# Quarterly Report to the Pennsylvania Public Utility Commission

# For the Period September 1, 2012 through November 30, 2012 Program Year 4, Quarter 2

For Pennsylvania Act 129 of 2008 Energy Efficiency and Conservation Plan

Prepared by ADM Associates, Inc.

For

Pennsylvania Electric Company Docket No. M-2009-2112952

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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 Three 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 Electric Company ("Penelec" or "Company") in the second quarter of Program Year Four (PY4) defined as September 1, 2012 through November 30, 2012, as well as the cumulative accomplishments of the programs since inception.

# 1.1 Summary of Achievements

Penelec has achieved 94 percent of the May 31, 2013 energy savings compliance target, based on cumulative program inception to date (CPITD) reported gross energy savings<sup>1</sup>, and 88 percent of the energy savings compliance target, based on CPITD gross energy savings achieved through Quarter 2 (CPITD-Q)<sup>2</sup>, as shown in **Figure 1-1**.

<sup>&</sup>lt;sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> 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.

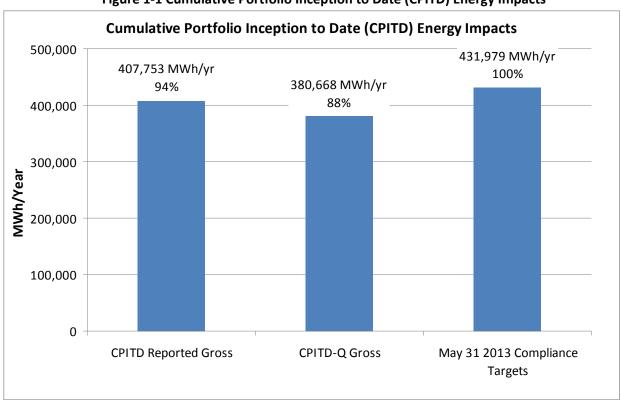


Figure 1-1 Cumulative Portfolio Inception to Date (CPITD) Energy Impacts

Penelec has achieved 50 percent of the May 31, 2013 demand reduction compliance target, based on CPITD reported gross demand reduction and 42 percent of the demand reduction compliance target based on CPITD gross demand reduction achieved through Quarter 2 (CPITD-Q)<sup>3</sup>, as shown in **Figure 1-2**<sup>4</sup>. Please note that this only includes contributions from energy efficiency programs and does not yet reflect contributions from demand reduction programs operated during the summer of 2012.

<sup>&</sup>lt;sup>3</sup> Reference footnote 2 on page 4.

<sup>&</sup>lt;sup>4</sup> These figures only include contributions from energy efficiency programs and does not yet reflect contributions from demand reduction programs operated during the summer of 2012

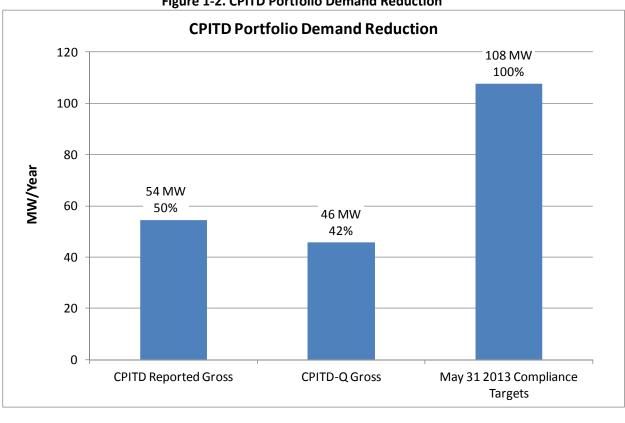


Figure 1-2. CPITD Portfolio Demand Reduction

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 Penelec territory. (12 percent). The CPITD reported gross energy savings achieved in the low-income sector is 48,576 MWh/yr; this is 12 percent of the CPITD total portfolio reported gross energy savings<sup>6</sup>.

<sup>5</sup> 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). The legislation contains no provisions regarding targets for participation, or energy or demand savings.

<sup>6</sup> 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.

Penelec achieved 132 percent of the May 31, 2013, energy reduction compliance target for government, nonprofit and institutional sector, based on CPITD reported gross energy savings, and 103 percent of the target based on CPITD gross energy savings achieved through Quarter 2 (CPITD-Q)<sup>7</sup>, as shown in **Figure 1-3**.

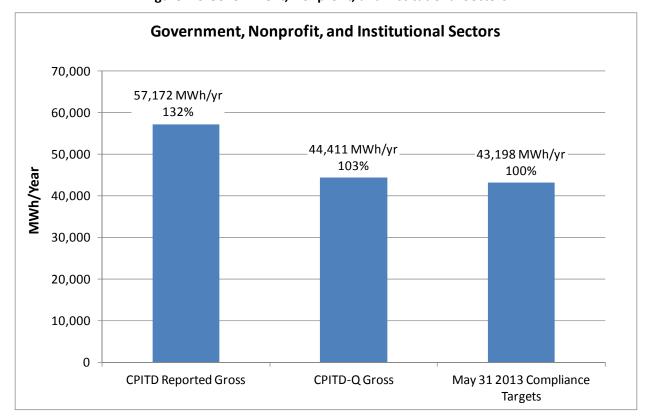


Figure 1-3 Government, Nonprofit, and Institutional Sectors

# 1.2 Program Updates and Findings

- **Residential Demand Reduction Program**: This program was operated between June 1 and September 30, 2012. As of this writing, the gross / net impact evaluation effort is underway
- Residential Home Energy Audits and Outreach Program: There were no changes to this
  program during PY4 Q2.
- Residential Appliance Turn-In Program: There were no changes to this program during PY4 Q2.
- Residential Energy Efficiency HVAC Program: There were no changes to this program during PY4 Q2.

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<sup>&</sup>lt;sup>7</sup> Reference footnote 2 on page 4.

- **Residential Energy Efficient Products Program:** There were no changes to this program during PY4 Q2.
- Residential New Construction Program: There were no changes to this program during PY4 Q2.
- **Residential Behavioral Modification and Education Program:** The CSP for the Behavior Modification Program is evaluating the savings calculation at this time.
- Residential Multiple Family Program: There were no changes to this program during PY4 Q2.
- **Residential Low-Income (WARM) Programs**: Realization rates were adjusted based on evaluation results within the PY3 final annual report.
- Commercial / Industrial Small Sector Equipment Program: No changes to this program during PY4 Q2.
- Commercial / Industrial Large Sector Performance Contracting / Equipment Program: No changes to this program during PY4 Q2.
- 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 PY4 Q2.
- Governmental / Non-Profit Program: No changes to this program during PY4 Q2.
- Governmental / Remaining Non-Profit Program: No changes to this program during PY4 Q2.

# 1.3 Evaluation Updates and Findings

• Residential Demand Reduction Program

Impact evaluation for this program will begin in January 2013 and preliminary demand reduction estimates will be available by March 2013.

# • 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.

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 brief a 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 brief a 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 recent evaluation effort conducted for PY3.

**Table 1.3.2 Residential Appliance Turn-In Program Evaluation Summary** 

Program Component	Evaluation Activities Planned	Evaluation Activities Status
Refrigerator	Tracking System /TPM Pavious	ADM has conducted preliminary desk
Freezer	Tracking System/TRM Review Verification Surveys	reviews. First sample will be drawn from
Room air conditioner	verification surveys	the Q1 and Q2 populations.

# • Residential Energy Efficiency HVAC Program

The sampling scheme for this program includes four qualitative strata. Evaluation activities for the strata are listed below.

**Table 1.3.3 Residential Energy Efficiency HVAC Program Evaluation Summary** 

Program Component	<b>Evaluation Activities Planned</b>	<b>Evaluation Activities Status</b>
Air Source Heat Pump	Invoice + calculation review (large sample) On-Site inspection (smaller sample)	
Ground Source Heat Pump	Sample)  On-Site inspection (smaller assignment of prelimination)  sample)  calculation and example assignment of prelimination and example based on desk reviews	PY4 evaluation activities to date include calculation and ex-ante reviews and assignment of preliminary realization rate based on desk review and application of
Central Air Conditioning	Invoice + calculation review (large sample) On-Site inspection (smaller sample)	updated TRM protocols. The average efficiencies and capacities from the PY3 evaluation are used to generate preliminary realization rates for this program.
HVAC tune-ups	Invoice + calculation review (large sample)  Telephone Verification Survey (smaller sample)	

# • 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	<b>Evaluation Activities Planned</b>	<b>Evaluation Activities Status</b>
CFL Buydowns	Invoice + calculation review	
CFL Giveaways	Invoice + calculation review	PY4 evaluation activities to date include
Appliances	Invoice + calculation review (large sample, stratified by appliance type)	calculation and ex-ante reviews and assignment of preliminary realization rate based on desk review and application of updated TRM protocols.
	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	<b>Evaluation Activities Planned</b>	<b>Evaluation Activities Status</b>
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	<b>Evaluation Activities Planned</b>	<b>Evaluation Activities Status</b>
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 PY2. The results of the billing analysis will be averaged with the 2009 and 2008 LIURP evaluation report findings 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	<b>Evaluation Activities Planned</b>	Evaluation Activities Status
"Lighting for Business" Applications	Stratified sampling and on-site visits	First sample to be drawn from Q1 and Q2 populations. Desk review completed for C/I CFL kits.
Prescriptive HVAC, Motor, and Refrigeration Applications	Stratified sampling and on-site visits	First sample to be drawn from Q1 and Q2 populations.
Custom Applications	Stratified sampling and on-site visits	First sample to be drawn from Q1 and Q2 populations. ADM conducts ongoing checks of evaluability for pending projects.

# 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	<b>Evaluation Activities Status</b>
"Lighting for Business" Applications	Stratified sampling and on-site visits	First sample to be drawn from Q1 and Q2 populations.
Prescriptive HVAC, Motor, and Refrigeration Applications	Stratified sampling and on-site visits	First sample to be drawn from Q1 and Q2 populations.
Custom Applications	Stratified sampling and on-site visits	First sample to be drawn from Q1 and Q2 populations. ADM conducts ongoing checks of evaluability for pending projects.

# Commercial / Industrial Large Sector Demand Response Program – CSP Mandatory and Voluntary Curtailment Program ("PJM Demand Response")

Impact evaluation for this program will begin in January 2013 and preliminary demand reduction estimates will be available by March 2013. The evaluation effort will involve stratified sampling and inspection of the hourly demand reduction calculations for selected projects.

# 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	<b>Evaluation Activities Planned</b>	Evaluation Activities Status
"Street and Area Lights" Applications	Stratified sampling and on-site visits	First sample to be drawn from Q1 and Q2 populations.

# • 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	First sample to be drawn from Q1 and Q2 populations.
Prescriptive HVAC, Motor, and Refrigeration Applications	Stratified sampling and on-site visits	First sample to be drawn from Q1 and Q2 populations.
Custom Applications	Stratified sampling and on-site visits	First sample to be drawn from Q1 and Q2 populations. ADM conducts ongoing checks of evaluability for pending projects.

# • 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	First sample to be drawn from Q1 and Q2 populations.
Prescriptive HVAC, Motor, and Refrigeration Applications	Stratified sampling and on-site visits	First sample to be drawn from Q1 and Q2 populations.
Custom Applications	Stratified sampling and on-site visits	First sample to be drawn from Q1 and Q2 populations. ADM conducts ongoing checks of evaluability for pending projects.

# 2 Summary of Energy Impacts by Program

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

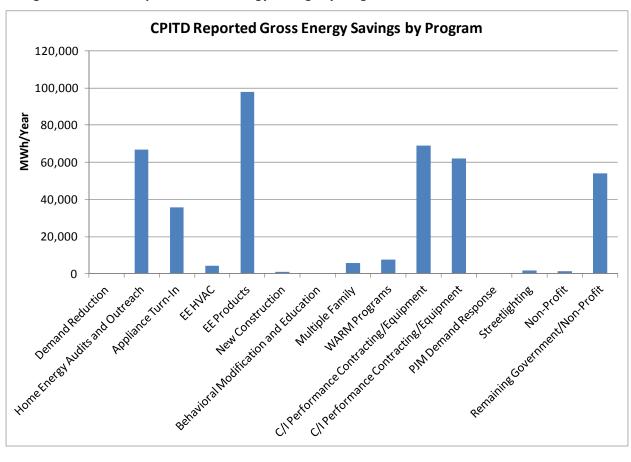


Figure 2-1. CPITD Reported Gross Energy Savings by Program

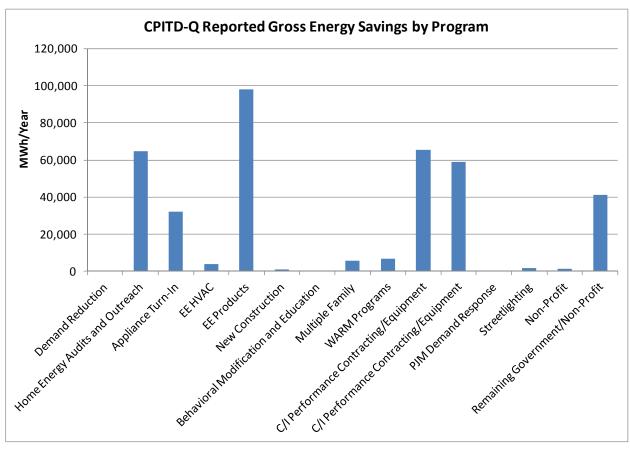


Figure 2-2. CPITD-Q Reported Gross Energy Savings by Program

A summary of energy impacts by program through PY4 Q1 is presented in **Table 2-1**.

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

	F	articipan	ts		Reported Gi	·		Preliminary Realization Rate <sup>1</sup>
Program	IQ	PYTD	CPITD	IQ	PYTD	CPITD	CPITD-Q	PYTD
Demand Reduction	-125	-331	10,965	n/a	n/a	n/a	n/a	n/a
Home Energy Audits and Outreach	18,379	41,577	114,285	11,593	26,155	66,819	64,868	89.1%
Appliance Turn-In	1,683	3,436	19,961	2,968	6,092	35,908	32,014	77.7%
EE HVAC	719	1,401	6,534	425	826	4,235	3,899	75.2%
EE Products	61,711	103,405	578,353	10,402	17,503	97,759	97,915	88.4%
New Construction	0	7	296	0	11	1,227	878	91.0%
Behavioral Modification and Education	0	92,031	92,031	0	0	0	0	n/a
Multiple Family	0	31	15,247	0	474	5,629	5,615	100.0%
WARM Programs	503	1,123	19,146	239	696	7,721	6,748	72.8%
Small C/I Equipment	59	119	1,311	3,221	5,923	69,177	65,432	95.0%
Large C/I Equipment	6	38	224	240	4,841	62,107	58,888	95.0%
PJM Demand Response	0	233	233	0	0	0	0	n/a
Street lighting	10	14	254	314	381	1,760	1,735	95.0%
Non-Profit	3	7	67	14	242	1,396	1,443	95.0%
Remaining Government/Non-Profit	16	75	732	3,405	7,548	54,016	41,233	95.0%
TOTAL PORTFOLIO NOTES:	82,964	243,166	859,639	32,820	70,691	407,753	380,668	89.3%

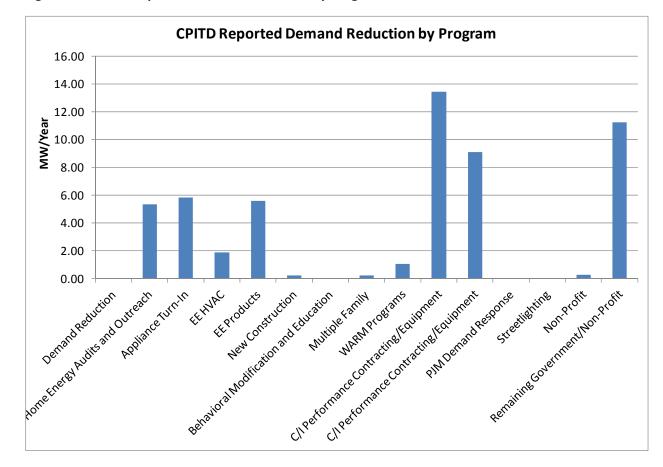
### NOTES:

<sup>1.</sup> 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.



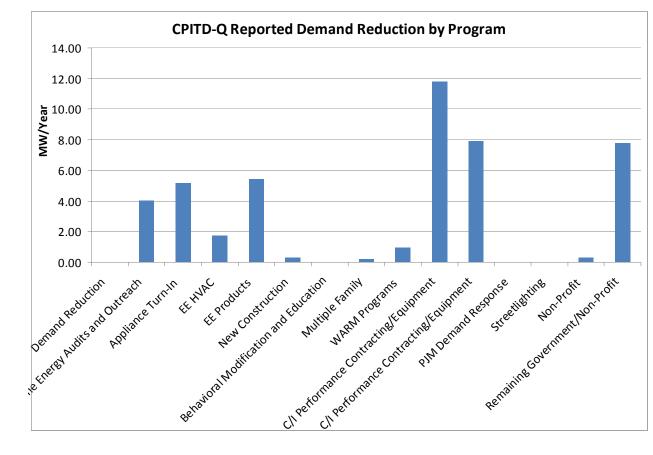


Figure 3-2. CPITD-Q Reported Demand Reduction by Program

A summary of demand reduction impacts by program through PY4 Q1 is presented in Table 3-1.

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

					Reported G	ross Impact		Preliminary Realization
	ı	Participants		(MW)			Rate <sup>1</sup>	
Program	IQ	PYTD	CPITD	IQ	PYTD	CPITD	CPITD-Q	PYTD
Demand Reduction	-125	-331	10,965	n/a	n/a	n/a	n/a	n/a
Home Energy Audits and Outreach	18,379	41,577	114,285	0.94	2.12	5.35	4.02	55.4%
Appliance Turn-In	1,683	3,436	19,961	0.42	0.86	5.83	5.16	80.4%
EE HVAC	719	1,401	6,534	0.21	0.41	1.88	1.74	75.8%
EE Products	61,711	103,405	578,353	0.61	1.06	5.59	5.45	77.7%
New Construction	0	7	296	0.00	0.00	0.22	0.30	100.0%
Behavioral Modification and Education	0	92,031	92,031	0.00	0.00	0.00	0.00	n/a
Multiple Family	0	31	15,247	0.00	0.02	0.24	0.24	100.0%
WARM Programs	503	1,123	19,146	0.04	0.13	1.09	0.96	85.8%
Small C/I Equipment	59	119	1,311	0.57	1.09	13.44	11.82	95.0%
Large C/I Equipment	6	38	224	0.07	0.53	9.12	7.90	95.0%
PJM Demand Response	0	233	233	0.00	0.00	0.00	0.00	n/a
Street lighting	10	14	254	0.00	0.00	0.00	0.00	n/a
Non-Profit	3	7	67	0.00	0.07	0.30	0.32	95.0%
Remaining Government/Non-Profit	16	75	732	0.57	1.25	11.24	7.81	95.0%
TOTAL PORTFOLIO	82,964	243,166	859,639	3.42	7.54	54.31	45.70	78.6%

### NOTES:

<sup>1.</sup> 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.

# 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	\$3,813	\$9,386	\$38,936
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$3,813	\$9,386	\$38,936
			\$0
Design & Development <sup>1</sup>	\$40	\$52	\$515
Administration <sup>2</sup>	\$57	\$1,980	\$19,847
Management <sup>3</sup>	\$245	\$483	\$2,511
Marketing <sup>4</sup>	\$0	\$24	\$942
Technical Assistance <sup>5</sup>	\$42	\$95	\$571
Subtotal EDC Implementation Costs	\$383	\$2,634	\$24,386
EDC Evaluation Costs	\$256	\$531	\$1,884
SWE Audit Costs	\$0	\$133	\$927
Total EDC Costs	\$4,453	\$12,685	\$66,134
Participant Costs	\$0	\$0	\$0
Total TRC Costs			

<sup>&</sup>lt;sup>1</sup>Includes cost of EE Expert

<sup>&</sup>lt;sup>2</sup>Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>3</sup>Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>4</sup>Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.

<sup>&</sup>lt;sup>5</sup>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	\$198	\$213	\$684
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$198	\$213	\$684
			\$0
Design & Development <sup>1</sup>	\$0	\$0	\$49
Administration <sup>2</sup>	\$154	\$632	\$8,120
Management <sup>3</sup>	\$0	\$0	\$349
Marketing⁴	\$0	\$0	\$101
Technical Assistance <sup>5</sup>	\$0	\$0	\$58
Subtotal EDC Implementation Costs	\$154	\$632	\$8,676
EDC Evaluation Costs	\$5	\$14	\$107
SWE Audit Costs	\$0	\$0	\$142
Total EDC Costs	\$357	\$858	\$9,610
Participant Costs	\$0	\$0	<b>\$</b> 0
Total TRC Costs			

<sup>&</sup>lt;sup>1</sup>Includes cost of EE Expert

<sup>&</sup>lt;sup>2</sup>Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>3</sup>Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>4</sup>Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.

<sup>&</sup>lt;sup>5</sup>Includes costs for Tracking and Reporting System

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

	<b>.</b>				
IQ (\$000)	PYTD (\$000)	CPITD (\$000)			
\$1,468	\$3,106	\$8,667			
\$0	\$0	\$0			
\$1,468	\$3,106	\$8,667			
		\$0			
\$7	\$9	\$92			
-\$962	-\$625	\$515			
\$49	\$87	\$347			
\$0	\$9	\$208			
\$19	\$46	\$246			
-\$886	-\$473	\$1,408			
\$34	\$62	\$208			
\$0	\$24	\$120			
\$616	\$2,719	\$10,403			
\$0	\$0	\$0			
	\$1,468 \$0 \$1,468 \$7 -\$962 \$49 \$0 \$19 -\$886	(\$000)     (\$000)       \$1,468     \$3,106       \$0     \$0       \$1,468     \$3,106       \$7     \$9       -\$962     -\$625       \$49     \$87       \$0     \$9       \$19     \$46       -\$886     -\$473       \$34     \$62       \$0     \$24       \$616     \$2,719			

<sup>&</sup>lt;sup>1</sup>Includes cost of EE Expert

<sup>&</sup>lt;sup>2</sup>Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>3</sup>Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>4</sup>Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.

<sup>&</sup>lt;sup>5</sup>Includes costs for Tracking and Reporting System

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

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	\$86	\$179	\$1,037
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$86	\$179	\$1,037
			\$0
Design & Development <sup>1</sup>	\$2	\$3	\$47
Administration <sup>2</sup>	\$187	\$394	\$2,342
Management <sup>3</sup>	\$14	\$23	\$141
Marketing⁴	\$0	\$3	\$34
Technical Assistance <sup>5</sup>	\$1	\$3	\$22
Subtotal EDC Implementation Costs	\$204	\$426	\$2,585
EDC Evaluation Costs	\$8	\$17	\$103
SWE Audit Costs	\$0	\$7	\$58
Total EDC Costs	\$298	\$629	\$3,783
Participant Costs	\$0	\$0	\$0
Total TRC Costs			

<sup>&</sup>lt;sup>1</sup>Includes cost of EE Expert

<sup>&</sup>lt;sup>2</sup>Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>3</sup>Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>4</sup>Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.

<sup>&</sup>lt;sup>5</sup>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	\$87	\$180	\$973
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$87	\$180	\$973
			\$0
Design & Development <sup>1</sup>	\$1	\$1	\$13
Administration <sup>2</sup>	-\$402	-\$321	\$367
Management <sup>3</sup>	\$6	\$27	\$107
Marketing⁴	\$0	\$1	\$98
Technical Assistance <sup>5</sup>	\$1	\$2	\$9
Subtotal EDC Implementation Costs	-\$394	-\$290	\$595
EDC Evaluation Costs	\$8	\$15	\$76
SWE Audit Costs	\$0	\$4	\$23
Total EDC Costs	-\$299	-\$92	\$1,666
Participant Costs	\$0	\$0	\$0
Total TRC Costs			

<sup>&</sup>lt;sup>1</sup>Includes cost of EE Expert

<sup>&</sup>lt;sup>2</sup>Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>3</sup>Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>4</sup>Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.

<sup>&</sup>lt;sup>5</sup>Includes costs for Tracking and Reporting System

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

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	\$393	\$663	\$3,681
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$393	\$663	\$3,681
			\$0
Design & Development <sup>1</sup>	\$5	\$7	\$48
Administration <sup>2</sup>	\$646	\$1,015	\$3,409
Management <sup>3</sup>	\$32	\$54	\$255
Marketing⁴	\$0	\$6	\$458
Technical Assistance <sup>5</sup>	\$4	\$8	\$37
Subtotal EDC Implementation Costs	\$687	\$1,090	\$4,207
EDC Evaluation Costs	\$25	\$43	\$139
SWE Audit Costs	\$0	\$18	\$95
Total EDC Costs	\$1,105	\$1,814	\$8,121
Participant Costs	\$0	\$0	\$0
Total TRC Costs			

<sup>&</sup>lt;sup>1</sup>Includes cost of EE Expert

<sup>&</sup>lt;sup>2</sup>Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>3</sup>Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>4</sup>Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.

<sup>&</sup>lt;sup>5</sup>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	-\$1	\$22	\$628
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	-\$1	\$22	\$628
			\$0
Design & Development <sup>1</sup>	\$1	\$1	\$34
Administration <sup>2</sup>	\$11	\$50	\$515
Management <sup>3</sup>	\$4	<b>\$</b> 7	\$122
Marketing⁴	\$0	\$1	\$35
Technical Assistance <sup>5</sup>	\$0	\$1	\$23
Subtotal EDC Implementation Costs	\$16	\$59	\$730
EDC Evaluation Costs	\$20	\$30	\$72
SWE Audit Costs	\$0	\$2	\$51
Total EDC Costs	\$35	\$113	\$1,481
Participant Costs	\$0	\$0	\$0
Total TRC Costs			

<sup>&</sup>lt;sup>1</sup>Includes cost of EE Expert

<sup>&</sup>lt;sup>2</sup>Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>3</sup>Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>4</sup>Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.

<sup>&</sup>lt;sup>5</sup>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	<b>\$0</b>	<b>\$0</b>	\$0
			\$0
Design & Development <sup>1</sup>	\$3	\$5	\$5
Administration <sup>2</sup>	\$90	\$179	\$963
Management <sup>3</sup>	\$20	\$34	\$34
Marketing <sup>4</sup>	\$0	\$4	\$4
Technical Assistance <sup>5</sup>	\$2	\$5	<b>\$</b> 5
Subtotal EDC Implementation Costs	\$115	\$226	\$1,009
EDC Evaluation Costs	\$10	\$15	\$15
SWE Audit Costs	\$0	\$12	\$12
Total EDC Costs	\$124	\$253	\$1,036
Participant Costs	\$0	\$0	\$0
Total TRC Costs			

<sup>&</sup>lt;sup>1</sup>Includes cost of EE Expert

<sup>&</sup>lt;sup>2</sup>Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>3</sup>Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>4</sup>Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.

<sup>&</sup>lt;sup>5</sup>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	\$3	\$3	\$413
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$3	\$3	\$413
			\$0
Design & Development <sup>1</sup>	\$0	\$0	\$3
Administration <sup>2</sup>	\$2	\$6	\$130
Management <sup>3</sup>	\$1	\$2	\$10
Marketing <sup>4</sup>	\$0	\$0	\$2
Technical Assistance <sup>5</sup>	\$0	\$0	\$2
Subtotal EDC Implementation Costs	\$3	\$8	\$146
EDC Evaluation Costs	\$0	\$0	\$24
SWE Audit Costs	\$0	\$1	\$4
Total EDC Costs	\$6	\$12	\$587
Participant Costs	\$0	\$0	<b>\$</b> 0
Total TRC Costs			

<sup>&</sup>lt;sup>1</sup>Includes cost of EE Expert

<sup>&</sup>lt;sup>2</sup>Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>3</sup>Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>4</sup>Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.

<sup>&</sup>lt;sup>5</sup>Includes costs for Tracking and Reporting System

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

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	\$324	\$618	\$3,510
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$324	\$618	\$3,510
			\$0
Design & Development <sup>1</sup>	\$3	\$4	\$42
Administration <sup>2</sup>	\$11	\$56	\$205
Management <sup>3</sup>	\$23	\$52	\$295
Marketing⁴	\$0	\$0	\$2
Technical Assistance <sup>5</sup>	\$2	\$5	\$41
Subtotal EDC Implementation Costs	\$39	\$117	\$585
EDC Evaluation Costs	\$10	\$36	\$157
SWE Audit Costs	\$0	\$11	\$56
Total EDC Costs	\$373	\$783	\$4,308
Participant Costs	\$0	\$0	<b>\$</b> 0
Total TRC Costs			

<sup>&</sup>lt;sup>1</sup>Includes cost of EE Expert

<sup>&</sup>lt;sup>2</sup>Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>3</sup>Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>4</sup>Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.

<sup>&</sup>lt;sup>5</sup>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	\$190	\$591	\$6,957
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$190	\$591	\$6,957
			\$0
Design & Development <sup>1</sup>	\$1	\$1	\$74
Administration <sup>2</sup>	\$180	\$344	\$1,621
Management <sup>3</sup>	\$37	\$75	\$314
Marketing <sup>4</sup>	\$0	\$0	\$0
Technical Assistance <sup>5</sup>	\$1	\$2	\$41
Subtotal EDC Implementation Costs	\$219	\$423	\$2,050
EDC Evaluation Costs	\$100	\$230	\$370
SWE Audit Costs	\$0	\$4	\$119
Total EDC Costs	\$509	\$1,247	\$9,496
Participant Costs	\$0	\$0	\$0
Total TRC Costs			

<sup>&</sup>lt;sup>1</sup>Includes cost of EE Expert

<sup>&</sup>lt;sup>2</sup>Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>3</sup>Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>4</sup>Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.

<sup>&</sup>lt;sup>5</sup>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	\$544	\$2,991	\$3,143
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$544	\$2,991	\$3,143
			\$0
Design & Development <sup>1</sup>	\$0	\$0	\$5
Administration <sup>2</sup>	\$0	\$2	\$2
Management <sup>3</sup>	\$7	\$16	\$124
Marketing⁴	\$0	<b>\$</b> 0	\$0
Technical Assistance <sup>5</sup>	\$2	\$3	\$22
Subtotal EDC Implementation Costs	\$8	\$21	\$153
EDC Evaluation Costs	\$10	\$18	\$50
SWE Audit Costs	\$0	\$1	\$68
Total EDC Costs	\$563	\$3,031	\$3,415
Participant Costs	\$0	\$0	\$0
Total TRC Costs			

<sup>&</sup>lt;sup>1</sup>Includes cost of EE Expert

<sup>&</sup>lt;sup>2</sup>Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>3</sup>Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>4</sup>Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.

<sup>&</sup>lt;sup>5</sup>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	<b>\$</b> 7	\$112	\$4,273
EDC Incentives to Trade Allies	\$0	\$0	<b>\$</b> 0
Subtotal EDC Incentive Costs	<b>\$</b> 7	\$112	\$4,273
			<b>\$</b> 0
Design & Development <sup>1</sup>	\$0	\$1	\$50
Administration <sup>2</sup>	\$53	\$96	\$765
Management <sup>3</sup>	\$15	\$30	\$206
Marketing <sup>4</sup>	<b>\$</b> 0	\$0	<b>\$</b> 0
Technical Assistance <sup>5</sup>	<b>\$</b> 0	\$1	\$20
Subtotal EDC Implementation Costs	\$69	\$128	\$1,042
EDC Evaluation Costs	-\$3	-\$11	\$443
SWE Audit Costs	\$0	\$2	\$63
Total EDC Costs	\$73	\$230	\$5,821
Participant Costs	\$0	\$0	<b>\$</b> 0
Total TRC Costs			

<sup>&</sup>lt;sup>1</sup>Includes cost of EE Expert

<sup>&</sup>lt;sup>2</sup>Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>3</sup>Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>4</sup>Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.

<sup>&</sup>lt;sup>5</sup>Includes costs for Tracking and Reporting System

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

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	\$274	\$333	\$1,614
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$274	\$333	\$1,614
			\$0
Design & Development <sup>1</sup>	\$4	\$5	\$22
Administration <sup>2</sup>	\$6	\$9	\$100
Management <sup>3</sup>	\$11	\$22	\$74
Marketing <sup>4</sup>	\$0	\$0	\$0
Technical Assistance <sup>5</sup>	\$3	\$6	\$15
Subtotal EDC Implementation Costs	\$24	\$43	\$212
EDC Evaluation Costs	\$11	\$23	\$56
SWE Audit Costs	\$0	\$14	\$39
Total EDC Costs	\$309	\$413	\$1,921
Participant Costs	\$0	\$0	\$0
Total TRC Costs			

<sup>&</sup>lt;sup>1</sup>Includes cost of EE Expert

<sup>&</sup>lt;sup>2</sup>Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>3</sup>Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>4</sup>Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.

<sup>&</sup>lt;sup>5</sup>Includes costs for Tracking and Reporting System

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

	IQ (\$000)	PYTD (\$000)	CPITD (\$000)
EDC Incentives to Participants	\$4	\$27	\$89
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	<b>\$</b> 4	\$27	\$89
			\$0
Design & Development <sup>1</sup>	\$8	\$10	\$12
Administration <sup>2</sup>	\$9	\$15	\$99
Management <sup>3</sup>	\$18	\$37	\$42
Marketing⁴	\$0	\$0	\$0
Technical Assistance <sup>5</sup>	\$5	\$11	\$12
Subtotal EDC Implementation Costs	\$40	\$73	\$165
EDC Evaluation Costs	\$12	\$25	\$27
SWE Audit Costs	\$0	\$26	\$29
Total EDC Costs	\$56	\$152	\$309
Participant Costs	\$0	\$0	<b>\$</b> 0
Total TRC Costs			

<sup>&</sup>lt;sup>1</sup>Includes cost of EE Expert

<sup>&</sup>lt;sup>2</sup>Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>3</sup>Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>4</sup>Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.

<sup>&</sup>lt;sup>5</sup>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	\$236	\$348	\$3,267
EDC Incentives to Trade Allies	\$0	\$0	\$0
Subtotal EDC Incentive Costs	\$236	\$348	\$3,267
			\$0
Design & Development <sup>1</sup>	\$3	\$4	\$19
Administration <sup>2</sup>	\$72	\$128	\$694
Management <sup>3</sup>	\$8	\$17	\$91
Marketing <sup>4</sup>	\$0	\$0	\$0
Technical Assistance <sup>5</sup>	\$2	\$4	\$18
Subtotal EDC Implementation Costs	\$85	\$152	\$822
EDC Evaluation Costs	\$5	\$12	\$38
SWE Audit Costs	\$0	\$10	\$50
Total EDC Costs	\$327	\$522	\$4,177
Participant Costs	\$0	\$0	\$0
Total TRC Costs			

<sup>&</sup>lt;sup>1</sup>Includes cost of EE Expert

<sup>&</sup>lt;sup>2</sup>Costs paid to Conservation Service Providers (CSPs) for program implementation. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>3</sup>Costs incurred to manage the CSPs and programs. To define in the TRC Technical Working Group.

<sup>&</sup>lt;sup>4</sup>Includes umbrella marketing costs for programs. Marketing completed by the CSPs are included in Administration.

<sup>&</sup>lt;sup>5</sup>Includes costs for Tracking and Reporting System