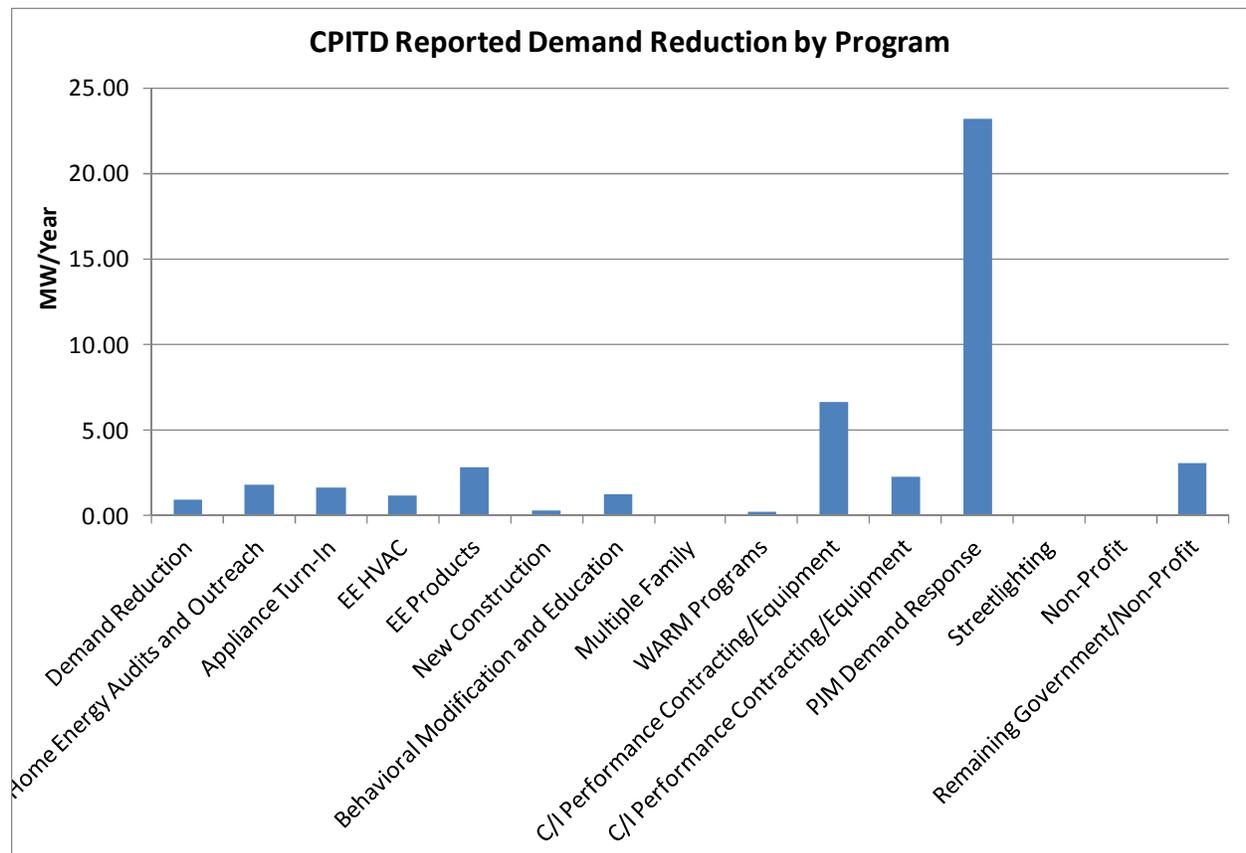
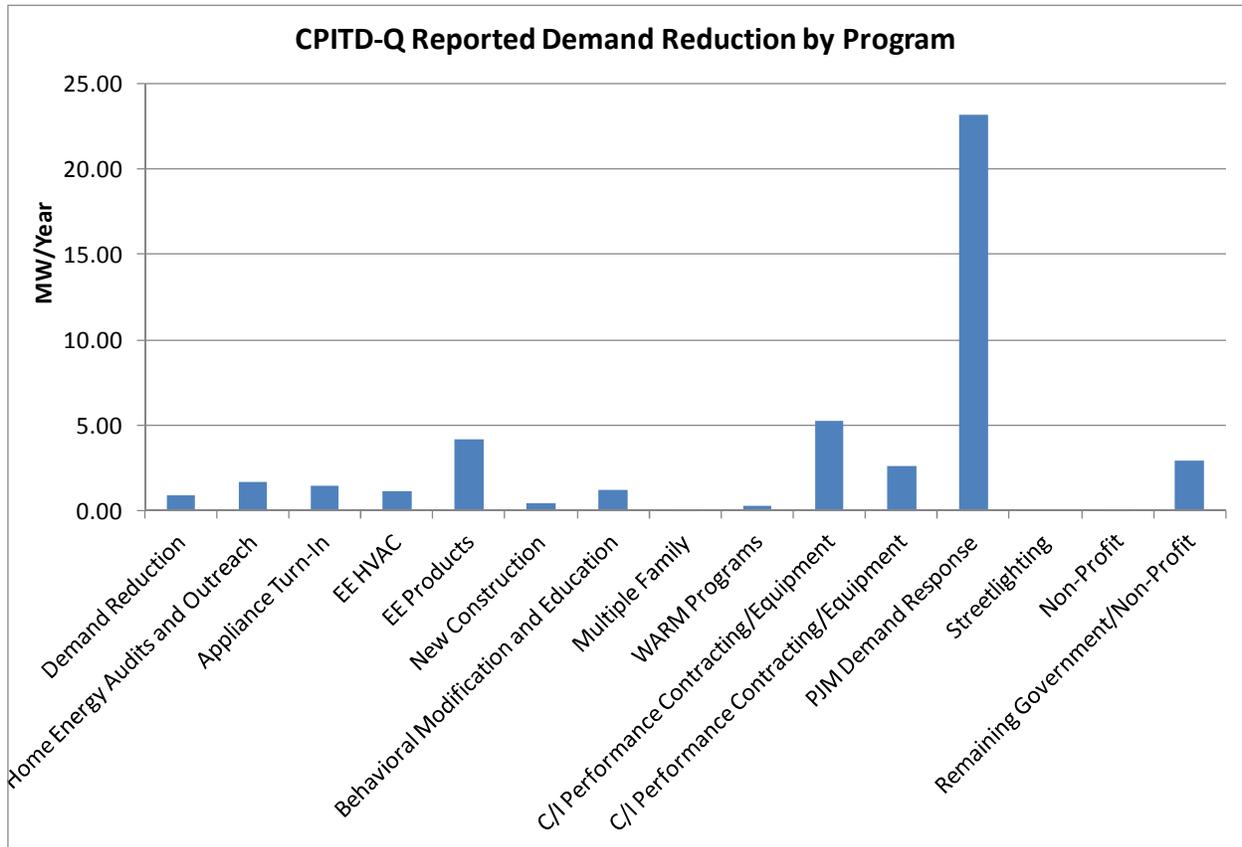


Figure 3-2. CPITD-Q Reported Demand Reduction by Program



A summary of demand reduction impacts by program through PY4Q4 is presented in **Table 3-1**⁹.

Table 3-1. Participation and Reported Gross Demand Reduction by Program

Program	Participants			Reported Gross Impact				Preliminary Realization Rate ¹
	(MW)							
	IQ	PYTD	CPITD	IQ	PYTD	CPITD	CPITD-Q	PYTD
Demand Reduction	-2	-62	2,661	n/a	0.93	0.93	0.93	100.0%
Home Energy Audits and Outreach	1,279	18,700	38,646	0.07	0.96	1.83	1.67	81.5%
Appliance Turn-In	367	1,653	6,007	0.09	0.39	1.62	1.48	79.4%
EE HVAC	196	1,478	4,052	0.06	0.43	1.16	1.13	74.7%
EE Products	22,644	101,129	301,580	0.22	0.96	2.87	4.18	102.6%
New Construction	5	76	458	0.00	0.01	0.30	0.48	n/a
Behavioral Modification and Education	0	28,231	28,231	1.00	1.26	1.26	1.26	n/a
Multiple Family	0	3	2,958	0.00	0.00	0.04	0.08	176.0%
WARM Programs	0	0	4,908	0.00	0.00	0.23	0.27	n/a
Small C/I Equipment	26	128	319	0.37	1.45	6.61	5.28	95.0%
Large C/I Equipment	6	19	65	0.28	0.83	2.31	2.60	95.0%
PJM Demand Response	0	50	50	0.00	23.16	23.16	23.16	95.0%
Street lighting	0	0	127	0.00	0.00	0.00	0.00	95.0%
Non-Profit	0	0	4	0.00	0.00	0.02	0.01	95.0%
Remaining Government/Non-Profit	20	37	119	0.47	0.62	3.07	2.96	95.0%
TOTAL PORTFOLIO	24,541	151,442	390,185	2.54	30.99	45.42	45.48	n/a
NOTES:								
1. Preliminary Realization Rates are based on evaluation activities and findings conducted on a partial sample set. These realization rates are not based on a statistically significant sample and are subject to change until the full evaluation is complete at the end of the program year. In this report, the realization rates for residential programs are based on tracking system review, incorporation of TRM updates, and historical verification/in-service rates. For nonresidential programs, a preliminary placeholder of 95% is used based on historical program performance.								

⁹ CPITD reported and CPITD-Q numbers include line losses and impacts for all programs through PY4Q4. CPITD-Q numbers and PY4 Realization rates reflect an updated 8.8% coincidence factor for CFLs.

4 Summary of Finances

4.1 Portfolio Level Expenditures

A breakdown of the portfolio finances is presented in **Table 4-1**.

Table 4-1. Summary of Portfolio Finances

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	\$156	\$5,430	\$13,561
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$156	\$5,430	\$13,561
Design & Development ¹	\$1	\$12	\$93
Administration ²	\$368	\$1,170	\$5,137
Management ³	\$79	\$566	\$1,109
Marketing ⁴	\$0	\$56	\$290
Technical Assistance ⁵	\$5	\$33	\$124
Subtotal EDC Implementation Costs	\$453	\$1,836	\$6,753
EDC Evaluation Costs	\$31	\$178	\$569
SWE Audit Costs	\$18	\$42	\$184
Total EDC Costs	\$658	\$7,486	\$21,068
Participant Costs	\$0	\$0	\$0
Total TRC Costs			
Notes:			
¹ Includes costs of Energy Efficiency consultants involved in plan design and development.			
² Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.			
³ Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.			
⁴ Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.			
⁵ Includes costs for Tracking and Reporting System			

4.2 Program Level Expenditures

Program-specific finances are shown in the following tables.

Table 4-2. Summary of Program Finances – Residential Demand Reduction

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	\$0	\$51	\$150
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$0	\$51	\$150
Design & Development ¹	\$0	\$0	\$5
Administration ²	\$23	\$23	\$909
Management ³	\$0	\$30	\$56
Marketing ⁴	\$0	\$0	\$7
Technical Assistance ⁵	\$0	\$0	\$3
Subtotal EDC Implementation Costs	\$23	\$52	\$980
EDC Evaluation Costs	\$5	\$11	\$27
SWE Audit Costs	\$0	\$0	\$7
Total EDC Costs	\$28	\$114	\$1,164
Participant Costs	\$0	\$0	\$0
Total TRC Costs			
Notes:			
¹ Includes costs of Energy Efficiency consultants involved in plan design and development.			
² Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.			
³ Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.			
⁴ Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.			
⁵ Includes costs for Tracking and Reporting System			

Table 4-3. Summary of Program Finances – Residential Home Energy Audits and Outreach

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	\$92	\$1,370	\$2,567
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$92	\$1,370	\$2,567
Design & Development ¹	\$0	\$2	\$13
Administration ²	\$7	-\$204	\$116
Management ³	\$8	\$79	\$144
Marketing ⁴	\$0	\$50	\$103
Technical Assistance ⁵	\$1	\$13	\$50
Subtotal EDC Implementation Costs	\$17	-\$60	\$425
EDC Evaluation Costs	\$1	\$19	\$60
SWE Audit Costs	\$2	\$6	\$22
Total EDC Costs	\$113	\$1,335	\$3,074
Participant Costs	\$0	\$0	\$0
Total TRC Costs			
Notes:			
¹ Includes costs of Energy Efficiency consultants involved in plan design and development.			
² Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.			
³ Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.			
⁴ Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.			
⁵ Includes costs for Tracking and Reporting System			
⁶ Negative values listed in IQ and PYTD columns reflect accounting adjustments during the quarter.			

Table 4-4. Summary of Program Finances – Residential Appliance Turn-In

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	\$19	\$87	\$308
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$19	\$87	\$308
Design & Development ¹	\$0	\$1	\$6
Administration ²	\$41	\$121	\$638
Management ³	\$2	\$76	\$99
Marketing ⁴	\$0	\$0	\$7
Technical Assistance ⁵	\$0	\$1	\$3
Subtotal EDC Implementation Costs	\$43	\$198	\$754
EDC Evaluation Costs	\$2	\$7	\$31
SWE Audit Costs	\$1	\$2	\$9
Total EDC Costs	\$65	\$294	\$1,101
Participant Costs	\$0	\$0	\$0
Total TRC Costs			
Notes:			
¹ Includes costs of Energy Efficiency consultants involved in plan design and development.			
² Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.			
³ Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.			
⁴ Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.			
⁵ Includes costs for Tracking and Reporting System			

Table 4-5. Summary of Program Finances – Residential Energy Efficient HVAC

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	\$47	\$188	\$595
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$47	\$188	\$595
Design & Development ¹	\$0	\$1	\$4
Administration ²	\$14	-\$24	\$219
Management ³	\$8	\$65	\$98
Marketing ⁴	\$0	\$1	\$39
Technical Assistance ⁵	\$0	\$1	\$4
Subtotal EDC Implementation Costs	\$22	\$44	\$364
EDC Evaluation Costs	\$1	\$7	\$26
SWE Audit Costs	\$1	\$3	\$9
Total EDC Costs	\$71	\$241	\$993
Participant Costs	\$0	\$0	\$0
Total TRC Costs			
Notes:			
¹ Includes costs of Energy Efficiency consultants involved in plan design and development.			
² Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.			
³ Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.			
⁴ Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.			
⁵ Includes costs for Tracking and Reporting System			
⁶ Negative values listed in IQ and PYTD columns reflect accounting adjustments during the quarter.			

Table 4-6. Summary of Program Finances – Residential Energy Efficient Products

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	\$39	\$469	\$1,550
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$39	\$469	\$1,550
Design & Development ¹	\$0	\$1	\$6
Administration ²	\$146	\$828	\$1,507
Management ³	\$24	\$134	\$180
Marketing ⁴	\$0	\$4	\$121
Technical Assistance ⁵	\$1	\$3	\$6
Subtotal EDC Implementation Costs	\$171	\$971	\$1,821
EDC Evaluation Costs	\$4	\$15	\$40
SWE Audit Costs	\$2	\$5	\$17
Total EDC Costs	\$217	\$1,460	\$3,428
Participant Costs	\$0	\$0	\$0
Total TRC Costs			
Notes:			
¹ Includes costs of Energy Efficiency consultants involved in plan design and development.			
² Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.			
³ Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.			
⁴ Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.			
⁵ Includes costs for Tracking and Reporting System			

Table 4-7. Summary of Program Finances – Residential New Construction

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	-\$40	\$3	\$570
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	-\$40	\$3	\$570
Design & Development ¹	\$0	\$0	\$6
Administration ²	\$2	\$7	\$26
Management ³	\$1	\$4	\$41
Marketing ⁴	\$0	\$0	\$11
Technical Assistance ⁵	\$0	\$1	\$5
Subtotal EDC Implementation Costs	\$3	\$12	\$89
EDC Evaluation Costs	\$0	\$11	\$22
SWE Audit Costs	\$1	\$1	\$12
Total EDC Costs	-\$36	\$27	\$693
Participant Costs	\$0	\$0	\$0
Total TRC Costs			
Notes:			
¹ Includes costs of Energy Efficiency consultants involved in plan design and development.			
² Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.			
³ Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.			
⁴ Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.			
⁵ Includes costs for Tracking and Reporting System			

Table 4-8. Summary of Program Finances – Residential Behavioral Modification and Education

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	\$0	\$0	\$0
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$0	\$0	\$0
Design & Development ¹	\$0	\$1	\$1
Administration ²	\$27	\$80	\$387
Management ³	\$3	\$36	\$36
Marketing ⁴	\$0	\$1	\$1
Technical Assistance ⁵	\$0	\$1	\$1
Subtotal EDC Implementation Costs	\$30	\$119	\$425
EDC Evaluation Costs	\$4	\$8	\$8
SWE Audit Costs	\$1	\$3	\$3
Total EDC Costs	\$35	\$129	\$436
Participant Costs	\$0	\$0	\$0
Total TRC Costs			
Notes:			
¹ Includes costs of Energy Efficiency consultants involved in plan design and development.			
² Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.			
³ Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.			
⁴ Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.			
⁵ Includes costs for Tracking and Reporting System			

Table 4-9. Summary of Program Finances – Residential Multiple Family

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	\$2	\$2	\$63
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$2	\$2	\$63
Design & Development ¹	\$0	\$0	\$1
Administration ²	\$0	-\$42	\$9
Management ³	\$0	\$1	\$2
Marketing ⁴	\$0	\$0	\$1
Technical Assistance ⁵	\$0	\$0	\$0
Subtotal EDC Implementation Costs	\$0	-\$41	\$13
EDC Evaluation Costs	\$0	\$0	\$7
SWE Audit Costs	\$0	\$0	\$1
Total EDC Costs	\$2	-\$39	\$84
Participant Costs	\$0	\$0	\$0
Total TRC Costs			
Notes:			
¹ Includes costs of Energy Efficiency consultants involved in plan design and development.			
² Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.			
³ Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.			
⁴ Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.			
⁵ Includes costs for Tracking and Reporting System			
⁶ Negative values listed in IQ and PYTD columns reflect accounting adjustments during the quarter.			

Table 4-10 Summary of Program Finances – Residential Low-Income (WARM)

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	\$0	\$6	\$741
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$0	\$6	\$741
Design & Development ¹	\$0	\$0	\$7
Administration ²	\$0	-\$4	\$36
Management ³	\$15	\$25	\$92
Marketing ⁴	\$0	\$0	\$1
Technical Assistance ⁵	\$0	\$1	\$13
Subtotal EDC Implementation Costs	\$16	\$23	\$149
EDC Evaluation Costs	\$1	\$4	\$29
SWE Audit Costs	\$1	\$2	\$7
Total EDC Costs	\$17	\$35	\$926
Participant Costs	\$0	\$0	\$0
Total TRC Costs			
Notes:			
¹ Includes costs of Energy Efficiency consultants involved in plan design and development.			
² Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.			
³ Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.			
⁴ Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.			
⁵ Includes costs for Tracking and Reporting System			

Table 4-11. Summary of Program Finances – Commercial / Industrial Small Sector Equipment

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	\$196	\$798	\$2,337
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$196	\$798	\$2,337
Design & Development ¹	\$0	\$0	\$13
Administration ²	\$81	\$431	\$859
Management ³	\$3	\$29	\$93
Marketing ⁴	\$0	\$0	\$0
Technical Assistance ⁵	\$0	\$0	\$7
Subtotal EDC Implementation Costs	\$85	\$461	\$973
EDC Evaluation Costs	\$5	\$67	\$112
SWE Audit Costs	\$0	\$1	\$20
Total EDC Costs	\$286	\$1,327	\$3,441
Participant Costs	\$0	\$0	\$0
Total TRC Costs			
Notes:			
¹ Includes costs of Energy Efficiency consultants involved in plan design and development.			
² Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.			
³ Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.			
⁴ Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.			
⁵ Includes costs for Tracking and Reporting System			

Table 4-12. Summary of Program Finances – Commercial / Industrial PJM Demand Response

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	-\$339	\$2,051	\$2,241
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	-\$339	\$2,051	\$2,241
Design & Development ¹	\$0	\$0	\$4
Administration ²	\$0	\$0	\$0
Management ³	\$3	\$23	\$120
Marketing ⁴	\$0	\$0	\$0
Technical Assistance ⁵	\$0	\$2	\$15
Subtotal EDC Implementation Costs	\$3	\$25	\$138
EDC Evaluation Costs	\$2	\$11	\$26
SWE Audit Costs	\$0	\$0	\$33
Total EDC Costs	-\$334	\$2,088	\$2,438
Participant Costs	\$0	\$0	\$0
Total TRC Costs			
Notes:			
¹ Includes costs of Energy Efficiency consultants involved in plan design and development.			
² Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.			
³ Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.			
⁴ Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.			
⁵ Includes costs for Tracking and Reporting System			

Table 4-13. Summary of Program Finances – Commercial / Industrial Large Sector Equipment

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	\$58	\$200	\$1,499
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$58	\$200	\$1,499
Design & Development ¹	\$0	\$0	\$20
Administration ²	\$1	-\$29	\$205
Management ³	\$3	\$12	\$73
Marketing ⁴	\$0	\$0	\$0
Technical Assistance ⁵	\$0	\$0	\$5
Subtotal EDC Implementation Costs	\$4	-\$17	\$303
EDC Evaluation Costs	\$0	-\$4	\$144
SWE Audit Costs	\$0	\$1	\$18
Total EDC Costs	\$62	\$180	\$1,964
Participant Costs	\$0	\$0	\$0
Total TRC Costs			
Notes:			
¹ Includes costs of Energy Efficiency consultants involved in plan design and development.			
² Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.			
³ Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.			
⁴ Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.			
⁵ Includes costs for Tracking and Reporting System			
⁶ Negative values listed in IQ and PYTD columns reflect accounting adjustments during the quarter.			

Table 4-14. Summary of Program Finances – Governmental / Non-Profit Street Lighting

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	\$0	\$0	\$181
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$0	\$0	\$181
Design & Development ¹	\$0	\$1	\$2
Administration ²	\$0	-\$29	\$1
Management ³	\$2	\$6	\$10
Marketing ⁴	\$0	\$0	\$0
Technical Assistance ⁵	\$0	\$2	\$2
Subtotal EDC Implementation Costs	\$2	-\$21	\$15
EDC Evaluation Costs	\$1	\$5	\$14
SWE Audit Costs	\$2	\$4	\$5
Total EDC Costs	\$5	-\$11	\$215
Participant Costs	\$0	\$0	\$0
Total TRC Costs			
Notes:			
¹ Includes costs of Energy Efficiency consultants involved in plan design and development.			
² Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.			
³ Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.			
⁴ Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.			
⁵ Includes costs for Tracking and Reporting System			
⁶ Negative values listed in IQ and PYTD columns reflect accounting adjustments during the quarter.			

Table 4-15. Summary of Program Finances – Governmental / Non-Profit

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	\$0	\$0	\$10
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$0	\$0	\$10
Design & Development ¹	\$0	\$2	\$2
Administration ²	\$0	-\$18	\$3
Management ³	\$3	\$12	\$12
Marketing ⁴	\$0	\$0	\$0
Technical Assistance ⁵	\$1	\$3	\$3
Subtotal EDC Implementation Costs	\$4	-\$1	\$21
EDC Evaluation Costs	\$1	\$6	\$7
SWE Audit Costs	\$3	\$7	\$7
Total EDC Costs	\$8	\$12	\$44
Participant Costs	\$0	\$0	\$0
Total TRC Costs			
Notes:			
¹ Includes costs of Energy Efficiency consultants involved in plan design and development.			
² Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.			
³ Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.			
⁴ Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.			
⁵ Includes costs for Tracking and Reporting System			

Table 4-16. Summary of Program Finances – Governmental / Remaining Non-Profit

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	\$82	\$205	\$748
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$82	\$205	\$748
Design & Development ¹	\$0	\$2	\$4
Administration ²	\$25	\$30	\$222
Management ³	\$4	\$34	\$52
Marketing ⁴	\$0	\$0	\$0
Technical Assistance ⁵	\$1	\$4	\$7
Subtotal EDC Implementation Costs	\$30	\$69	\$284
EDC Evaluation Costs	\$2	\$11	\$17
SWE Audit Costs	\$3	\$8	\$16
Total EDC Costs	\$117	\$293	\$1,065
Participant Costs	\$0	\$0	\$0
Total TRC Costs			
Notes:			
¹ Includes costs of Energy Efficiency consultants involved in plan design and development.			
² Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.			
³ Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.			
⁴ Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.			
⁵ Includes costs for Tracking and Reporting System			