
Devin Ryan
Principal

dryan@postschell.com
717-612-6052 Direct
717-731-1981 Direct Fax
File #: 182143

March 1, 2021

VIA ELECTRONIC FILING

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor North
P.O. Box 3265
Harrisburg, PA 17105-3265

Re: Joint Petition for Consolidation of Proceedings and Approval of the Phase IV Energy Efficiency and Conservation Plan of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, and West Penn Power Company - Docket Nos. M-2020-3020820, M-2020-3020821, M-2020-3020822, M-2020-3020823

Dear Secretary Chiavetta:

Enclosed is the Revised Phase IV Energy Efficiency and Conservation Plan (“Revised Phase IV Plan”) for filing on behalf of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, and West Penn Power Company in the above-referenced proceeding. The Revised Phase IV Plan shows, in redline, the edits made to the original Phase IV Plan that was filed on November 30, 2020. Copies will be provided as indicated on the Certificate of Service.

Respectfully submitted,



Devin Ryan

DR/jl
Enclosures

cc: Honorable Mark A. Hoyer
Honorable Emily I. DeVoe
Certificate of Service

ALLENTOWN HARRISBURG LANCASTER MOUNT LAUREL PHILADELPHIA PITTSBURGH WASHINGTON, D.C. WILMINGTON

A PENNSYLVANIA PROFESSIONAL CORPORATION

CERTIFICATE OF SERVICE

(Docket Nos. M-2020-3020820, M-2020-3020821, M-2020-3020822, M-2020-3020823)

I hereby certify that a true and correct copy of the foregoing has been served upon the following persons, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

VIA E-MAIL

Erin K. Fure
Office of Small Business Advocate
555 Walnut Street, 1st Floor
Forum Place
Harrisburg, PA 17101
E-mail: efure@pa.gov

Christy M. Appleby, Esquire
Aron J. Beatty, Esquire
Office of Consumer Advocate
555 Walnut Street, 5th Floor
Forum Place
Harrisburg, PA 17101
E-mail: CAappleby@paoca.org
E-mail: ABeatty@paoca.org

John W. Sweet, Esquire
Elizabeth R. Marx, Esquire
Ria M. Pereira, Esquire
118 Locust Street
Harrisburg, PA 17101
E-mail: pulp@palegalaid.net
CAUSE-PA

Susan E. Bruce, Esquire
Charis Mincavage, Esquire
Jo-Anne Thompson, Esquire
McNees Wallace & Nurick LLC
100 Pine Street
P.O. Box 1166
Harrisburg, PA 17108-1166
E-mail: sbruce@mcneeslaw.com
E-mail: cmincavage@mcneeslaw.com
E-mail: jthompson@mcneeslaw.com
MEIUG, PICA, and WPPII

Joseph L. Vullo, Esquire
1460 Wyoming Avenue
Forty Fort, PA 18704
E-mail: jlvullo@bvrrlaw.com
CAAP

Thomas J. Sniscak, Esquire
Whitney E. Snyder, Esquire
Bryce R. Beard, Esquire
Hawke McKeon & Sniscak LLP
100 North Tenth Street
E-mail: tjsniscak@hmslegal.com
E-mail: wesnyder@hmslegal.com
E-mail: brbeard@hmslegal.com
The Pennsylvania State University

Jim Grevatt
Energy Futures Group, Inc.
P.O. Box 587
Hinesburg, VT 05461
E-mail: jgrevatt@energyfuturesgroup.com

Geoffrey Crandall
MSB Energy Associates
Suite 162
6907 University Avenue
Middleton, WI 53562-3135
E-mail: crandall@msbnrg.com

Robert D. Knecht
Industrial Economics, Inc.
2067 Massachusetts Avenue
Cambridge, MA 02140
E-mail: rdk@indecon.com

James L. Crist
Lumen Group
4226 Yarmouth Drive, Suite 101
Allison Park, PA 15101
JLCrist@aol.com

Date: March 1, 2021

A handwritten signature in blue ink, appearing to be "Devin T. Ryan", written over a horizontal line.

Devin T. Ryan



Met-Ed • Penelec • Penn Power • West Penn Power

Metropolitan Edison Company

Docket No. M-2020-3020820

Pennsylvania Electric Company

Docket No. M-2020-3020821

Pennsylvania Power Company

Docket No. M-2020-3020822

West Penn Power Company

Docket No. M-2020-3020823

Phase IV Energy Efficiency & Conservation Plan

(For the Period June 1, 2021, through May 31, 2026)

~~**November 30, 2020**~~
Revised March 1, 2021

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PY13	June 1, 2021	May 31, 2022
PY14	June 1, 2022	May 31, 2023
PY15	June 1, 2023	May 31, 2024
PY16	June 1, 2024	May 31, 2025
PY17	June 1, 2025	May 31, 2026

Table of Acronyms

ACC	Avoided Cost Calculator
AEPS	Alternative Energy Portfolio Standard
AHU	Air Handling Unit
ASHRAE	American Society of Heating, Refrigerating, and Air Conditioning Engineers
BOC	Building Operations Certification
BPI	Building Professional Institute
BRA	Base Residual Auction
C&I	Commercial and Industrial
CBO	Community Based Organizations
CEE	Consortium for Energy Efficiency
CIAC	Contribution in Aid of Construction
CSP	Conservation Service Provider
DCED	Department of Community and Economic Development
DR	Demand Response
DER	Distributed Energy Resources
DSM	Demand Side Management
EDC	Electric Distribution Company
EE	Energy Efficiency
EE&C	Energy Efficiency and Conservation
EFLH	Equivalent Full Load Hours
EM&V	Evaluation, Measurement, and Verification
EPA	Environmental Protective Protection Agency
EPRI	Electric Power Research Institute
FCM	Forward Capacity Market
FERC	Federal Energy Regulatory Commission
FPIG	Federal Poverty Income Guideline
FTP	File Transfer Protocol
GNI	Government, Non-Profit, Institutional
GRT	Gross Receipts Tax
HBA	Home Builder Associations
HER	Home Energy Report

HER	Home Energy Rater
HVAC	Heating, Ventilating, and Air Conditioning
IDER	Integrated Distributed Energy Resources
IMC	Incremental Measure Cost
IT	Information Technology
kW	Kilowatt
kWh	Kilowatt-hour
LCI	Large Commercial & Industrial
LED	Light-Emitting Diode
LI	Low-Income
LIURP	Low-Income Usage Reduction Program
M&V	Measurement and Verification
MPS	Market Potential Study
MW	Megawatt
MWh	Megawatt-hour
NGDC	Natural Gas Distribution Companies-Company
NPV	Net Present Value
NTG	Net-to-Gross
PA PUC	Pennsylvania Public Utility Commission
PHFA	Pennsylvania Housing Financing Agency
POS	Point of Sale
PDR	Peak Demand Reduction
PJM	Pennsylvania, Jersey, Maryland Power Pool
PLC	Peak Load Contribution
PUC	Public Utility Commission
QA/QC	Quality Assurance/Quality Control
RAD	Responsible Appliance Disposal
RCx	Retro-Commissioning
RESNET	Residential Energy Services Network
RFP	Request for Proposal
RTU	Roof Top Unit
SAP	System Applications and Products, is FirstEnergy's Enterprise Resource Planning (ERP) software
SCI	Small Commercial & Industrial
SWE	Statewide Evaluator
T&R	Tracking and Reporting
TRC	Total Resource Cost
TRM	Technical Reference Manual
VCx	Virtual Commissioning
XML	Extensible Markup Language

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1. OVERVIEW OF PLAN

Introduction

FirstEnergy Corp. (“FirstEnergy”), through its Energy Efficiency plan development team (“EE&C Team”), has coordinated energy efficiency and conservation (“EE&C”) development efforts across its four Pennsylvania operating companies: Metropolitan Edison Company (“Met-Ed”), Pennsylvania Electric Company (“Penelec”) Pennsylvania Power Company (“Penn Power”) and West Penn Power Company (“West Penn”) (collectively “Companies”), to meet statutory goals, achieve cost efficiencies and offer a consistent and effective set of EE&C programs to their customers. In accordance with Act 129 and the Commission’s Phase IV Implementation Order, issued on June 18, 2020 at Docket No. M-2020-3015228 (“Phase IV Implementation Order”), FirstEnergy developed this Energy Efficiency and Conservation Plan (“Phase IV Plan” or “EE&C Plan”) for the period June 1, 2021 through May 31, 2026 (“Phase IV Period”). As detailed below, the Companies’ Phase IV Plan is based on both the 2021 Pennsylvania Total Resource Cost (“PA TRC”) test and the 2021 Technical Reference Manual (“PA TRM”) and is designed to meet all requirements as set forth in the Phase IV Implementation Order.

Historic Background

On October 15, 2008, then Governor Rendell signed Act 129 of 2008, (“Act 129”)¹ into law. Act 129 imposed new requirements on Pennsylvania’s Electric Distribution Companies (“EDCs”) in the areas of energy efficiency and conservation, smart meters, procurement and alternative energy sources. Among other things, Act 129 required every EDC with at least 100,000 customers to adopt and implement a plan, approved by the Commission, to reduce energy demand and consumption within its service territory during the period June 1, 2010 through May 31, 2013² (“Phase I”).

Act 129 also authorized the Commission to evaluate whether it was cost beneficial to continue the EE&C program beyond Phase I.³ The Commission concluded in its August 3, 2012 Order at Docket Nos. M-2012-2289411 and M-2008-2069887 (“Phase II Implementation Order”) that further energy efficiency programs would be cost effective and established Phase II of the EE&C program, requiring EDCs to adopt and implement cost effective plans to reduce energy consumption throughout the Commonwealth for the period June 1, 2013 through May 31, 2016 (“Phase II Period”). The Companies submitted plans to comply with the 2012 Implementation Order, which were approved by the Commission (“Phase II Plans”).⁴

In accordance with Act 129, the Commission determined in its June 19, 2015 Order at Docket Nos. M-2014-2424864 (“Phase III Implementation Order”) that further energy

¹ 66 Pa.C.S. §2806.1 *et seq.*

² 66 Pa.C.S. § 2806.1.

³ 66 Pa.C.S. § 2806.1(c) (3).

⁴ See Docket No. M-2012-2334387 (Met-Ed); Docket No. M-2012-2334392 (Penelec); Docket No. M-2012-2334395 (Penn Power); and Docket No. M-2012-2334398 (West Penn).

efficiency and demand reduction programs would be cost effective and established Phase III of the EE&C program, requiring EDCs to adopt and implement cost-effective plans to reduce energy consumption and demand throughout the Commonwealth for the period June 1, 2016 through May 31, 2021 (“Phase III Period”). The Companies submitted plans to comply with the Phase III Implementation Order, which were approved by the Commission and are currently being implemented (“Phase III Plans”).⁵

The Commission concluded in the Phase IV Implementation Order that additional energy efficiency programs would be cost effective and established Phase IV of the EE&C program, requiring EDCs to adopt and implement cost-effective plans to reduce energy consumption and demand throughout the Commonwealth. Pursuant to the Phase IV Implementation Order, the Companies submit this Phase IV EE&C Plan.

1.1. Summary description of plan, plan objectives, and overall strategy to achieve energy efficiency and conservation goals.

Objectives:

When developing the Phase IV Plan, the EE&C Team set forth to develop a plan that meets all requirements as established in Act 129 and the Phase IV Implementation Order, including:

- Achieving the consumption reduction and coincident peak demand reduction targets within the allowable budgets;
- Achieving the consumption reduction target from the low-income sector from programs solely directed at low-income customers or low-income verified participants in multifamily housing programs;
- Meeting the budget requirement that at least 50% of EE&C Plan spending comes from incentives;
- Including at least one comprehensive program for residential and at least one comprehensive program for non-residential customer classes; and
- Offering a well-reasoned and balanced set of measures that are tailored to usage and to the potential for savings and reductions for each customer class.

Description of the Plan and Strategy for Success:

Keeping in mind these key objectives, the Phase IV Plan is generally an extension of the successful programs and measures included in the Companies’ Phase III Plan with the addition of new programs and measures, and revisions to some existing programs and measures. To meet the requirement that savings counted towards the 5.8% low-income savings target come from specific low-income programs or low-income verified participants in multifamily housing programs, the Phase IV Plan includes both a low-income program that specifically targets certain measures and services to this sector as well as multifamily

⁵ See Docket No. M-2015-2514767 (Met-Ed); Docket No. M-2015-2514768 (Penelec); Docket No. M-2015-2514769 (Penn Power); and Docket No. M-2015-2514772 (West Penn).

offerings that will additionally serve low-income customers. The Phase IV Plan includes a broad portfolio of programs and measures, including a comprehensive program for both the residential and the non-residential customer sectors. The Phase IV Plan incorporates both near-term and longer-term energy saving opportunities for all customers, including single and prescriptive measures, multiple prescriptive and custom measures, direct install, and comprehensive whole home/whole building solutions. Collectively, the proposed programs and subprograms across all sectors cover all the major energy-consuming devices in the home, building, or business, thus providing a broad portfolio of measures giving the opportunity for all customer classes to participate and benefit from one or more programs. Furthermore, the proposed programs promote and support comprehensive whole home/whole building/comprehensive solutions across all customer classes, targeting deeper savings and comprehensive retrofits.

The Phase IV Plan was developed based on experience gained through the completion of the Phase II Plans and the current implementation of the Phase III Plans, factoring in: (i) performance to date of not only the Companies' programs, but also the performance of similar programs of both affiliated and non-affiliated utilities; (ii) feedback and suggestions received from the Companies' energy efficiency consultant, vendors, and contractors; and (iii) input from stakeholders. The Phase IV Plan continues to rely on experienced outsourced Conservation Service Providers ("CSPs"), leverages prior experiences, and includes a mix of expanded and new measures or services that take advantage of leveraging opportunities, volume cost efficiencies, and a variety of delivery channels that will support successful and efficient program operations and customer participation.

The program designs presented in this Phase IV Plan are organized into the following customer sectors: (1) Residential; (2) Residential Low-Income; (2) Small Commercial and Industrial; and (4) Large Commercial and Industrial. The table below identifies the programs that are proposed in this Phase IV Plan for each of the customer sectors, and compares how these programs align with the programs in the Phase III Plan:

Table 1: Existing & New Programs

Phase III Program	Proposed Phase IV Program
Residential Programs	
Appliance Turn In Program	Energy Efficient Products Program
Energy Efficient Products Program	
Energy Efficient Homes Program	Energy Efficient Homes Program
Residential Demand Response Program	N/A
Residential Low-Income Programs	
Low Income Energy Efficiency Program	Low Income Energy Efficiency Program
Small Commercial & Industrial Programs	
C&I Energy Solutions for Business Program - Small	C&I Energy Solutions for Business Program - Small
C&I Demand Response Program - Small	N/A
Large Commercial & Industrial Programs	
C&I Energy Solutions for Business Program - Large	C&I Energy Solutions for Business Program - Large
C&I Demand Response Program - Large	N/A
Governmental/Educational/Non-Profit Programs	
Governmental & Institutional Tariff Program	N/A

Residential Sector Programs – Residential programs were designed to address both educational and initial cost barriers and to tap a variety of delivery channels and vendors to support customer engagement, education, and participation. The residential programs include direct or targeted programs that engage customers and serve as a portal for other program offerings because they serve a dual purpose of providing customers with energy efficiency education as well as information regarding other program services and opportunities upon which they can act. The residential programs incorporate strategies to change behaviors and include incentives to address the initial cost barrier to promote the participation of all residential customers. The programs provide opportunities for prescriptive equipment and direct install, so that customers who are unable or unwilling to undertake whole home/comprehensive solutions are still able to increase efficiency, and the programs also provide opportunities for customers interested in whole home/comprehensive solutions that encourage customers to consider a holistic approach to energy efficiency.

Low-Income Customer Sub-Sector Programs – Within the residential sector is a special sub-sector of low-income customers. The low-income customer program offerings outlined in this Phase IV Plan will serve a dual purpose of contributing to Act 129 goal attainment and minimizing the percentage of household income that is devoted to energy costs. Basic, enhanced, and comprehensive services and education will be offered in the low-income sub-sector to give households more control over their energy spending.

Like its Residential Sector program counterparts, the low-income customer sector program offerings are designed with a progression from general to specific in an effort to make EE&C programs and services available to all low-income customers. The Companies will provide home energy efficiency kits, school education, and customized home energy reports that provide low-income customers with basic energy savings measures and/or energy efficiency education, recommendations, and information regarding other services upon which they can act. Additional low-income customer sector program offerings (e.g., appliance rebate and turn in, multifamily) will also be targeted to help identify new low-income customers, achieve additional energy savings opportunities, or promote energy efficiency in multifamily or other low-income homes. The Companies also plan to achieve additional new and incremental electric energy savings through the Weatherization subprogram as part of the delivery of the Companies' existing comprehensive Low-Income Usage Reduction Program ("LIURP"), by tapping the considerable expertise and existing infrastructure of LIURP contractors comprised of both Community Based Organizations ("CBOs") and private contractors. The LIURP program has offered comprehensive energy efficiency services to eligible Pennsylvania households for years. This aspect of the Phase IV Plan enhances and accelerates the deployment of services to LIURP-eligible households by providing additional measures and services to achieve deeper savings in each visit or through serving additional homes. If deemed to be necessary to achieve their targets, the Companies will supplement the delivery system by adding additional subcontractors.

Small and Large, Commercial & Industrial Sector Programs – The Commercial and Industrial Programs were designed to provide customer engagement and education, incorporate energy controls and strategies to change behaviors, include incentives to address the initial cost barrier, and tap a variety of delivery channels and vendors that promote the participation of all customers. Commercial businesses and industrial customers are also addressed through programs that provide opportunities including prescriptive rebates, custom measures, building tune-up, and whole building/comprehensive solutions. The programs include specific opportunities that ensure access for small customers and provide opportunities for single or multiple prescriptive and/or custom measures, so that customers who are unable or unwilling to undertake whole building/comprehensive solutions are still able to increase efficiency. And the programs include opportunities that encourage customers to consider a holistic approach to Energy Efficiency for customers who are interested and able to participate in whole building/comprehensive solutions.

Table 2 below describes each of the programs that are included in the Phase IV Plan. More detailed descriptions of the programs are provided in Section 3.

Table 2: Program Summary Descriptions

Proposed Phase IV Program	Program Description
Residential Programs	
Energy Efficient Products Program	The program provides financial incentives to residential customers and/or retailers, contractors, distributors or manufacturers to promote customers to purchase and install energy efficient products, such as EnergyStar qualified appliances, consumer electronics, and other energy efficient products. The program will also provide financial incentives to turn in and recycle inefficient appliances, and to promote customers to perform HVAC maintenance or to upgrade HVAC equipment to more efficient technology.
Energy Efficient Homes Program	This program promotes energy efficiency of customer homes through various measures that promote customer energy efficiency education, awareness and adoption of energy efficient behaviors and measures, including customized home energy reports, energy efficiency kits, school education, audits, direct install measures, and financial incentives for implementation of qualified energy efficiency measures in the home. The program also includes financial incentives for the construction of energy efficient new homes.
Residential Low Income Programs	
Low Income Energy Efficiency Program	This program provides customized energy efficiency education and awareness to promote energy efficient behaviors along with no-cost basic to comprehensive whole house energy efficiency measures, including appliance replacement, to qualified low-income customers. The program also promotes low-income customers to install other energy efficient products, such as EnergyStar qualified appliances, consumer electronics, and other energy efficient products, or to turn in and recycle inefficient appliances, through customer education and outreach, giveaways and enhanced financial incentives.
Small Commercial & Industrial Programs	
C&I Energy Solutions for Business Program - Small	The Energy Solutions for Business Program provides financial incentives to small commercial and industrial customers, including government, institutional and multifamily customers, to purchase and install qualifying energy efficiency equipment, recycle inefficient appliances, upgrade less efficient equipment to more efficient end use technology, retrofit specialized equipment and processes, applications and end uses, complete qualifying high efficiency building shell or system improvements. The Program will also promote behavioral savings, adoption of energy saving technologies and efficient building operations through customer education and outreach, audits with direct install measures, building tune-up, energy management strategies, meter data analysis, or retrocommissioning or building operations training to achieve energy savings.
Large Commercial & Industrial Programs	
C&I Energy Solutions for Business Program - Large	The Energy Solutions for Business Program provides financial incentives to large commercial and industrial customers, including government, institutional and multifamily customers, to purchase and install qualifying energy efficiency equipment, recycle inefficient appliances, upgrade less efficient equipment to more efficient end use technology, retrofit specialized equipment and processes, applications and end uses, complete qualifying high efficiency building shell or system improvements. The Program will also promote behavioral savings, adoption of energy saving technologies and efficient building operations through customer education and outreach, audits with direct install measures, building tune-up, energy management strategies, meter data analysis, or retrocommissioning or building operations training to achieve energy savings.

Table 3 below provides the delivery channels that are currently anticipated for the programs included in the Phase IV Plan. As programs are implemented, the Companies will consider and may pursue additional delivery channels to meet targets and/or to enhance the performance of a given program.

Table 3: Program Delivery Channels

Program	Sub-Program	Rebate	Kits	Up/Mid-Stream	Direct Install
Residential Programs					
Energy Efficient Products Program	Appliance Recycling	X			
	Appliance Rebate	X		X	
	Consumer Electronics			X	
	HVAC	X		X	
Energy Efficient Homes Program	Comprehensive Audits	X			X
	Behavioral				
	Multi Family - Res	X			X
	School Education		X		
	EE Kits		X		
	New Homes			X	
Residential Low Income Programs					
Low Income Energy Efficiency Program	Weatherization				X
	LI - Appliances	X			X
	LI - School Education		X		
	LI - EE Kits		X		
	LI - Behavioral				
	LI - Multifamily - Res				X
	LI - New Homes			X	
Small Commercial & Industrial Programs					
C&I Energy Solutions for Business Program - Small	Multi Family - SCI	X			X
	Prescriptive - SCI	X		X	
	Prescriptive Other - SCI	X		X	
	Custom - SCI	X			
	Energy Management - SCI	X			X
Large Commercial & Industrial Programs					
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	X			X
	Prescriptive - LCI	X		X	
	Prescriptive Other - LCI	X		X	
	Custom - LCI	X			
	Energy Management - LCI	X			X

Like the Phase III Plan, the Phase IV Plan continues the use of incentive level ranges. Under this approach, the Companies have the ability to adjust rebate levels within the range as market conditions warrant, provided that these adjustments do not increase program costs beyond approved budgets and that the Companies communicate changes with interested stakeholders. Based on these ranges, the Companies can adjust incentives for the measures or programs to either avoid overpaying for measures, or if it is determined that an incentive is not sufficient, the Companies can increase incentives to enhance market response without missing potential opportunities while waiting for resolution through the regulatory process. This allows the Companies to quickly react to changing market conditions, thus, optimizing their efforts to cost-effectively achieve their energy savings goals.

Appendix B, PUC Table 7 lists the planned incentive level ranges associated with each of the measures included in the Phase IV Plan. For some measures, Company pre-approval may be required, and there may be limits on the number of units that will be rebated to any one customer or through any one program to support program operations, budget management, and verification of existing equipment. More detail is provided in the individual program descriptions in Section 3.

The total proposed cost of the Phase IV Plan is \$124.3 million for Met-Ed, \$114.8 million for Penelec, \$33.3 million for Penn Power and \$117.8 million for West Penn as reported in Appendix B, PUC Table 4 and PUC Table 6. These costs will be recovered through the

November 30, 2020

March 1, 2021

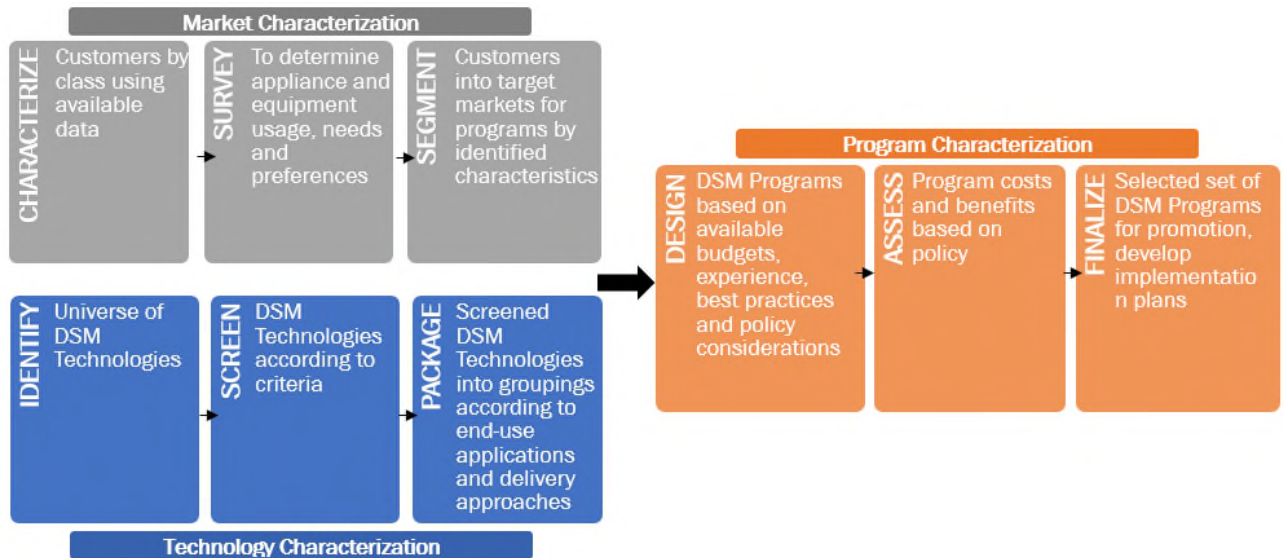
Companies' Phase IV EE&C-C Riders, which are summarized in Section 1.8 and are subject to Commission approval. The successful implementation of the Companies' Phase IV Plan is projected to be cost-effective at the portfolio level under the PA TRC test, with each Company having benefit-cost ratios greater than 1.0. Specifically, Met-Ed has a TRC ratio of 1.5, Penelec has a TRC ratio of 1.5, Penn Power has a TRC ratio of 1.3, and West Penn has a TRC ratio of 1.3. Additional details are provided in Appendix B, PUC Tables 1 and 13 for each Company. The Companies believe they have developed a successful strategy to achieve their Phase IV goals. This strategy includes the continued use of outsourced vendors with expertise in program implementation services, including managing program operations as well as marketing, customer enrollment, program and trade alley engagement, application and rebate processing, Evaluation, Measurement, and Verification (EM&V) and implementation of the tracking and reporting system. This network of contractors reports to a core team within the FirstEnergy Energy Efficiency group, who provides administration and oversight of this Phase IV Plan. Programs are closely monitored for performance and, if needed, adjustments are made to improve performance, including a shift of emphasis from lesser to higher performing programs and adjusting rebate levels based on market conditions and performance. This strategy was initially established during Phase I of Act 129 and has since continued and proven to be successful.

1.2. Summary description of process used to develop the EE&C plan and key assumptions used in preparing the plan.

Process

Figure 1, below illustrates the process undertaken by the EE&C Team to develop the Phase IV Plan:

Figure 1: FirstEnergy EE&C Plan Development Process



When developing the Phase IV Plan, the EE&C Team reviewed the programs and measures included in the Companies’ Phase III Plan and other potential programs and measures that they identified through peer review and benchmarking of other utilities and affiliates, industry review, input from stakeholders, the Companies’ energy efficiency consultant, and vendors, and a review of both the PA TRM and the Market Potential Studies (“MPS”).⁶ Potential programs and measures were assessed based on: (i) experience gained since the Phase III Plan was approved and implemented; (ii) participation results and costs from programs and measures offered in the Companies’ Phase III Plan; (iii) information related to the participation results and costs of programs and measures being offered by other Companies, other FirstEnergy affiliates and other utilities both within and outside of Pennsylvania; and (iv) input from stakeholders, vendors as well as the Companies’ energy efficiency consultant (collectively, “Assessment Input”). Based on this Assessment Input, the EE&C Team developed participation level estimates and corresponding program and measure savings and costs.

⁶ Statewide Evaluator Pennsylvania Act 129 Phase IV Energy Efficiency and Peak Demand Reduction Market Potential Study dated February 28, 2020 and released via Secretarial Letter at Docket No. M-2020-3015229 on March 2, 2020, and Statewide Evaluator Act 129 Phase IV Demand Response Potential Study dated February 2020, released via Secretarial Letter at Docket No. M-2020-3015229 on March 2, 2020.

The EE&C Team used an iterative process to refine and complete the modeling, which included the review of the projected results for each sector, program, subprogram, and measure with the Companies' energy efficiency consultant and implementation team. This review included assessing the reasonableness of the projected results based on potential in the market, potential customer participation and savings, and estimated costs. Estimated program participation values were informed by program implementation experience through the Phase III Plan, the implementation of affiliate programs in other jurisdictions, the experiences of the Companies' energy efficiency consultant and vendors with other utility programs throughout the country, and the PA MPS. Potential program and measure savings were predominantly based upon the values and formulae included in the PA TRM, actual program and evaluation results to date, individual customer project results, and other states' TRMs that were established to support energy efficiency programs in those jurisdictions.

The Companies' approach to developing the Plan balanced and considered several key sources of information, including:

- Pennsylvania-specific information including the performance of the Companies' current programs, the PA MPS, the Statewide Evaluator (SWE) Database and the PA TRM;
- CSPs' expertise in delivering programs and program performance;
- Industry experience from market potential studies, the Companies' energy efficiency consultant, verification results, and TRMs from other states;
- External stakeholder and vendor experience and opinions captured in meetings and other discussions; and
- Customer attitudes and preferences based on program performance in Pennsylvania and other jurisdictions.

The Phase IV Plan adopts the Phase IV Implementation Order's assumptions on acquisition cost for the mandated reductions. The acquisition costs supported in the MPS as adopted by the Commission in setting targets dictate the budget available for incentives and administrative costs associated with plan administration, program implementation and marketing, program management, and reporting and evaluation. The Phase IV Plan incorporates these assumptions into its estimates of program participation, program budgets, and other factors necessary for plan design.

There are both portfolio-based and program/measure-specific assumptions that must be made when modeling the programs included in this Phase IV Plan. To support the modeling effort, the Companies relied on the incentives and costs of various program elements based on both the Companies' experience with like programs and input from the Companies' EE&C consultant and vendors based on its industry experience throughout the country. Customer

participation levels and other program/measure specific assumptions are set forth in Appendix B, PUC Tables 7 and 8, and Appendix D, Table D-2.

For purposes of cost effectiveness testing, the Companies’ developed their avoided cost inputs based on the methodology prescribed by the Commission in the PA TRC Order⁷ and utilized the SWE’s avoided cost calculator. Cost effectiveness testing is more fully described in Section 8.

The Phase IV Plan is based on an assumption that the Commission will approve the plan in March 2021 to support CSP set-up, start-up, and implementation activities to ready programs for implementation as close to June 1, 2021 as possible. Based upon conditions as they exist today, the Companies’ Phase IV Plan is designed in a manner that will provide the Companies with the opportunity to achieve the goals within the spending caps established under Act 129 and the Phase IV Implementation Order.

1.3. Summary tables of portfolio savings goals, budget and cost-effectiveness.

The Companies’ Phase IV goals are shown in Table 4 below⁸:

Table 4: Energy Savings Targets per Act 129

EDC	Act 129 Mandated Reductions	
	MWh ¹ (Five-Year)	MW ¹ (Per Year)
Met-Ed	463,215	76
Penelec	437,676	80
Penn Power	128,909	20
West Penn	504,951	86

¹ 2020 Implementation Order at pg. 8

The Companies’ Phase IV goals are to be achieved within the expenditure level noted below in Table 5, which represents the annual spending cap established by Act 129.

Table 5: Spending Caps per Act 129

⁷ 2021 PA Total Resource Cost (TRC) Test, Docket No. M- M-2019-3006868 (Order entered December 19, 2019).

⁸ In addition to the tables required by the Commission (which are designated as “PUC Tables”), the Companies developed additional tables that have been included as additional support.

EDC	Total Act 129 Allowable Plan Costs (Five-Year) ¹
Met-Ed	\$124,334,470
Penelec	\$114,873,710
Penn Power	\$33,298,945
West Penn	\$117,813,010

¹ 2020 Implementation Order at pg. 120

Appendix B, PUC Tables 1-4 provides the portfolio savings goals, budget and cost-effectiveness for the Companies.

1.4. Summary of program implementation schedule over five- year plan period.

The proposed timeline for Phase IV Plan implementation is set forth below. The Companies anticipate that they will leverage the existing program implementation processes to the extent practical to support timely program transition and implementation. The Companies will use one or more CSPs to transition and implement the various programs identified in their Phase IV Plan. These CSPs will be responsible for the transition and start-up of new programs and measures, which will include, at a minimum, the identification of appropriate staffing skills and levels and the hiring of the same, and the development of website(s), promotional strategies, and processes ensuring quality and other controls supporting successful program transition and implementation. The CSPs’ transition and start-up phase will include communication and coordination with Company personnel so as to: (i) present a seamless transition for customers and program allies who either wish to participate or continue participation in new and existing programs that will be offered during Phase IV; (ii) maximize process efficiency and controls; and (iii) leverage the Companies’ relationships and communications with customers.

The Companies will contractually obligate the CSPs to design a transition and start-up phase that will be performed in an organized and efficient manner and that strives to maintain and strengthen constructive relationships with the Companies’ Plan and program management, customers, program allies, and contractors. The start-up period will include milestone objectives and targets along the timeline to completion of program startup.

The transition and start-up period will include a Program Set-Up Period, which will commence immediately following approval of this Phase IV Plan. This set-up/start-up plan will outline a process to develop the systems and procedures needed to operate the energy efficiency programs for the Companies. The transition and start-up plan will include, at a minimum:

- An organization chart and description of management roles and responsibilities;
- A description of programs and dates of milestone objectives and program launch;
- A description of an implementation and operational plan for use by any subcontractor;

- A plan to facilitate or support program tracking and reporting;
- A determination of the required information transfers between the CSPs, the Companies, and the Companies' other energy efficiency or tracking system contractors;
- A plan for creating, installing, and testing necessary data collection systems for program operation and evaluation;
- The establishment of a call center and the processes needed for the Companies to transfer calls they receive related to the programs;
- The development of detailed processes for providing and managing rebate/incentive applications, rebate/incentive payment processes, reporting procedures, data collection and data recording processes, internal billing and related documentation to be sent to the Companies for processing;
- The identification of potential CSPs and the development of processes for transactions between the two, including electronic payments between the Companies and the CSPs;
- A marketing, promotion and communication plan, which includes a website strategy;
- The creation of a check processing system (if deemed appropriate); and
- A summary of any other program specific preparations needed before the programs are launched.

During program transition and set-up, the CSPs will meet with the Companies, their consultant, and evaluation and tracking system contractors as necessary and appropriate to properly integrate the applicable program into the Companies' overall comprehensive Phase IV Plan.

To the extent possible, the Companies anticipate a seamless transition of programs and measures from the Phase III Plan to the Phase IV Plan, noting that: (i) Phase III transactions will be managed to conclusion concurrent with the introduction of Phase IV programs; and (ii) any installations completed prior to May 31, 2021, will be included in the Companies' documentation supporting compliance with Phase III targets. The Companies' implementation strategy for this Phase IV Plan will rely on the use of CSP(s), partners, program allies, community-based organizations, and other entities engaged in energy-efficiency to promote, communicate, deliver, and support the effective transition, deployment and implementation of the new programs and measures and suspension of programs and measures not being continued in Phase IV.

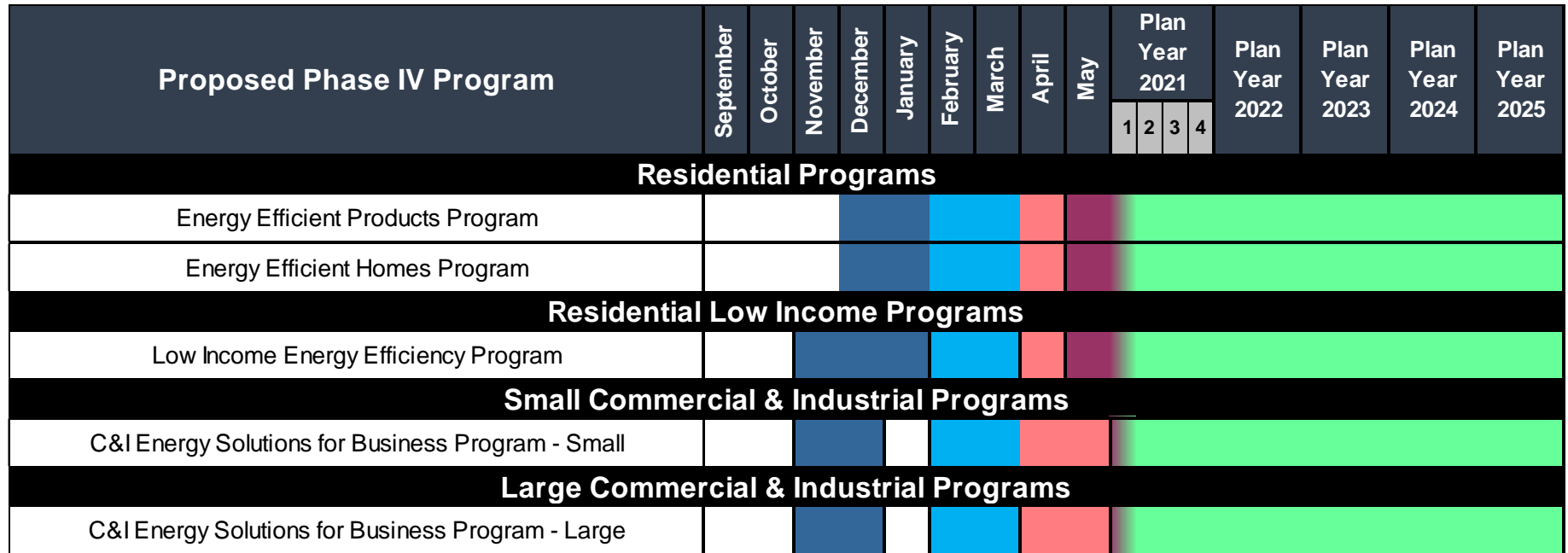
Consistent with the Phase IV Implementation Order, the Companies will not begin implementation of the Phase IV Plan prior to Commission approval of the program and CSP contracts and will initiate controls to ensure that the incentives and rebates offered under the Phase IV programs apply to only those measures installed and commercially operable after May 31, 2021, and before June 1, 2026. Program measures installed and commercially operable on or before May 31, 2021, as well as CSP or administrative fees related to Phase III, are considered Phase III expenses and will be tracked and reported accordingly. Program measures installed and commercially operable after May 31, 2021, as well as CSP or






administrative fees related to Phase IV, are considered Phase IV expenses and will also be tracked and reported accordingly. Phase IV costs will be accounted for separately from Phase III costs. Details surrounding cost recovery are set forth in Section 1.8.

The Companies' goal is to maintain the momentum created through programs included in the Phase III Plan and to leverage in the Phase IV Plan the synergies created through implementation of those programs. The Phase IV Plan assumes approval in a time frame that allows the Companies to seamlessly transition from the Phase III Plan to the Phase IV Plan. The Companies will continue to use outside vendors to deliver services in support of many of their programs, with some vendors operating as turnkey program delivery contractors, and others providing specific functions across multiple programs. The Companies' Supply Chain group will be involved in the third-party contracting process by utilizing competitive bidding for the servicing of Phase IV programs, with such programs being implemented upon Commission approval of the proposed CSP contract(s).⁹ The timeline listed below anticipates Commission approval of the Companies' Plan and programs during March 2021:

⁹ Secretarial Letter issued July 16, 2020 approving FirstEnergy Corp.'s "Procedure for Awarding Contracts to PA Act 129 Conservation Service Providers" filed by the Companies on July 14, 2020 pursuant to the Act 129 Phase IV Energy Efficiency and Conservation Program Final Implementation Order at Docket No. M-2020-3015228.

Figure 2: Gantt Chart of Program Schedule Summary



Key	
Develop and Issue RFP	
Select CSP / File Proposed CSP Contract for PUC approval	
Award CSP Contract after PUC approval	
Program Set-Up Activities	
Program Launch and Implementation per PUC Approval	

November 30, 2020
March 1, 2021

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1.5. Summary description of the EDC implementation strategy to acquire at least 15% of its consumption reduction target in each program year.

This Phase IV Plan is designed to achieve savings throughout the Phase IV Period. As indicated in Appendix B, PUC Table 2 and PUC Table 3, the Phase IV Plan is designed to achieve at least 15% of the consumption reduction and peak demand reduction targets in each year of the plan. In addition, the design of the Phase IV Plan and programs, along with the inclusion of incentive ranges rather than fixed incentive levels, provides the Companies with the flexibility to react quickly to changing market conditions and program performance to support meeting this requirement.

1.6. Summary description of the programs or measure categories from which the EDC intends to nominate peak demand reductions (PDR) into PJM's Forward Capacity Market (FCM) along with a projected range of MW totals to be bid by year.

The Companies plan to offer a portion of the peak demand reductions from its Phase IV Plan into PJM's Forward Capacity Market from the portfolio of programs and measures that are eligible for PJM. The Companies will base their actual offer values on their experience evaluating programs for PJM capacity market participation, taking into account capacity ownership rights, EM&V results and costs, changing PJM market rules, and other variables to balance the risk and cost of capacity market participation with the anticipated revenue.

The Companies anticipate measures being offered from primarily lighting, HVAC equipment, refrigeration, water heating and custom project programs. See Sections 3.2, 3.3 and 3.4 for the Companies' program and measure offerings from which resources will be considered in determining its offers into PJM's Forward Capacity Market. The Companies provided estimated ranges of the PJM Summer and Winter MW EE potential for each PJM delivery year as shown in Appendix C, Table C-3 based on the MWh savings as projected in the EE&C Plan, with the following assumptions and modifications:

- Identified and removed energy savings of all measures not eligible for PJM including:
 - online audits;
 - appliance recycling;
 - building lighting controls and occupancy sensors;
 - smart thermostats, energy management systems or smart homes;
 - behavioral programs;
 - educational programs;
- Assumed utilities retain all Phase IV Plan program Capacity Rights to support their offered EE resources and to ensure no double counting of EE resources by third parties;
- Assigned an initial savings load shape to each PJM eligible EE measure;
- Estimated the potential kW savings values for each measure for the PJM defined Summer and Winter periods using the appropriate load shape curve; and
- Included T & D line losses to adjust retail kW values to wholesale kW values.

The Companies anticipate participation of Phase IV Plan resources installed starting June 1, 2021 in the 2023/24 Base Residual Auction (“BRA”). All EE sell offer values and buy bids shall remain confidential because they are considered market sensitive information; however, they can be provided to Commission Staff via confidential submission and after the applicable auction results are available. The Companies’ considerations and processes to further evaluate the potential values provided in Appendix C, Table C-3 for their participation in the PJM Capacity Auctions also include, but are not limited to, the following:

- Adjustment of the PJM kW estimates for any Point of Sales (POS), Mid-Stream, and Up-Stream Programs. Measures from these programs require additional PJM EM&V and annual persistence studies to ensure offered EE measures are initially installed in the applicable PJM zone and remain in service during each applicable delivery year.
- The Initial PJM EM&V Plan values are based on many assumptions including adoption/installation rates, more generic or composite measure savings curve shapes, initial incentives or rebate levels, line losses and current measure baselines. Adjustments to each must be considered for actual EE offers.
- Adjustments to recognize that EE resources have a limited offer duration of four years with additional installation period limitations and PJM auction parameter changes which will require true-up of market positions.
- Consideration of Capacity Market rule changes like the pending PJM Minimum Offer Price Rules (MOPR) and FERC Order 2222 – DER Aggregation which includes Energy Efficiency Resources.

1.7. *Summary description of the EDC implementation strategy to manage EE&C portfolios and engage customers and program allies.*

As discussed above, the Companies will contract with CSPs with expertise in specific programs and program implementation services, including program operations and marketing, customer enrollment, and program, subcontractor and trade alley engagement among other things. This network of CSPs reports to the implementation team within the FirstEnergy Energy Efficiency group, which provides oversight of program delivery, including program performance, marketing campaigns, customer and program alley engagement. Programs are closely monitored for performance, and, if needed, adjustments are made to improve performance. The Companies will also leverage their relationships with various parties through the stakeholder process, seeking input on how better to reach customers and program allies alike throughout implementation of the programs.

1.8. *Summary description of EDC’s data management, quality assurance and evaluation processes; include how EE&C plan, portfolios, and programs will be updated and refined based on evaluation results.*

The Companies have in place effective quality control processes and procedures that they currently utilize to manage the integrity of their programs being offered through the Phase III Plan. The Companies remain committed to designing and implementing robust processes and systems to achieve the energy savings and demand reduction goals established in Act 129 and, where appropriate, will continue to utilize or improve upon those processes already in place. The Companies’ Phase IV Plan intends to continue the existing two-fold approach to ensure the quality of their EE&C programs during implementation, which:

- Develops processes to clearly detail the steps to meet EE&C goals while complying with applicable requirements; and
- Devises and implements control points at various stages of these processes to establish and maintain quality.

Section 6 presents plans regarding the data management, quality assurance, and evaluation processes for the Phase IV Plan. The Companies are committed to working with the SWE to support its efforts evaluating the programs. The Companies will conduct both impact and process evaluations to gauge program performance, assess progress toward the achievement of goals, and identify issues requiring mid-course correction. All programs will benefit from periodic feedback from stakeholders and customer satisfaction surveys. In addition to making implementation adjustments to programs as identified through these feedback channels, the Companies will propose any program changes they feel are necessary in their annual reporting to the Commission or, alternatively, they will propose a plan change using either the Commission’s standard procedures for rescission and amendment of Commission orders, or the expedited review process outlined in the Commission’s Order on Act 129 Energy Efficiency and Conservation Program (entered June 10, 2011 in Docket No. M-2008-2069887) (“Minor Plan Change Order”) and as affirmed in the Commission’s Phase IV Implementation Order.

1.9. *Summary description of cost recovery mechanism.*

The Companies’ proposed EE&C Charge Phase IV Riders (“Phase IV EE&C-C Riders”) are expressed as a price per kilowatt-hour (“kWh”) for the residential, non-profit, commercial, and street lighting classes and will be billed accordingly. The industrial class will be billed based upon the individual customer’s Peak Load Contribution (“PLC”) kW. The Phase IV EE&C-C Rider rates will be calculated separately for each rate schedule/tariff that has been allocated EE&C program costs, with the revenues collected through these rates being reconciled to actual EE&C program costs. The Companies are proposing that the Phase IV EE&C-C Rider rates reflecting the programs and budgets of this Phase IV Plan become effective for service rendered on or after June 1, 2021, and continue through May 31, 2026. In addition to recovery and reconciliation of EE&C program costs, the cost of the SWE will be included in the Revenue Requirement and any PJM capacity market revenues (net of the costs associated with auction participation and including replacement capacity charges, capacity deficiency charges

and any unavoidable PJM charges) will be credited in the Revenue Requirement, pursuant to the Phase IV Implementation Order. The amount of revenues that the Phase IV EE&C-C Rider rates can recover associated with the EE&C program costs (excluding the SWE and PJM expenses) are capped by Act 129's 2% spending limit. The Companies will submit to the Commission by May 1 of each year a reconciliation of the Phase IV EE&C-C Riders.

2. Energy Efficiency Portfolio/Program Summary Tables and Charts

2.1. Residential (exclusive of Low-Income), Residential Low-Income, Commercial/Industrial Small, Commercial/Industrial Large Portfolio Summaries.

See Appendix B, PUC Table 5, for the quantitative Residential, Residential Low-Income, Commercial/Industrial Small, and Commercial/Industrial Large Portfolio Summaries.

2.2. Plan data: Costs, Cost-effectiveness and Savings by program, sector and portfolio.

See Appendix B, PUC Tables 1-5 for the Costs, Cost-effectiveness and Savings by program, sector and portfolio.

2.3. Budget and Parity Analysis.

See Appendix B, PUC Table 6 for the Budget and Parity Analysis summary of the portfolio.

3. Program Descriptions

3.1. Discussion of criteria and process used for selection of programs:

The programs outlined in the Companies' EE&C Plan were selected and designed to comply with the Phase IV Implementation Order program requirements, including:

- Achieving the consumption reduction and coincident peak demand reduction targets within the allowable budgets;
- Achieving the consumption reduction target from the low-income sector from programs solely directed at low-income customers or low-income verified participants in multifamily housing programs;
- Meeting the budget requirement that at least 50% of EE&C Plan spending comes from incentives;
- Including at least one comprehensive program for residential and at least one comprehensive program for non-residential customer classes; and
- Offering a well-reasoned and balanced set of measures that are tailored to usage and to the potential for savings and reductions for each customer class.

In setting out to achieve these requirements, the Company pursued the following themes:

- Leverage the program offerings of the Companies and the Companies' affiliates in other jurisdictions that have proven to be successful;
- Align and coordinate program designs, measures, and services with its affiliates where appropriate;
- Incorporate additional programs or measures identified as successful from other peer utilities or based on the expertise and input from the Companies, their affiliates, or their consultant, vendors, and stakeholders;
- Incorporate new programs or measures that are considered promising to target new customer segments or end uses, increase participation or savings, or promote new innovative program concepts; and
- Establish a program framework that is adaptable and scalable to help the Companies meet their energy savings and peak demand reduction targets.

The EE&C Team strived to develop a program framework that not only would meet the Companies' targets and requirements for Phase IV but also would avoid potential market disruption or confusion from unnecessary changing program structures between plan cycles. The Companies sought to leverage the experience and successes of their affiliates in other jurisdictions, while seeking opportunities to improve and expand program offerings. The Companies strived to design a portfolio of programs that will be flexible enough to meet an assortment of customer needs to drive customer participation and to provide the opportunity for all customers to participate in the programs and for the Companies to meet their goals. The Companies also strived to develop consistent program offerings with its affiliates in other states to leverage economies of scale and target cost savings for its customers.

The Companies coordinated their EE&C development efforts to achieve cost efficiencies and offer a consistent set of EE&C programs. The FirstEnergy EE&C Team also coordinated program design with its plan development activities in both Maryland and New Jersey and reviewed both existing and potential new programs and measures to develop a broad and comprehensive program portfolio. As a result, the EE&C Team created a portfolio of potential programs and measures that draws upon the programs and measures offered through the EE&C Plans of the Companies' affiliates and other utilities, other industry programs and measures and incorporates stakeholder, consultant, and vendor input.

The program selection process included the following activities, with several activities encompassing the program development timeline and being performed coincidentally or iteratively:

1. The FirstEnergy EE&C Team reviewed potential programs and measures based on identification by, or feedback from: (i) stakeholders and vendors; (ii) FirstEnergy's energy efficiency implementation team; and (iii) evaluation contractor and energy efficiency consultant. The team also reviewed other industry sources, the PA TRM, and the PA MPS, along with the programs and measures currently being offered through the Existing Plan and by other FirstEnergy affiliate utilities and non-FirstEnergy utilities.
2. The potential programs and measures underwent a screening process carried out by the EE&C Team, which included, among other things, consideration of the technology readiness, anticipated participation, implementation requirements, and cost and savings impacts. Technologies were grouped by: (i) sectors, such as residential and C&I; (ii) end uses, such as lighting and HVAC; and (iii) program types, such as home performance, and efficient products. Potential programs and measures were reviewed with the Companies' stakeholders, the Companies' implementation team, and their energy efficiency consultant.
3. Program cost characteristics were developed at the technology level, including, for example, incentive levels; marketing and vendor costs; incremental measure costs; and the availability of other benefits. The value of benefits was developed from savings estimates or formulas that were included in the PA TRM and the SWE Database for those measures covered, historic actuals, and from other industry sources, primarily including TRMs from other states. The Companies' results were reviewed by their energy efficiency consultant.
4. The economic modeling was completed on an iterative basis, and the savings, cost, and PA TRC values were determined for each program. Once all programs were designed and modeled, the Plan as a whole was evaluated to balance results and costs to ensure reasonableness and compliance in a cost-effective manner. The results from the PA MPS were also used to refine and confirm that the program designs and assumptions are supported by the market potential. The projections and results were reviewed with the Companies' implementation team and energy efficiency consultant, incorporating, when appropriate, suggestions for refinement. The PA TRC results for each of the programs included in this plan can be found in Appendix B, PUC Table 13.

Program designs were then finalized based on consideration of each programs’ contributions to meeting the Commission’s and Companies’ collective requirements and objectives for the Phase IV Plan.

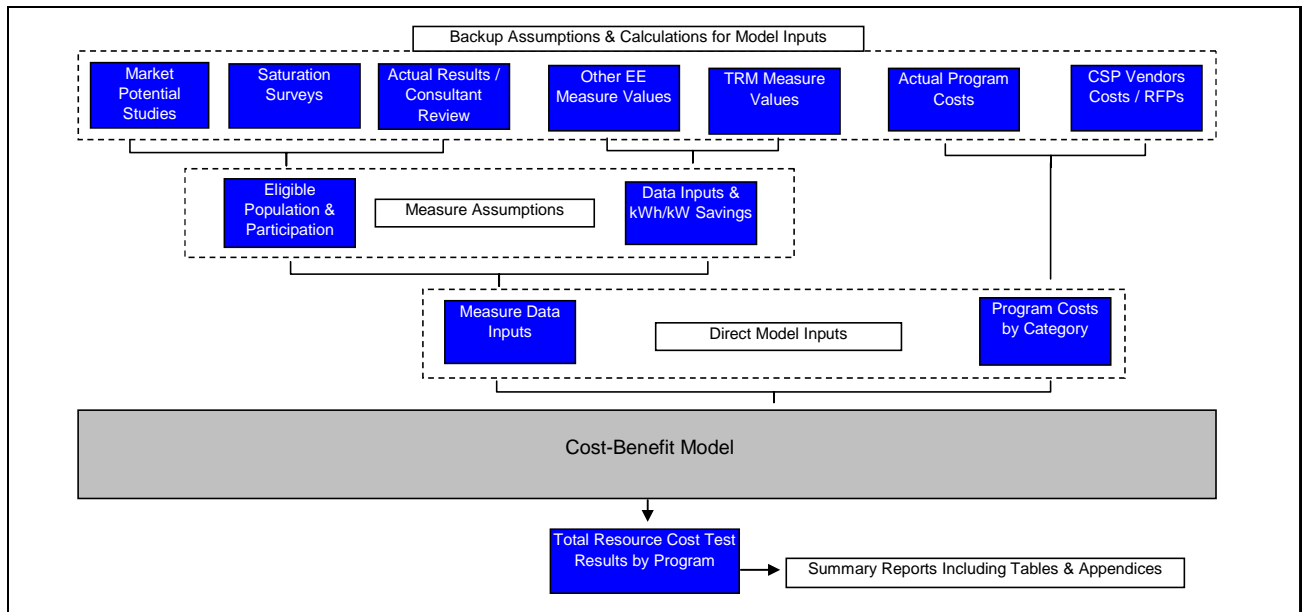
3.1.1 Describe portfolio objectives and metrics that define program success (e.g., energy and demand savings, customers served, number of units installed).

The portfolio design criteria and objectives are discussed in Section 3.1 above. General metrics for each program are associated with the number of participants, kWh savings, kW peak load reductions, dollars spent and cost-effectiveness. See Appendices B and D for the projected metrics associated with the Companies’ EE&C Plan and programs.

3.1.2 Describe how programs were constructed for each portfolio to provide market coverage sufficient to reach overall energy and demand savings goals. Describe analyses and/or research that were performed (e.g., market, best-practices, market modeling).

Figure 3 presents a schematic diagram of the analyses the Companies used to develop programs, based on available information, experience of the Companies and their affiliates and input from the Companies’ consultant and stakeholders.

Figure 3: Model Process Diagram



The Companies utilized a comprehensive bottom-up approach in designing the programs and selecting measures for inclusion in the Plan. Under this approach, the EE&C Team identified potential measures from extensive sources including but not limited to the Electric Power Research Institute (“EPRI”), ENERGY STAR, ESource, other utilities, other jurisdictions, and input from vendors, the Companies’ EE&C consultant, CSPs and stakeholders. The EE&C

Team established measure eligibility in consideration of the PA TRM, industry ratings such as ENERGY STAR, the Consortium for Energy Efficiency (“CEE”) and other efficiency ratings.

The Companies primarily utilized the PA TRM and the Mid-Atlantic TRM developed for Maryland and other jurisdictions to quantify the energy and demand savings, the “measure life” and other assumptions of the measures included in the Plan. The PA TRM and Mid-Atlantic TRM have been developed and frequently updated based on actual data when available, and with input of stakeholders with extensive experience in EE&C programs. In limited cases where these TRMs did not cover a proposed measure, the Companies utilized estimates based on other sources as listed in Appendix C, Table C-2. The Companies also utilized these TRMs, the SWE Database or Company calculation, as the source of the incremental costs of measures included in the Plan. The incentive values are based on targeting a portion of the incremental cost of the energy efficient equipment versus equipment meeting current standards, with consideration of the current programs, similar programs offered in other jurisdictions and of customer payback. For program modeling, the Companies incorporated the most recent realization rates established by evaluation for the current programs or similar program offerings in other jurisdictions.

One of the primary objectives was to make certain that participation would be straightforward for customers, contractors, and trade allies. The EE&C Team established projected participation rates for the proposed programs portfolio and measures through a multiple-step process leveraging their experience or the experiences of its affiliates in other jurisdictions. First, the Companies established participation rates based on the performance of their existing programs and measures or based on existing programs and measures operating in the Companies’ affiliates in other jurisdictions. The review of projected results for each program and measure included assessing the reasonableness of the projected results based on customer participation, estimated costs, and potential savings. Checks are then made between the results from the “bottom-up” analysis and selected data points (such as number of customers by customer segments and number of kWh sales by class, energy savings potential by major end use) to see how proportional the savings are to these figures. Logical and intuitive feasibility about the program assumptions were examined next, and adjustments were made as necessary, rebalancing the portfolio as appropriate.

3.1.3 Describe how energy efficiency, combined heat and power, renewables, and other measures are included in the portfolio of programs as applicable.

Sections 3.2, 3.3 and 3.4 present individual program descriptions. The Residential Energy Efficient Products Program includes measures for geothermal heat pumps and solar water heating equipment. Similarly, the Energy Solutions for Business Programs, Small and Large, includes measures for geothermal heat pumps, combined heat and power (“CHP”), and solar projects through its Prescriptive and Custom measures. See Appendix B, PUC Table 7 for the eligible measures, incentives, and rebate amounts.

3.1.4 Describe how the EDC defines ‘comprehensive’ in the context of the EE&C plan design and delivery and the comprehensive program(s) to be offered to the residential and non-residential rate classes. Describe the measure mix or delivery mechanism that qualify each

program as comprehensive consistent with the requirements of the Phase IV Implementation Order.

In the Phase IV Implementation Order, the Commission requires EDCs to develop EE&C Plans that contain at least one comprehensive program for residential and at least one comprehensive program for non-residential customer classes.¹⁰ To comply with this Commission directive, the Companies' designed their EE&C Plan to include a broad portfolio of EE&C programs for the residential and the commercial and industrial customer sectors. In general, the EE&C Plan incorporates both near-term and longer-term energy saving opportunities for customers including single and prescriptive measures, multiple prescriptive and custom measures, direct install, and comprehensive whole home/whole building solutions.

Residential Sector Programs – Residential programs were designed to address both educational and initial cost barriers and to tap a variety of delivery channels and vendors to support customer engagement, education, and participation. The residential programs include direct or targeted programs that engage customers, including residential, low-income and multifamily, and serve as a portal for other program offerings because they serve a dual purpose of providing customers with energy efficiency education as well as information regarding other program services and opportunities upon which they can act. The residential programs incorporate strategies to change behaviors and include incentives to address the initial cost barrier to promote the participation of all residential customers. The programs provide opportunities for prescriptive equipment and direct install, so that customers who are unable or unwilling to undertake whole home/comprehensive solutions are still able to increase efficiency, and the programs also provide opportunities for customers interested in whole home/comprehensive solutions that encourage customers to consider a holistic approach to EE.

More specifically, the Companies offer comprehensive measures to residential customers including whole house treatments through the Residential Energy Efficiency Homes Program and the Low-Income Energy Efficiency Program. The Energy Efficient Homes Program includes home audits with additional incentives for comprehensive home retrofits as well as incentives for efficient new home construction. These residential home retrofit and new construction measures engage builders, developers, contractors, and program allies in providing comprehensive measures across the residential sector.

Commercial and Industrial Sector Programs – Similar to the Residential Sector Programs, the Commercial and Industrial Programs were designed to provide customer engagement and education, incorporate energy controls and strategies to change behaviors, include incentives to address the initial cost barrier, and tap a variety of delivery channels and vendors that promote the participation of all customers, including commercial businesses, industrial customers, multifamily buildings, governmental, non-profit, and institutional customers. These non-residential customers are also addressed through programs that provide opportunities including prescriptive rebates, custom measures, direct install, and whole building/comprehensive solutions. The programs include specific opportunities that ensure

¹⁰ Phase IV Implementation Order at 23.

access for small customers and provide opportunities for single or multiple prescriptive and/or custom measures, so that customers who are unable or unwilling to undertake whole building/comprehensive solutions are still able to increase efficiency. And the programs include opportunities that encourage customers to consider a holistic approach to EE for customers who are interested and able to participate in whole building/comprehensive solutions.

Similarly, the Companies offer comprehensive measures to the commercial, industrial and government, non-profit, and institutional (“GNI”) customers sectors through energy audits, custom building, and custom measures. The services include audits with incentives for retrofit of major building end-uses such as lighting and HVAC, incentives for building shell improvements, and incentives for comprehensive process improvements.

Collectively, the proposed programs and subprograms across all sectors cover all the major energy-consuming devices in the home, building or business, thus providing a comprehensive portfolio of measures increasing the opportunity for more customers to participate and benefit from one or more programs. Furthermore, the proposed programs promote and support comprehensive whole home/whole building/comprehensive solutions, targeting deeper savings, and comprehensive retrofits. The table below details the major end uses that the programs target under the Phase IV Plan:

Table 6: Program Major End Uses

Program	End Use Category			
	Appliances and Electronics	HVAC	Lighting	Whole Building
Energy Efficiency & Conservation Plan				
Residential Programs				
Energy Efficient Products Program	X	X		
Energy Efficient Homes Program	X	X	X	X
Low Income Energy Efficiency Program	X	X	X	X
Small Commercial & Industrial Programs				
C&I Energy Solutions for Business Program - Small	X	X	X	X
Large Commercial & Industrial Programs				
C&I Energy Solutions for Business Program - Large	X	X	X	X

3.2. Residential Sector Programs:

The table below details the comparison of the sector’s programs included in the Phase III Plan with those programs included in the Phase IV Plan, along with a description of each program:

Table 7: Residential Existing & New Program Names & Descriptions

Phase III Program	Proposed Phase IV Program	Program Description
Residential Programs		
Appliance Turn In Program	Energy Efficient Products Program	The program provides financial incentives to residential customers and/or retailers, contractors, distributors or manufacturers to promote customers to purchase and install energy efficient products, such as EnergyStar qualified appliances, consumer electronics, and other energy efficient products. The program will also provide financial incentives to turn in and recycle inefficient appliances, and to promote customers to perform HVAC maintenance or to upgrade HVAC equipment to more efficient technology.
Energy Efficient Products Program		
Energy Efficient Homes Program	Energy Efficient Homes Program	This program promotes energy efficiency of customer homes through various measures that promote customer energy efficiency education, awareness and adoption of energy efficient behaviors and measures, including customized home energy reports, energy efficiency kits, school education, audits, direct install measures, and financial incentives for implementation of qualified energy efficiency measures in the home. The program also includes financial incentives for the construction of energy efficient new homes.
Residential Demand Response Program	N/A	N/A
Residential Low-Income Programs		
Low Income Energy Efficiency Program	Low Income Energy Efficiency Program	This program provides customized energy efficiency education and awareness to promote energy efficient behaviors along with no-cost basic to comprehensive whole house energy efficiency measures, including appliance replacement, to qualified low-income customers. The program also promotes low-income customers to install other energy efficient products, such as EnergyStar qualified appliances, consumer electronics, and other energy efficient products, or to turn in and recycle inefficient appliances, through customer education and outreach, giveaways and enhanced financial incentives.

The Table below illustrates the residential proposed programs, subprograms, and measures that are included in this Plan:

Table 8: Proposed Residential Portfolio

Program	Sub-Program	Measure	Measure Status
Energy Efficient Products Program	Appliance Recycling	Freezer Recycling	Existing
		Refrigerator Recycling	Existing
		Room Air Conditioner Recycling	Existing
		Dehumidifier Recycling	Existing
	Appliance Rebate	Clothes Washer - Level 1	Existing
		Clothes Washer - Level 2	Existing
		Clothes Washer - Level 3	Existing
		Refrigerator - Level 1	Existing
		Refrigerator - Level 2	Existing
		Refrigerator - Level 3	Existing
		Freezer	Existing
		Clothes Dryer	Existing
		Air Purifier / Cleaner	New
		Room Air Conditioner - Level 1	New
		Room Air Conditioner - Level 2	Existing
		Dehumidifier	Existing
		Water Heater	Existing
		Pool Pump Variable Speed	New
		Dishwasher	New
		Water Cooler	New
		EV Charging Cord - Level 2 - Res	New
		Smart Thermostat - ApIncs	New
	Residential Occupancy Sensor	Existing	
	Ceiling Fan	New	
	Consumer Electronics	Monitor	Existing
		Computer	Existing
		Imaging	Existing
		Smart Strip Plug Outlet	New
		TV	Existing
		Sound Bar	New
Smart Home	Existing		

Program	Sub-Program	Measure	Measure Status
Energy Efficient Products Program	HVAC	Heat Pump - Level 2	Existing
		Heat Pump - Level 3	Existing
		Central Air Conditioner - Level 2	Existing
		Central Air Conditioner - Level 3	Existing
		Ductless Mini-Split Heat Pump - Level 3	Existing
		PTAC - Level 2 - Multi Family	Existing
		PTHP - Level 2 - Multi Family	Existing
		Heat Pump - Water & GeoT - ES Tier 3	Existing
		Furnace Fan (Retrofit or New to ECM)	Existing
		Smart Thermostat - HVAC	Existing
		HVAC - Custom	Existing
		Circulating Pump	New
		HE Bathroom Fans	New
		HVAC Quality Install	New
		Ductless Mini-Split A/C	New
Energy Efficient Homes Program	Comprehensive Audits	Comprehensive Audit	Existing
	Multi Family - Res	MF - Tenant - DI - Res	Existing
		MF - Tenant - Prescriptive - Res	Existing
		MF - Tenant - Custom - Res	New
		MF - Common - Prescriptive - Res	New
		MF - Common - Custom - Res	New
		MF - Common - DI - Res	New
	School Education	School Education	Existing
	EE Kits	Energy Efficiency Measures	Existing
	Behavioral	On-Line Audit	Existing
		Behavioral 2021	Existing
		Behavioral 2022	Existing
		Behavioral 2023	Existing
		Behavioral 2024	Existing
		Behavioral 2025	Existing
	New Homes	NC - Townhouse and duplex units	Existing
		NC - Two-on-Two condominium units	Existing
		NC - Single-family detached units	Existing
NC - Multi Family Low Rise		Existing	
NC - Manufactured Housing		Existing	
		NC - Multi Family High Rise	New

Program	Sub-Program	Measure	Measure Status
Low Income Energy Efficiency Program	Weatherization	Weatherization (WARM PLUS)	Existing
		WARM Extra Measures	Existing
	LI - Appliances	Freezer Recycling - LI	Existing
		Refrigerator Recycling - LI	Existing
		Room Air Conditioner Recycling - LI	Existing
		Dehumidifier Recycling - LI	Existing
		Clothes Washer - Level 1	Existing
		Clothes Washer - Level 2	Existing
		Clothes Washer - Level 3	Existing
		Refrigerator - Level 1	Existing
		Refrigerator - Level 2	Existing
		Refrigerator - Level 3	Existing
		Freezer	Existing
		Clothes Dryer	Existing
		Air Purifier / Cleaner	New
		Room Air Conditioner - Level 1	New
		Room Air Conditioner - Level 2	New
		Dehumidifier	Existing
		Water Heater	New
		Pool Pump Variable-Speed	New
		Dishwasher	New
		Water Cooler	New
		EV Charging Cord - Level 2 - Res	New
		Smart Thermostat - Aplncs	New
	LI - School Education	School Education - LI	Existing
	LI - EE Kits	Energy Efficiency Measures - LI	Existing
	LI - Behavioral	On-Line Audit - LI	New
		Behavioral 2021 - LI	Existing
		Behavioral 2022 - LI	Existing
		Behavioral 2023 - LI	Existing
		Behavioral 2024 - LI	Existing
		Behavioral 2025 - LI	Existing
	LI - Multifamily - Res	MF - Tenant - DI - Res - LI	Existing
		MF - Tenant - Prescriptive - Res - LI	Existing
		MF - Tenant - Custom - Res - LI	New
		MF - Common - Prescriptive - Res - LI	New
		MF - Common - Custom - Res - LI	New
		MF - Common - DI - Res - LI	New
	LI - New Homes	NC - Townhouse and duplex units - LI	New
		NC - Two-on-Two condominium units - LI	New
NC - Single-family detached units - LI		New	
NC - Multi Family Low Rise - LI		New	
NC - Manufactured Housing - LI		Existing	
NC - Multi Family High Rise - LI		New	

Below are the program descriptions for the Residential sector included in the Phase IV Plan:

3.2.1 RESIDENTIAL ENERGY EFFICIENT PRODUCTS PROGRAM

Program years during which program will be implemented-

June 2021 - May 2026

Objective(s)

The objective of the program is to promote the purchase and installation of energy efficient products and to remove older inefficient operating appliances to prevent them from being maintained as a second unit or transferred to another customer. The program targets the adoption of energy efficient products, such as appliances, lighting, consumer electronics, and HVAC equipment, as well as the recycling of qualifying inefficient, operating appliances. This program includes promotional support, point-of-sale materials, education to customers, retailers, contractors, and distributors, training, promotional events, rebates for select measures, and incentives for the pick-up and recycling of inefficient operating appliances.

Target market

Residential customers who purchase energy efficient qualifying products or have older appliances.

Program description

The program is designed to provide easy and cost-effective access to energy efficient measures through customers' preferred channels and also provide a means to encourage customers to take the first steps toward energy-efficiency. The program includes the following components:

- **Energy Efficient Products** – This program component promotes the purchase and installation of ENERGY STAR efficient products in the following residential categories: Appliances, Consumer Electronics, Lighting and HVAC. The program component will provide incentives for energy efficient lighting, appliances, electronics, and heating and cooling equipment, as well as other energy efficient products. These incentives will be offered through a variety of channels included downstream rebates to customers, reduced point of sale costs, and midstream or upstream incentives and support for manufacturers, distributors, and retailers that sell qualifying energy efficient products. This program component will provide marketing support and education to customers on energy efficient products.
- **Appliance Recycling** – This program component provides an incentive, pick-up, and recycle service to customers for turning in qualifying, inefficient, operating appliances. Qualifying appliances will be picked up at the customer's residence and recycled in a compliance with the U.S. Environmental Protection Agency's ("EPA") Responsible Appliance Disposal

(“RAD”) program criteria. In addition, periodic events may be offered at centralized drop-off locations where customers can drop off smaller qualified inefficient operating appliances such as, but not limited to, dehumidifiers and room air conditioners.

Implementation strategy (including expected changes that may occur in different program years)

The Companies will contract with implementation CSP(s) who will directly administer and manage delivery of the program. Implementation activities will include marketing the program through multiple channels, validating customer eligibility, processing incentives, conducting outreach to and securing partnerships with retailers, wholesalers, distributors, manufacturers and trade allies to ensure customers are able to easily purchase energy efficient products through the program, and educating customers to ensure they are aware they are receiving discounts through the utility to offset cost of the products. Customer engagement and sales channels may include:

- **Post Purchase (Downstream) Rebates:** Rebates will be made available to customers. Applications will be available online and/or in stores to submit either electronically or in hard copy with proof-of-purchase.
- **Point of Sale Rebates:** Prescriptive rebates will be made available at the point of sale for selected products. Point of sale rebates are paid to a retailer or manufacturer who apply the rebate to reduce the retail price paid by the residential customer in the retail store.
- **Appliance Recycling:** Incentives will be provided to customers for recycling qualifying, inefficient, operating appliances. Offering an incentive for the drop off or pick-up and removal of an appliance prevents the appliance from being maintained as a second unit or being transferred to another customer. Customers can schedule an appointment by phone or online.
- **Midstream or Upstream Rebates:** The Companies plan to pursue a midstream or upstream rebate component to encourage purchase of certain energy efficient products. The Companies will work with retail partners (such as Home Depot, Lowe's, etc.), distributors, and/or manufacturers to assure that measures are available throughout their footprint. Midstream or upstream rebates encourage market transformation and wider availability of efficient equipment.
- **Trade Allies:** The Companies will establish a network of trade allies to promote certain components of the program to the customer where applicable. The trade ally network will consist of qualified installation contractors and other trade service professionals. Trade allies will be able to leverage the program and offer customers rebates through their normal course of business.

By developing relationships with both program and trade allies, the program will develop a broad reach across the marketplace and solicit feedback from the marketplace to ensure incentives and measures are impacting the market as designed. The Companies' implementation CSP(s) will work with trade allies supporting their installation of qualified energy efficient products and participation in the program.

Targeted program and trade allies may include:

- Efficient equipment retailers, distributors, and manufacturers

- HVAC & appliance contractors
- General contractors, plumbers, electricians, and other trade service professionals

Appliance Recycling will be delivered through an implementation CSP that specializes in proper appliance recycling. The CSP will be responsible for marketing, scheduling appointments, picking up / recycling of qualified working appliances, processing rebates, and handling customer inquiries. The CSP will also market, schedule, staff, and manage the pick-up and recycling of qualified working appliances at special events. Each unit collected is disposed of in an environmentally responsible way, in compliance with EPA's RAD criteria. The Companies will perform overall administration and oversight of the subprogram.

The Companies plan to issue the RFP(s) for this program in early 2021 and plan to select the CSP(s) in a timeframe that supports a seamless transition and implementation from the current program beginning June 1, 2021, upon Commission approval of the CSP contract(s) and program.

Program issues and risks and risk management strategy

The risks associated with this program are primarily obtaining sufficient customers to participate in the program based on the customers' ability to purchase qualified energy efficient products. A key barrier to implementation of energy efficiency measures remains their higher purchase price as compared to less efficient models. This program involves consumer education and incentives for selling energy efficient qualifying products. Educational materials will focus on the lower operating costs and the savings customers may obtain from making the choice to purchase eligible high efficiency products. Evaluations will monitor the extent of uptake on each product and determine whether the marketing materials and/or rebate levels need to be adjusted to mitigate this risk.

Anticipated key barriers that may pose a risk to this program include:

- **Initial Cost of Energy Efficient Products:** Relative to the market baseline, energy efficient products often carry a higher upfront cost but a lower lifetime operating cost. As a result, customers may not fully value the lifetime operating cost advantage of energy efficient products and, consequently, a higher upfront cost is a barrier to purchasing energy efficient products. To address this barrier, incentives are provided to the customer to reduce the initial cost.
- **Customer Awareness and Engagement:** Residential customers may not be aware of the benefits of installing energy efficient products and/or lack the time and resources to pursue energy efficient products when replacing existing equipment. To address this barrier, the Companies will educate customers on the benefits of installing energy efficient products through targeted marketing, ensure that incentives are easily accessible, and encourage market transformation and stocking of energy efficient products through midstream incentives. Through outreach efforts, the Companies will seek to partner with retail and wholesale entities to promote program offerings, and also focus marketing, education, and outreach efforts on the

trade ally community to ensure that trade allies are aware of available incentives. To the extent possible, the Companies will cross-promote programs to spread awareness of the range of energy efficiency opportunities proposed in this Plan.

- **Sufficient Stocking and Availability of Energy Efficient Products:** The Companies will look for opportunities to develop and promote a midstream component for specific products to encourage high levels of participation by incenting midstream market actors and/or directly discounting the cost of the energy efficient products at the point of sale. In addition, stocking and availability of energy efficient products may be challenged in relation to supply chain disruptions.
- **Trade Ally Awareness and Training:** To meet certain subprogram participation goals, sufficient contractors must be available to undertake the work. The Companies will work with [#stheir](#) implementation CSP(s) to address this barrier by trying to engage and recruit more program and trade allies to participate in select subprograms.

The Companies and the implementation CSP(s) will monitor program participation and performance through feedback channels to assess, where applicable, the effectiveness of program design, delivery methods, outreach efforts, incentive levels, marketing/advertising, program and trade ally suggestions, or other improvement opportunities to overcome barriers to program success.

Anticipated costs to participating customers

Customers will have to pay the balance of energy efficient products and installation costs not covered by the rebate. See Appendix B, PUC Table 7 for the incremental cost and incentive range for each measure in this program.

Ramp up strategy

The Companies anticipate a seamless transition and implementation upon Commission approval of the program and CSP contract(s). For the existing program measures being offered in the new Plan, there will be some ramp-up period needed to transition to the new Plan period with the implementation vendors. For new and expanded program measures, it is anticipated that it will take approximately three- to six-months to start-up new or expanded program measures after program approval. See discussion in Section 1.4 for more details on ramp up.

Marketing strategy

The Companies will implement both multi-pronged direct and indirect marketing campaigns to promote this program. Customers will be exposed to broad-based energy efficiency awareness campaigns, web-based engagement and information, digital advertising, social media, and hard-copy materials to promote awareness, as well as tie-ins with other programs. Retailers, wholesalers, distributors, manufacturers, and trade allies will be contacted directly and/or through trade

associations to develop networks and promote involvement in the program where applicable. The program will be marketed, where practical, in conjunction with the online audit, residential audit, and home energy reports as a recommendation for achievement of the identified energy savings.

A combination of strategies will be used to train and support retailers, distributors, and other program allies, including media advertising, outreach community forums, events, and direct outreach to customers. Marketing activities may include:

- Point of purchase displays and materials and special “instant sales events” or limited time offers.
- Brochures that describe the benefits and features of the program. The brochures will be available for various public awareness events (community events, presentations, seminars etc.).
- Bill inserts, bill messages, email, direct mail, social media platforms, billboards, and pop-up stores.
- Company website content providing program information resources, contact information, online application forms and links to other relevant service and information resources.
- Customer representatives trained to promote the program to their customers.

Eligible measures and incentive strategy showing incremental cost assumptions, gross measure-level TRC ratio, and incentive levels (e.g., \$ per measure, \$ per kWh or MW saved)

Refer to Appendix B, PUC Table 7 for the eligible measures, eligibility, and incentive strategy for this program.

The minimum qualifying efficiency ratings for select program measures are based on meeting either ENERGY STAR® requirements or other requirements that exceed the current Federal Standard. The Companies have adopted new Federal Standards and revised eligibility requirements for certain applicable measures. This program has been designed based on applying established efficient conditions per the PA TRM or other sources, which rely on ENERGY STAR®, CEE, or other standards and specifications for certain applicable measures. Given the potential of changing standards and specifications for the eligible products under the program during the term of this Phase IV Plan, the Companies may implement tier level or incentive changes for certain applicable measures in conjunction with future specification changes to maintain program continuity and implement timely on-going energy efficiency improvements.

Incentives for select program measures will be available in several ways and are adapted to the retail partner or program needs and market response. Strategies may include:

- Mail-in applications that are available from participating retailers, the program website, or participating contractors; and
- Online rebate forms.

The Companies may change incentives after communicating incentive changes with stakeholders consistent with past practice.

In instances where incentives are not immediate, the Companies will complete consumer or contractor payments within 60 days following completion of contractor work, submission of complete and required paperwork, and completion of program requirements, such as necessary field inspections (if required).

The basis for proposed level of incentives and the sharing of incremental measure costs between participants and the EDC

The Companies propose to provide a range of incentives depending on the subprogram and measure type, subject to changes within the “Up to” incentive amounts, based upon customer response and market conditions over the Plan period. The Companies strive to balance the sharing of incremental measure costs between the Companies and participants with subprogram performance and progress to goals. The Companies will set and adjust incentives based on many factors, including, but not limited to, their experience, the experience of their affiliates, consultant, or CSPs, stakeholder input, and industry benchmarking. Incentives will vary depending on factors including but not limited to the specific subprogram, end-use and measure, the incremental cost of the high-efficiency technology, and the product maturity in the marketplace.

Maximum deadline for rebates including clear and reasonable rationale for any timeframe longer than 180 days

Rebate applications must be submitted within 180 days of purchase and be postmarked by June 7, 2026.

Program start date with key schedule milestones

The Companies anticipate a seamless transition and implementation upon Commission approval of the program and CSP contract(s). For the existing program measures being offered in the new Plan, there will be some ramp-up period needed to transition to the new Plan period with the implementation vendors. For new and expanded program measures, it is anticipated that it will take approximately three- to six-months to start-up new or expanded program measures after program approval. See discussion in Section 1.4 and Figure 2 for more details on the program start date with schedule milestones.

Assumed Evaluation, Measurement, and Verification (EM&V) requirements required to document savings by the Commission’s statewide EE&C Plan Evaluator

The Companies will retain an Independent EM&V Contractor to perform evaluation, measurement, and verification of the program in accordance with the state's Evaluation Framework. Activities for this program may include:

Energy Efficient Products

- Verify that qualified products have been sold by participating retailers, contractors, distributors, or manufacturers seeking payment of incentives by auditing a sample of their claims.
- Verify that new, more efficient products have been installed through review of documentation provided by participating retailers, contractors, distributors, or manufacturers, as well as individual participant rebate applications.

Appliance Recycling

- Verify that the planned number of targeted appliances isare collected and properly recycled and that the calculations of kWh and kW savings from appliance retirement are accurate and compliant with applicable requirements including those contained in the TRM.

As part of the monitoring process, the Companies plan to use selected indicators to verify periodically that energy savings and demand reduction are being realized as projected. A tracking and reporting system will be used for such monitoring. If EE&C program indicators show that projected EE&C targets are not likely to be achieved on schedule or within budget, the Companies will take appropriate corrective actions, such as changing marketing and/or incentive channels or amounts.

The Companies will document, store, and send measure data to the SWE, as requested, using specified data transmission protocols, processes and technology.

Administrative requirements- include internal and external staffing levels

The Companies will use a combination of internal and external resources to manage and implement the EE&C programs. The Companies will monitor and adjust the allocation of resources to balance the needs of each program. See Sections 4.2.1 and 4.2.2 of the EE&C Plan for more details.

Savings targets and estimated participation – include tables with estimated total MWH/yr and MW goals per year and/or ranges per year and cumulative tables that document key assumptions of estimated savings ranges per measure as well as estimated participation

See Appendix B, PUC Table 8, Appendix C, Table C-2, and Appendix D, Table D-2.

Estimated program budget (total) by year- include table with budget per year

See Appendix B, PUC Table 9 and Appendix C, Table C-1 for program budget by year.

Estimated percentage of sector budget attributed to program

See Appendix B, PUC Table 4, Appendix B, PUC Table 6, Appendix B, PUC Table 12 and Appendix C, Table C-1 for sector and program level budget results.

Cost-effectiveness- include gross and net TRC and net-to-gross (NTG) ratio for each program

See Appendix B, PUC Table 13 for PA TRC ratios for this program on both a gross and net basis and the net-to-gross ratios assumed for each program. See Appendix B, PUC Table 7 and Appendix D, Table D-2 for the measure life and net-to-gross ratios assumed for each program measure. See Section 8.0 for information regarding the avoided cost calculations and inputs.

Bidding strategy for peak demand reductions into PJM’s FCM. Include a description of the strategy and approach of offering resources into the PJM capacity market. The description should include an estimated range of MW and a trajectory of that MW over time

See Section 1.6 for a description of the Companies’ strategy and approach to offering resources into the PJM capacity market. See Appendix C, Table C-3 for the estimated range of MW over time associated with the Companies’ Phase IV Plan.

Other information deemed appropriate

None.

3.2.2 RESIDENTIAL ENERGY EFFICIENT HOMES PROGRAM

Program years during which program will be implemented

June 2021 - May 2026

Objective(s)

The primary objective of this program is to educate customers on energy efficiency and encourage customers to retrofit existing technologies with more efficient ones, adopt energy savings behaviors, and to promote other energy efficiency opportunities to customers to conserve and save energy in their homes. An additional program objective is to encourage residential developers, builders, and contractors to build energy efficient new homes.

In addition to the various educational components of this program, the program also provides low cost direct install items through several program components that customers can install by themselves to promote adoption of energy efficiency and conservation mindsets and measures. In addition, the program provides a gateway to other programs because the education directly relates to energy efficiency and conservation and promotes other residential program offerings available to customers.

Target market

All residential customers of the Companies, including residential developers, builders, and contractors in the Companies' service territories.

Program Description

The Energy Efficient Homes Program engages customers through various subprogram components to provide energy efficiency and energy usage education and awareness. The program also provides measures, recommendations, and/or incentives for customers to improve energy efficiency and conservation in their homes. The program provides the following subprogram components to customers:

- **EE Kits:** The subprogram provides customers with an energy efficiency kit to introduce and promote energy efficient technologies that can be easily installed in the home. The kits serve as a gateway to other programs by including energy efficiency and conservation educational materials and promotional materials regarding additional program opportunities available to customers.
- **Behavioral:** The Behavioral subprogram educates customers regarding their home energy usage and provides recommendations to implement and adopt energy efficiency and conservation measures to reduce their energy usage. This subprogram provides customized home energy reports about each customer's energy usage, as well as analysis regarding their

November 30, 2020

March 1, 2021

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usage over time, with specific tips and recommendations that promote energy efficiency and conservation opportunities and additional program offerings available to them. The reports help customers to understand how their energy consumption compares to similarly sized and equipped homes; understand how their energy use changes over time and across seasons; and develop goals and strategies to reduce their energy use. This subprogram also offers an online audit tool that similarly provides recommendations for home energy efficiency and conservation opportunities and information regarding other programs that may benefit the customer. The online audit tool converts the customers' input of their energy usage characteristics into information the customers can understand and act upon, such as the cost of heating and cooling their homes, a usage comparison graph, and tips on how to save energy.

- **School Education:** The School Education subprogram provides energy efficiency education and awareness through students for customers to conserve energy in their homes. This subprogram is a classroom-based education program that is delivered by educators and/or contracted performers in schools. This subprogram also utilizes low cost direct install items that customers can install by themselves to better promote adoption of energy efficiency and conservation mindsets and measures by having the students work with their families.
- **Comprehensive Audit:** The Comprehensive Audits subprogram provides a customer with a comprehensive audit with direct installation of low-cost measures performed by Building Professional Institute (BPI) Certified auditors. The audit includes a diagnostic test of the home's air infiltration, plus a customized report that provides recommendations for home energy efficiency improvements such as: insulation, air sealing and duct sealing. The subprogram provides financial incentives towards the installation of the recommended comprehensive measures.
- **Multifamily:** The Multifamily subprogram provides energy efficiency education to multifamily building owners and building tenants while completing energy assessments, installing standard energy savings measures, and recommending energy efficiency improvements. This subprogram ~~may~~will provide financial incentives towards the installation of audit recommended comprehensive energy savings opportunities, including prescriptive equipment replacement and custom retrofit projects, including but not limited to, insulation, air sealing, duct sealing, heat pumps, residential heat pump water heaters, and residential appliances.
- **New Homes:** The New Homes subprogram provides incentives to builders for achieving energy efficiency savings and targets through a combination of building shell and installed measures, including appliance and equipment upgrades. To qualify for this program, the builder must construct the home to meet the energy efficiency requirements established by the ENERGY STAR program or build at a higher efficiency level than the current adopted building code.

Implementation strategy (including expected changes that may occur in different program years)

The Companies will contract with implementation CSP(s) who will directly administer and manage delivery of the program. Implementation activities will include marketing the program through

multiple channels, validating customer eligibility, processing incentives, and conducting outreach to and securing partnerships with trade allies to ensure customers are able to easily participate in the program. Specific subprogram implementation strategies include:

- **EE Kits:** The implementation CSP will be responsible for marketing, outreach, enrollment, and fulfillment aspects of this subprogram. The subprogram will target new residents within the Companies' service territories. Customers may also be able to opt-in to the subprogram by phone or website by providing their account number and other information.
- **Behavioral:** The implementation CSP will conduct the energy usage analysis and develop and deliver customized home energy reports to customers by mail and/or email. The home energy reports will provide customers with meaningful comparisons regarding their usage relative to a peer group, based on home location, size, and other criteria. The reports deliver information in a simple way, providing customers with the necessary information to take appropriate actions to reduce their energy use, along with marketing modules that promote additional residential program offerings. Customers will also have access to online functionality provided under the subprogram that customers can easily utilize to see additional tips on how to save energy, complete the online audit tool, and review their historical usage. For the online audit, the Companies plan to utilize their enterprise-wide Online Audit tool.
- **School Education:** The implementation CSP will be responsible for marketing and fulfillment aspects of this subprogram. The CSP will develop an implementation plan that involves marketing activities to target schools to inform them of the subprogram's offering, components, and benefits and to achieve program buy-in from school administration. The CSP will also develop educational materials to support delivery of this subprogram. These items may include student curriculum with energy conservation lessons and teacher materials for classroom instruction. An energy efficiency kit will be utilized to introduce simple retrofit measures that the student can work with at home with their parent's involvement.
- **Comprehensive Audit:** The implementation CSP will be responsible for the ongoing implementation of the program, including staffing, promotional strategies, and processes ensuring quality and other controls supporting successful program implementation. The CSP will engage trade allies such as insulation, weatherization, heating and cooling contractors who will be recruited to partner in this subprogram in addition to Building Professional Institute (BPI) Certified auditors. The CSP will utilize the trade allies' network to promote further comprehensive retrofits recommended under this subprogram.
- **Multifamily:** The implementation CSP will be responsible for the ongoing implementation of the program, including staffing, promotional strategies, and processes ensuring quality and other controls supporting successful program implementation. The CSP will engage trade allies, such as insulation, weatherization, heating, and cooling contractors, who will be recruited to partner in this subprogram in addition to professional or Building Professional Institute (BPI) Certified auditors. The CSP will utilize the trade allies' network to promote further comprehensive retrofits recommended under this subprogram.
- **New Homes:** The CSP will be responsible for marketing activities, such as educational materials, promotional brochures, and presentations, to target and conduct outreach to home builders to inform them of the program offering, components, and benefits and to achieve program buy-in and their participation. This program supports implementation of builder or

contractor-installed energy efficient appliances, HVAC, and other eligible systems and equipment in new residential homes, as well as measures addressing building shell and other energy consuming features.

The Companies plan to issue the RFP(s) for this program by the end of first quarter 2021 and plan to select the implementation CSP(s) in a timeframe that supports a seamless transition and implementation from the current program beginning June 1, 2021, upon Commission approval of the CSP contract(s) and program.

Program issues and risks and risk management strategy

The risks associated with this program are primarily getting enough customers to participate in the program. Well-established and innovative marketing techniques will be used to promote the participation in this program. The Companies will monitor the program performance and adjust marketing, outreach, and/or incentives where applicable to mitigate this risk.

Anticipated key barriers that may pose a risk to this program include:

- **Customer Awareness and Engagement:** Residential customers may not be fully aware of energy efficiency opportunities for their home. This program addresses this barrier by providing customers with energy efficiency and energy usage education and awareness, along with measures, specific tips, and recommendations that promote energy efficiency and conservation opportunities and programs available to them.
- **Initial Cost of Home Retrofits:** Home retrofits are more expensive and more involved than purchasing efficient equipment and, therefore, require more participant investment and commitment. Customers must be willing and able to invest in more expensive energy-efficiency projects. The Companies address this barrier by offering incentives for audit recommended retrofits.
- **Trade Ally Awareness and Training:** To meet certain subprogram participation goals, sufficient auditors and contractors must be available to undertake the work. The Companies will work with their implementation CSP(s) to address this barrier by trying to engage and recruit more program and trade allies to participate in select subprograms.

The Companies will seek to manage barriers to program success through a commitment to monitoring program performance and feedback channels for assessing effective program design, delivery, outreach, and marketing/advertising, and improvement opportunities. The Companies and/or the implementation CSP(s) will monitor participation and performance to assess, where applicable, the effectiveness of program services, outreach efforts, incentive levels, delivery methods, and both program ally and trade ally availability, so that they can provide suggestions on how to assure that the program is continually providing customers with their needs.

Anticipated costs to participating customers

Customers will have to pay the balance of equipment and installation costs not covered by the rebate. See Appendix B, PUC Table 7 for the incremental cost and incentive range for each measure in this program.

The EE Kits, Behavioral, and School Education subprograms are provided at no additional cost to the customer.

Ramp up strategy

The Companies anticipate a seamless transition and implementation upon Commission approval of the program and CSP contract(s). For the existing program measures being offered in the new Plan, there will be some ramp-up period needed to transition to the new Plan period with the implementation vendors. For new and expanded program measures, it is anticipated that it will take approximately three- to six-months to start-up new or expanded program measures after program approval. See discussion in Section 1.4 for more details on ramp up.

Marketing strategy

In general, the Companies' implementation CSP(s) will develop and administer the marketing plan for each subprogram under management by the Companies. Marketing activities will target eligible customers to inform them of the subprogram, its components, and the associated benefits as needed to meet program goals through channels such as bill inserts, e-mail, online advertisements, direct mail, social media, Home Energy Reports, and the Companies' website. In addition, certain subprograms will implement cross marketing that will be used in conjunction with other residential programs to promote additional participation.

The CSP(s) for the Comprehensive Audit and Multifamily subprograms will also market and promote comprehensive retrofits to customers, including the cost-saving benefits, information on typical payback time frames and rebates. In addition, each participant will be given rebate applications and marketing materials for other applicable program offerings at the time of the audit. The CSP(s) will attempt to follow up with participants to measure satisfaction with the subprogram in general and with delivery personnel. The CSP(s) will also identify customers who did not complete additional retrofit measures to understand the barriers to moving forward with comprehensive projects. The follow-up will be considered on an ongoing basis to improve future marketing strategies and program design.

The marketing strategy for the Multifamily subprogram will focus on informing property owners, managers, associations, tenant groups, municipalities, and community organizations about the availability and benefits of the subprogram and how to participate.

Contractors participating in the subprogram may also market to potential customers through various activities (e.g., flyers, radio advertising, social media, home events, etc.).

The CSP for the New Homes subprogram will target home builders, HERs raters, and eligible customers to inform them of the program changes, the new measures, its components, and the associated benefits through education via discussions, newsletters, and e-mails to the building community and through the Companies' website. The CSP will actively recruit participants through existing builder and rater partners, other utility programs, local home builder associations (HBAs), green building programs, and other allies who have established relationships within the residential construction community.

Key elements of the marketing strategy for in-home/in-building and new construction subprograms may include:

- Targeted outreach through direct mailings and presentations to inform customers, builders, developers, property owners, property managers, apartment associations, tenant groups, municipalities, and community organizations about the benefits of the program offerings and participation processes.
- Printed collateral highlighting the benefits and features of the subprograms as well as the enrollment and participation processes.
- Website content providing subprogram information resources and contact information.
- In-person visits by program representatives to qualified customers.
- Energy assessments of properties that may include the direct installation of standard energy savings measures to engage, educate, and promote participation by the customer, building owner, or facility manager in the other subprogram offerings, thereby targeting deeper savings.

Eligible measures and incentive strategy showing incremental cost assumptions, gross measure-level TRC ratio, and incentive levels (e.g., \$ per measure, \$ per kWh or MW saved)

Refer to Appendix B, PUC Table 7 for the eligible measures, eligibility, and incentive strategy for this program.

The minimum qualifying efficiency ratings for select program measures are based on meeting either ENERGY STAR® requirements or other requirements that exceed the current Federal Standard. The Companies have adopted new Federal Standards and revised eligibility requirements for certain applicable measures. This program has been designed based on applying established efficient conditions per the PA TRM or other sources, which rely on ENERGY STAR®, CEE, or other standards and specifications for certain applicable measures. Given the potential of changing standards and specifications for the eligible products under the program during the term of this Phase IV Plan, the Companies may implement tier level or incentive changes for certain applicable measures in conjunction with future specification changes to maintain program continuity and implement timely on-going energy efficiency improvements.

Incentives for select program measures will be available in several ways and are adapted to the retail partner or program needs and market response. Strategies may include:

- Mail-in applications available from the retailer, program website or directly from participating contractors; and
- Online rebate forms.

The Companies may change incentives after communicating incentive changes with stakeholders consistent with past practices.

In instances where incentives are not immediate, the Companies will complete consumer or contractor payments within 60 days following completion of contractor work, submission of complete and required paperwork, and completion of program requirements, such as necessary field inspections (if required).

The basis for proposed level of incentives and the sharing of incremental measure costs between participants and the EDC

The Companies propose to provide a range of incentives depending on the subprogram and measure type, subject to changes within the “Up to” incentive amounts, based upon customer response and market conditions over the Plan period. The Companies strive to balance the sharing of incremental measure costs between the Companies and participants with subprogram performance and progress to goals. The Companies will set and adjust incentives based on many factors, including, but not limited to, their experience, the experience of their affiliates, consultant, or CSPs, stakeholder input, and industry benchmarking. Incentives will vary depending on factors, including, but not limited to, the specific subprogram, end-use and measure, the incremental cost of the high-efficiency technology, and the product maturity in the marketplace.

Maximum deadline for rebates including clear and reasonable rationale for any timeframe longer than 180 days

For the Comprehensive Audit and Multifamily subprograms, installation of major measures must be completed within 180 days from the date of the energy audit, rebate applications must be received within 180 days of measure installation, and the rebate applications must be postmarked by June 7, 2026. All services must be purchased and installed between June 1, 2021, and May 31, 2026.

For the New Homes subprogram, the deadline for submittal of applications is 180 days after home construction is completed and no later than June 7, 2026. Home construction and rating must be completed between June 1, 2021, and May 31, 2026.

Program start date with key schedule milestones

The Companies anticipate a seamless transition and implementation upon Commission approval of the program and CSP contract(s). For the existing program measures being offered in the new Plan, there will be some ramp-up period needed to transition to the new Plan period with the

implementation vendors. For new and expanded program measures, it is anticipated that it will take approximately three- to six-months to start-up new or expanded program measures after program approval. See discussion in Section 1.4 and Figure 2 for more details on the program start date with schedule milestones.

Assumed Evaluation, Measurement, and Verification (EM&V) requirements required to document savings by the Commission’s statewide EE&C Plan Evaluator

The Companies will retain an Independent EM&V Contractor to perform evaluation, measurement, and verification of the program in accordance with the state’s Evaluation Framework. Activities for this program may include:

EE Kits and School Education:

- For provided measures, a sample of customers will be surveyed to assess receipt and installation of measures.

Behavioral:

- Program impacts will be measured through billing analysis with a randomized control trial approach in accordance to the PA Evaluation Framework. The EM&V Contractor will perform participation uplift adjustments and avoided decay calculations in accordance with the PA TRM.

Comprehensive Audit and Multifamily:

- Verify that the planned number of each type of audit is performed on time and within budget. A sample of audits will be reviewed to check that their actual costs do not exceed the contract cost and that customers are satisfied with the service.
- Verify that existing EE&C opportunities are properly quantified to enable accurate tracking and documentation of energy efficiency and demand reduction.
- For installed measures and retrofit projects, verify that the installed measures and comprehensive diagnostics are performed as supported on program applications.

New Homes:

- Select a representative sample of homes for comprehensive measurement and verification, including reviewing both the baseline and as-built home properties as documented in a RESNET accredited building simulation program.
- Verify the models and their associated impacts for sampled homes through on-site data collection. Gather as-built data through independent on-site visits and review of data gathered during quality assurance / quality control visits.

As part of the monitoring process, the Companies plan to use selected indicators to verify periodically that energy savings and demand reduction are being realized as projected. A tracking

and reporting system will be used for such monitoring. If EE&C program indicators show that projected EE&C targets are not likely to be achieved on schedule or within budget, the Companies will take appropriate corrective actions such as changing marketing and/or incentive levels.

The Companies will document, store, and send measure data to the SWE, as requested, using specified data transmission protocols, processes, and technology.

Administrative requirements- include internal and external staffing levels

The Companies will use a combination of internal and external resources to manage and implement the EE&C programs. The Companies will monitor and adjust the allocation of resources to balance the needs of each program. See Sections 4.2.1 and 4.2.2 of the EE&C Plan for more details.

Savings targets and estimated participation – include tables with estimated total MWH/yr and MW goals per year and/or ranges per year and cumulative tables that document key assumptions of estimated savings ranges per measure as well as estimated participation

See Appendix B, PUC Table 8, Appendix C, Table C-2, and Appendix D, Table D-2.

Estimated program budget (total) by year- include table with budget per year

See Appendix B, PUC Table 9 and Appendix C, Table C-1 for program budget by year.

Estimated percentage of sector budget attributed to program

See Appendix B, PUC Table 4, Appendix B, PUC Table 6, Appendix B, PUC Table 12 and Appendix C, Table C-1 for sector and program level budget results.

Cost-effectiveness- include gross and net TRC and net-to-gross (NTG) ratio for each program

See Appendix B, PUC Table 13 for PA TRC ratios for this program on both a gross and net basis and the net-to-gross ratios assumed for each program. See Appendix B, PUC Table 7 and Appendix D, Table D-2 for the measure life and net-to-gross ratios assumed for each program measure. See Section 8.0 for information regarding the avoided cost calculations and inputs.

Bidding strategy for peak demand reductions into PJM’s FCM. Include a description of the strategy and approach of offering resources into the PJM capacity market. The description should include an estimated range of MW and a trajectory of that MW over time

See Section 1.6 for a description of the Companies’ strategy and approach to offering resources into the PJM capacity market. See Appendix C, Table C-3 for the estimated range of MW over time associated with the Companies’ Phase IV Plan.

Other information deemed appropriate

None.

3.2.3 LOW-INCOME ENERGY EFFICIENCY PROGRAM

Program years during which program will be implemented

June 2021 - May 2026

Objective(s)

The primary objectives of this program are to achieve energy savings in low-income households through a variety of program offerings that: (i) provide energy efficiency and conservation and energy usage education; (ii) promote adoption of energy saving behaviors; (iii) provide or install basic to comprehensive, prescriptive energy efficiency, and comprehensive whole building measures; (iv) encourage customers to turn in inefficient appliances, retrofit existing end-use technologies with more efficient ones, or implement new end-use technologies; and (v) achieve the construction of energy efficient low-income new homes.

Target Market

The target market for this program are customers who are income-qualified up to 150% of the Federal Poverty Income Guideline (FPIG).

Program description

The Low-Income Energy Efficiency Program includes a variety of program services, delivery channels, and vendors to support customer engagement, education, and participation to achieve energy savings in low-income households. The program includes direct or targeted offerings that both engage customers by providing them with energy efficiency education as well as information regarding other available program services and opportunities.

The program offerings incorporate strategies to change behaviors and provide prescriptive measures, direct install measures, and whole home/comprehensive solutions at no-cost as well as enhanced incentives for select measures that collectively address the initial cost barrier to promote and achieve participation by low-income customers. The program also targets the construction of new energy efficient low-income housing. This program includes the following subprograms:

- **Appliances:** Includes enhanced incentives for ENERGY STAR and other energy efficient appliances and [will promote higher efficiency levels, where available, through both marketing and enhanced tiered incentives. The subprogram will also provide enhanced incentives](#) for the pick-up and recycle service to income-qualified customers for turning in qualifying, inefficient, operating appliances. Qualifying appliances will be picked up at the

customer's residence. In addition, periodic events may be offered at centralized drop-off locations where customers can drop off smaller qualified inefficient operating appliances, such as dehumidifiers and room air conditioners.

- **EE Kits:** The Energy Efficiency Kits subprogram provides customers with an energy kit that includes easy to install energy efficiency measures as well as efficiency education and awareness for income-qualified customers to become more efficient and conserve energy in their homes. The subprogram will also target low-income participation through community events, non-profits and other target marketing. The kits serve as a gateway to other programs by including energy efficiency and conservation educational materials and promotional materials regarding additional opportunities available to customers.
- **Behavioral:** The Behavioral subprogram educates customers regarding their home energy usage and provides recommendations to implement and adopt energy efficiency and conservation measures to reduce their energy usage. The CSP will use utility and data analytics to identify and target participation among low-income customers and will provide customized Low Income Home Energy Reports to these customers promoting low to no-cost recommendations and other program opportunities available to them including income-qualified programs. The reports help customers to understand how their energy consumption compares to similarly sized and equipped homes; understand how their energy use changes over time and across seasons; and develop goals and strategies to reduce their energy use. This subprogram also offers an online audit tool that similarly provides recommendations for home energy efficiency and conservation opportunities and additional program opportunities available to customers. The online audit tool converts the customers' input of their energy usage characteristics into information the customers can understand and act upon, such as the cost of heating and cooling their homes, a usage comparison graph, and tips on how to save energy.
- **School Education:** The School Education subprogram provides energy efficiency education and awareness through students for customers to conserve energy in their homes. The CSP will seek to include schools in areas that have a higher population of low-income customers. This subprogram is a customized classroom-based education program that is delivered by educators and/or contracted performers in schools. This subprogram also utilizes low cost direct install items that customers can install by themselves to better promote adoption of energy efficiency and conservation mindsets and measures by having the students work with their families.
- **Multifamily:** The Multifamily subprogram provides energy efficiency education to multifamily building owners and tenants during energy assessments, installation of standard energy savings measures, and [HVAC, water heating and/or](#) appliance replacements. The subprogram also provides recommendations for energy efficiency improvements. The energy assessment will examine major end uses including appliances, lighting, and HVAC systems, including building systems and building shell, and will provide customers with a list of energy savings opportunities and measures and the associated energy savings impacts. Workshops providing energy education to tenants may be conducted as appropriate. The CSP for this subprogram will manage all residential and commercial multifamily programs to avoid duplicating efforts for projects and will strive to coordinate with national and state

November 30, 2020

March 1, 2021

housing programs. The subprogram provides direct installation of measures and financial incentives towards the installation of recommended building and common area energy savings opportunities including prescriptive equipment replacement and custom retrofit projects, [including but not limited to, insulation, air sealing, duct sealing, heat pumps, residential heat pump water heaters and residential appliances.](#)

- **New Homes:** The New Homes subprogram provides incentives to builders for achieving energy efficiency savings and targets through a combination of building shell and installed measures, including appliance and equipment upgrades. To qualify for this program, the builder must construct the home to meet the energy efficiency requirements established by the ENERGY STAR program or build at a higher efficiency level than the current adopted building code. To identify potential projects, the Companies will work with the Pennsylvania Housing Financing Agency (PHFA) or other entities.
- **Weatherization:** This subprogram is an expansion of the existing comprehensive Low-Income Usage Reduction Program (LIURP), also known as the WARM program. The WARM Plus program serves additional homes with comprehensive weatherization services and [appliance replacements.HVAC, water heating and/or appliance replacements, including but not limited to, insulation, air sealing, duct sealing, heat pumps, residential heat pump water heaters and residential appliances.](#) The WARM Extra Measures subprogram provides additional electric energy savings measures above and beyond those provided to customers in individually metered residential properties that are participating in LIURP, [including but not limited to, heat pumps, residential heat pump water heaters and residential appliances.](#) The Companies have pursued opportunities to coordinate providing these services to qualified customers with Natural Gas Distribution Companies (NGDCs) and the Department of Community and Economic Development (DCED) Weatherization Assistance Program during Phases I, II, and III, including providing program referrals and/or leveraging common contractors. The Companies plan to continue pursuing [these and](#) additional [coordination opportunities with other programs in their service territory](#) during Phase IV, where available.

Implementation strategy (including expected changes that may occur in different program years)

The Companies will contract with implementation CSP(s) who will directly administer and manage delivery of the program and providing program services. Implementation activities will include, where applicable, efforts to raise awareness of the subprogram, outreach, enrollment, and fulfillment of program delivery, on-going refinements to the program-provided services, validating customer eligibility, processing incentives, and conducting outreach to and securing partnerships with trade allies to ensure customers are able to easily participate in the program. Specific subprogram implementation strategies include:

- **Appliances:** The implementation CSP will directly administer and manage delivery of the program and fulfilling program services. Implementation activities will include efforts to raise awareness of the program, on-going refinements to the list of eligible measures, validating

customer eligibility and processing incentives, and conducting outreach to and securing partnerships with retailers, wholesalers, distributors, manufacturers, and trade allies to ensure customers are able to easily purchase energy efficient products through the program. Appliance Recycling will be delivered through an implementation CSP that specializes in proper appliance recycling. The CSP will be responsible for marketing, scheduling appointments, picking up / recycling of qualified working appliances, processing rebates, and handling customer inquiries. The CSP will also market, schedule, staff, and handle pick up / recycling of qualified working appliances at special events. Each unit collected is disposed of in an environmentally responsible way, in compliance with the U.S. Environmental Protection Agency's ("EPA") Responsible Appliance Disposal ("RAD") criteria.

- **EE Kits:** The implementation CSP will be responsible for marketing, outreach, enrollment, and fulfillment aspects of this subprogram. The subprogram will target income qualified customers. Typically, these are customers who do not accept in-home services, or their landlord does not accept services, or they otherwise are not eligible for other low-income program services. Customers may also be able to opt-in to the subprogram by phone or website by providing their account number and other information.
- **Behavioral:** The implementation CSP will conduct the energy usage analysis and develop and deliver customized Low Income Home Energy Reports to income qualified customers by mail and/or email. The Home Energy Reports will provide customers with meaningful comparisons regarding their usage relative to a peer group, based on home location, size, and other criteria. The reports deliver information in a simple way, providing customers with the necessary information to take appropriate actions, including low- to no-cost recommendations to reduce their energy use, along with marketing modules that promote additional residential program offerings. Customers will also have access to online functionality provided under the subprogram that customers can easily utilize to see additional tips on how to save energy, complete the online audit tool, and review their usage over a period of time. For the online audit, the Companies plan to utilize its enterprise-wide Online Audit tool.
- **School Education:** The implementation CSP will be responsible for marketing and fulfillment aspects of this subprogram. The CSP will develop an implementation plan that involves marketing activities to target schools in areas that have a higher population of low-income customers to inform them of the subprogram offering, components, and benefits and to achieve program buy-in from school administration. The CSP will also develop educational materials to support delivery of this subprogram. These items may include student curriculum with energy conservation lessons and teacher materials for classroom instruction. An energy efficiency kit will be utilized to introduce simple retrofit measures that the student can work with at home with their parent's involvement.
- **Multifamily:** The implementation CSP will be responsible for the ongoing implementation of the program, including staffing, development and maintenance of website(s), promotional strategies, and processes ensuring quality and other controls supporting successful program implementation. The CSP will engage trade allies and subcontractors, such as insulation, weatherization, heating, and cooling contractors who will be recruited to partner in this subprogram in addition to Building Professional Institute (BPI) Certified auditors. The CSP will utilize the trade allies' network and subcontractors to promote further comprehensive retrofits recommended under this subprogram.

- **New Homes:** The CSP will develop an implementation plan that involves marketing activities, educational materials, promotional brochures, and presentations to target and conduct outreach to home builders to inform them of the program offering, components, and benefits and to achieve program buy-in and their participation. This program supports implementation of builder or contractor-installed energy efficient appliances, HVAC, and other eligible systems and equipment in new residential homes, as well as measures addressing building shell and other energy consuming features.
- **Weatherization:** The implementation CSP will recruit professional or Building Professional Institute (BPI) Certified subcontractors and/or trade allies to participate in the program, including Community Based Organizations (“CBOs”) and/or additional vendors, to perform energy audits and installation services. The Companies will work with the CSP to ensure efficient program referrals and coordination with the Companies’ LIURP, DCED Weatherization Assistance Program, and the NGDC Programs.

The Companies will coordinate the low-income energy efficiency program offerings with other programs in the Companies’ service territories and will present and solicit input on their coordination efforts with stakeholders on an annual basis throughout Phase IV implementation.

The Companies plan to issue the RFP(s) for this program in early 2021 and plan to select the implementation CSP(s) in a timeframe that supports a seamless transition and implementation from the current program beginning June 1, 2021, upon Commission approval of the CSP contract(s) and program.

Program issues and risks and risk management strategy

The risks associated with this program are primarily identifying income-qualified customers and getting enough customers to participate in some of the subprograms. Well-established and innovative outreach and marketing techniques will be used to help identify income-qualified customers and promote participation in this program. The Companies will monitor the program performance and adjust marketing, outreach, and/or incentives where applicable to mitigate this risk.

Anticipated key barriers that may pose a risk to this program include:

- **Customer Awareness and Engagement:** Low-income customers may not be fully aware of energy efficiency opportunities for their home. This program addresses this barrier by providing customers with targeted outreach, energy efficiency and energy usage education and awareness, and specific tips and recommendations that promote energy efficiency and conservation opportunities and available program services.
- **Customer Awareness and Engagement:** Many customers are unaware of the “whole house” approach to energy-efficiency or the fact that building science exists. The Companies will work to address this by:
 - Continuing to educate customers about the program and how the home occupants, the structure, and equipment work together;

- Highlighting the extra training and BPI certification that contractors must have;
 - Identifying how the shell measure improvements can improve their comfort within the home;
 - Noting that the program includes health and safety testing and repairs to allow energy-saving measures to be installed; and
 - Reinforcing that the installation of equipment and shell measures may increase the value of their home.
- **Initial Cost of Efficient Equipment:** Relative to the market baseline, efficient equipment often carries a higher upfront cost but a lower lifetime operating cost. Low-income customers often may not fully value the lifetime operating cost advantage of efficient equipment and, as a result, higher upfront cost is a barrier to purchasing efficient equipment. To address this barrier, select prescriptive measures are provided at no additional cost and enhanced incentives are provided on other select measures to reduce the initial cost to income qualified customers.
 - **Cost of Home Retrofits:** Low-income customers may not have the financial ability to invest in home retrofits. The Companies address this barrier by providing direct install measures and whole home/comprehensive solutions at no-cost to addresses the initial cost barrier to promote and achieve participation by low-income customers.
 - **Subcontractor and Trade Ally Awareness and Training:** To meet certain subprogram participation goals, sufficient auditors and contractors must be available to undertake the work. The Companies will work with its implementation CSP(s) to address this barrier by trying to engage and recruit more qualified program and trade allies to participate in select subprograms.

[Additionally, health and safety issues may restrict providing certain program services to customers. The Companies will work with their universal service program administrators to develop and maintain a list of available housing rehabilitation providers that the implementation CSP will provide to households when these issues cannot be remediated through the Companies' programs.](#)

The Companies will seek to manage barriers to program success through a commitment to monitoring program performance and feedback channels for assessing effective program design, delivery, outreach, and marketing/advertising, and improvement opportunities. The Companies and/or the implementation CSPs will monitor participation and performance to assess, where applicable, the effectiveness of program services, outreach efforts, incentive levels, delivery methods, and both program ally and trade ally availability, so that they can provide suggestions on how to assure that the program is continually providing customers with their needs.

Anticipated costs to participating customers

Customers and/or landlords will have to pay the balance of equipment and installation costs not covered by the rebate/incentives for the Low-Income Appliances and Multifamily subprogram. See Appendix B, PUC Table 7 for the incremental cost and incentive range for each measure in this program.

The Low-Income EE Kits, Behavioral, School Education, and Weatherization subprograms are provided at no additional cost to income-qualified customers.

Ramp up strategy

The Companies anticipate a seamless transition and implementation upon Commission approval of the program and CSP contract(s). For the existing program measures being offered in the new Plan, there will be some ramp-up period needed to transition to the new Plan period with the implementation vendors. For new and expanded program measures, it is anticipated that it will take approximately three- to six-months to start-up new or expanded program measures after program approval. See discussion in Section 1.4 for more details on ramp up.

Marketing strategy

Marketing and outreach activities will target income-eligible customers to inform them of the program. The marketing strategy will include, but is not limited to, marketing activities coordinated with other Act 129 programs, the Companies and other state low-income programs such as the Customer Assistance Program, Dept. of Public Welfare, PHFA, DCED Weatherization Assistance Program, the NGDC Programs and CBO initiatives. The EE Kits and energy usage reports will also serve as a portal to educate the customer on other program opportunities available to them.

In general, the Companies' implementation CSP(s) will develop and administer the marketing plan for each subprogram under management by the Companies. Marketing activities will target income-eligible customers to inform them of the subprogram, its components, and the associated benefits as needed to meet program goals through channels such as Companies' bill inserts, Companies' website, direct mail campaigns, radio, newspaper and internet advertising, bus signs, posters, postcards, energy-usage reports, giveaways, and/or special promotional events, senior citizen and low-income information fairs and community presentations as needed. In addition, certain subprograms will implement cross marketing that will be used in conjunction with other low-income subprograms to promote additional participation.

The marketing strategy for the Multifamily low-income subprogram will focus on informing property owners, managers, associations, tenant groups, municipalities, and community organizations about the availability and benefits of the program and how to participate. The CSP for the Multifamily subprogram will also market and promote comprehensive retrofits to customers, including the cost-saving benefits, information on typical payback time frames and direct installation measures and cost-share rebates to better prepare the customer for the decisions and financial investments associated with and to promote the customer completing comprehensive retrofit projects. In addition, each participant will be given applications and marketing materials for other applicable program offerings at the time of the audit. The CSP will also attempt to follow up with participants, either through a telephone call or customer satisfaction survey to measure satisfaction with the subprogram in general and with delivery personnel. The CSP will also identify customers who did not complete additional retrofit measures to provide additional guidance or to understand the barriers to completing comprehensive projects. The follow-up will be considered on an ongoing basis to improve future marketing strategies and program design.

The CSP for the New Homes subprogram will target home builders, HERs raters, and eligible customers to inform them of the program changes, the new measures, its components, and the associated benefits through education via discussions, newsletters, and e-mails to the building community, and the Companies' website. The CSP will actively recruit participants through existing builder and rater partners, other utility programs, local home builder associations (HBAs), green building programs, and other allies who have established relationships within the residential construction community.

Key elements of the marketing strategy for the low-income program may include:

- Brochures that describe the benefits and features of the program, including application forms and processes. The brochures will be available for various public awareness events (community events, presentations, seminars etc.).
- Bill inserts, bill messages, email, direct mail, social media platforms, billboards, and pop-up stores.
- Company website content providing program information resources, contact information, online application forms, and links to other relevant service and information resources.
- Customer representatives trained to promote the program to their customers.
- Presence at conferences and public events used to increase general awareness of the program and distribute program promotional materials.
- Targeted outreach through direct mailings and presentations to inform customers, builders, developers, property owners, property managers, apartment associations, tenant groups, municipalities and community organizations about the benefits of the low-income program offerings and participation processes.
- Printed collateral highlighting the benefits and features of the subprograms as well as the enrollment and participation processes.
- Website content providing subprogram information resources and contact information.
- In-person visits by program representatives to qualified customers.
- Energy assessments of properties may include the direct installation of standard energy savings measures to engage, educate, and promote participation by the customer, building owner, or facility manager in the other subprogram offerings, thereby targeting deeper savings.

Eligible measures and incentive strategy showing incremental cost assumptions, gross measure-level TRC ratio, and incentive levels (e.g., \$ per measure, \$ per kWh or MW saved)

Refer to Appendix B, PUC Table 7 for the eligible measures, eligibility, and incentive strategy for this program.

The minimum qualifying efficiency ratings for select program measures are based on meeting either ENERGY STAR® requirements or other requirements that exceed the current Federal Standard. The Companies have adopted new Federal Standards and revised eligibility requirements for certain applicable measures. This program has been designed based on applying established efficient conditions per the PA TRM or other sources, which rely on ENERGY STAR®, CEE, or other

standards and specifications for certain applicable measures. Given the potential of changing standards and specifications for the eligible products under the program during the term of this Phase IV Plan, the Companies may implement tier level or incentive changes for certain applicable measures in conjunction with future specification changes to maintain program continuity and implement timely on-going energy efficiency improvements.

Incentives for select program measures will be available in several ways and are adapted to the retail partner or program needs and market response. Strategies may include:

- Mail-in applications available from participating retailers, the program website or directly from participating contractors; and
- Online rebate forms.

The Companies may change incentives after communicating incentive changes with stakeholders consistent with past practices.

In instances where incentives are not immediate, the Companies will complete consumer or contractor payments within 60 days following completion of contractor work, submission of complete and required paperwork, and completion of program requirements, such as necessary field inspections (if required).

The basis for proposed level of incentives and the sharing of incremental measure costs between participants and the EDC

Most of the program measures are provided at no cost to income-qualified customers with the program paying the entire measure cost for participants. For the Appliances and New Construction subprograms, the Companies propose to provide a range of incentives depending on the subprogram and measure type, subject to changes within the “Up to” incentive amounts, based upon customer response and market conditions over the Plan period. The Companies strive to balance the sharing of incremental measure costs between the Companies and participants with subprogram performance and progress to goals. The Companies will set and adjust incentives based on many factors, including, but not limited to, their experience, the experience of their affiliates, consultant, or CSPs, stakeholder input, and industry benchmarking. Incentives will vary depending on factors, including, but not limited to, the specific subprogram, end-use and measure, the incremental cost of the high-efficiency technology, and the product maturity in the marketplace.

Maximum deadline for rebates including clear and reasonable rationale for any timeframe longer than 180 days

For the Appliances subprogram, rebate applications must be submitted within 180 days of purchase and be postmarked by June 7, 2026.

For the Multifamily subprogram, installation of major measures (e.g., appliance replacement, comprehensive retrofits) must be completed within 180 days from the date of the energy audit, and

rebate applications must be received within 180 days of measure installation and postmarked by June 7, 2026. All services must be purchased and installed between June 1, 2021, and May 31, 2026.

For the New Homes subprogram, the deadline for submittal of applications is 180 days after home construction is completed and no later than June 7, 2026. Home construction and rating must be completed between June 1, 2021, and May 31, 2026.

Program start date with key schedule milestones

The Companies anticipate a seamless transition and implementation upon Commission approval of the program and CSP contract(s). For the existing program measures being offered in the new Plan, there will be some ramp-up period needed to transition to the new Plan period with the implementation vendors. For new and expanded program measures, it is anticipated that it will take approximately three- to six-months to start-up new or expanded program measures after program approval. See discussion in Section 1.4 and Figure 2 for more details on the program start date with schedule milestones.

Assumed Evaluation, Measurement, and Verification (EM&V) requirements required to document savings by the Commission's statewide EE&C Plan Evaluator

The Companies will retain an Independent EM&V Contractor to perform evaluation, measurement and verification of the program in accordance with the state's Evaluation Framework. Activities for this program may include:

EE Kits and School Education:

- For provided measures, a sample of customers will be surveyed to assess receipt and installation of measures.

Behavioral:

- Program impacts will be measured through billing analysis with a randomized control trial approach in accordance to the PA Evaluation Framework. The EM&V Contractor will perform participation uplift adjustments and avoided decay calculations in accordance with the PA TRM.

Comprehensive Audit, Multifamily and Weatherization:

- Verify that the planned number of each type of audit is performed on time and within budget. A sample of audits will be reviewed to check that their actual costs do not exceed the contract cost, and that customers are satisfied with the service.
- Conduct surveys and check sample calculations of projected savings for accuracy and for compliance with the PA TRM guidelines.

- Verify that existing EE&C opportunities are properly quantified to enable accurate tracking and documentation of energy efficiency and demand reduction.
- For installed measures and retrofit projects, verify that the installed measures and comprehensive diagnostics are performed as supported on program applications.

New Homes:

- Select a representative sample of homes for comprehensive measurement and verification, including reviewing both the baseline and as-built home properties as documented in a RESNET accredited building simulation program.
- Verify the models and their associated impacts for sampled homes through on-site data collection: Gather as-built data through independent on-site visits and review of data gathered during quality assurance / quality control visits.

As part of the monitoring process, the Companies plan to use selected indicators to verify periodically that energy savings and demand reduction are being realized as projected. A tracking and reporting system will be used for such monitoring. If EE&C program indicators show that projected EE&C targets are not likely to be achieved on schedule or within budget, the Companies will take appropriate corrective actions such as changing marketing and/or incentive levels.

The Companies will document, store, and send measure data to the SWE, as requested, using specified data transmission protocols, processes, and technology.

Administrative requirements- include internal and external staffing levels

The Companies will use a combination of internal and external resources to manage and implement the EE&C programs. The Companies will monitor and adjust the allocation of resources to balance the needs of each program. See Sections 4.2.1 and 4.2.2 of the EE&C Plan for more details.

Savings targets and estimated participation – include tables with estimated total MWH/yr and MW goals per year and/or ranges per year and cumulative tables that document key assumptions of estimated savings ranges per measure as well as estimated participation

See Appendix B, PUC Table 8, Appendix C, Table C-2, and Appendix D, Table D-2.

Estimated program budget (total) by year- include table with budget per year

See Appendix B, PUC Table 9 and Appendix C, Table C-1 for program budget by year.

Estimated percentage of sector budget attributed to program

See Appendix B, PUC Table 4, Appendix B, PUC Table 6, Appendix B, PUC Table 12 and Appendix C, Table C-1 for sector and program level budget results.

Cost-effectiveness- include gross and net TRC and net-to-gross (NTG) ratio for each program

See Appendix B, PUC Table 13 for PA TRC ratios for this program on both a gross and net basis and the net-to-gross ratios assumed for each program. See Appendix B, PUC Table 7 and Appendix D, Table D-2 for the measure life and net-to-gross ratios assumed for each program measure. See Section 8.0 for information regarding the avoided cost calculations and inputs.

Bidding strategy for peak demand reductions into PJM's FCM. Include a description of the strategy and approach of offering resources into the PJM capacity market. The description should include an estimated range of MW and a trajectory of that MW over time

See Section 1.6 for a description of the Companies' strategy and approach to offering resources into the PJM capacity market. See Appendix C, Table C-3 for the estimated range of MW over time associated with the Companies' Phase IV Plan.

Other information deemed appropriate

None.

3.3 Commercial/Industrial Small Sector Programs:

The table below details the comparison of this sector’s programs included in the Phase III Plan with those included in this Phase IV Plan, along with a program description:

Table 9: Existing & New Small C/I Programs

Phase III Program	Proposed Phase IV Program	Program Description
Small Commercial & Industrial Programs		
C&I Energy Solutions for Business Program - Small	C&I Energy Solutions for Business Program - Small	The Energy Solutions for Business Program provides financial incentives to small commercial and industrial customers, including government, institutional and multifamily customers, to purchase and install qualifying energy efficiency equipment, recycle inefficient appliances, upgrade less efficient equipment to more efficient end use technology, retrofit specialized equipment and processes, applications and end uses, complete qualifying high efficiency building shell or system improvements. The Program will also promote behavioral savings, adoption of energy saving technologies and efficient building operations through customer education and outreach, audits with direct install measures, building tune-up, energy management strategies, meter data analysis, or retrocommissioning or building operations training to achieve energy savings.
C&I Demand Response Program - Small	N/A	N/A

The table below details each measure that is offered in the programs listed in Table 9 and whether it is an existing or new measure:

Table 10: Proposed Small C/I Portfolio

Program	Sub-Program	Measure	Measure Status
C&I Energy Solutions for Business Program - Small	Multi Family - SCI	MF - Tenant - DI - SCI - LI	Existing
		MF - Tenant - Prescriptive - SCI - LI	Existing
		MF - Tenant - Custom - SCI - LI	New
		MF - Common - Prescriptive - SCI - LI	New
		MF - Common - Custom - SCI - LI	New
		MF - Common - DI - SCI - LI	New
		MF - Tenant - DI - SCI	Existing
		MF - Tenant - Prescriptive - SCI	Existing
		MF - Tenant - Custom - SCI	New
		MF - Common - Prescriptive - SCI	New
		MF - Common - Custom - SCI	New
		MF - Common - DI - SCI	New
	Prescriptive - SCI	Air Conditioning - Level 1 <=5.4 Tn - SCI	Existing
		Air Conditioning - Level 1 >5.4 < 20 Tn - SCI	Existing
		Air Conditioning - Level 1 >=20 Tn - SCI	Existing
		Heat Pump - Level 1 <=5.4 Tn - SCI	Existing
		Heat Pump - Water & GeoT - ES Tier 3 - SCI	Existing
		Ductless Mini-Split HP - Level 3 - SCI	Existing
		PTAC - SCI	Existing
		PTHP - SCI	Existing
		Room Air Conditioner- SCI	Existing
		Smart Thermostat -Rebate - SCI	New
		HVAC - Custom - SCI	New
		Circulating Pump (Mid Strm) - SCI	New
		HVAC - Maintenance - SCI	New
		Furnace Fan (Retrofit or New to ECM) - SCI	New
		Lighting Control (Daylight & Occupancy) - SCI	Existing
		Linear Fluorescent - SCI	Existing
		LED Linear - SCI	Existing
		LED Channel Signage - SCI	Existing
		Exit Sign - SCI	Existing
		LED Fixture External - SCI	Existing
		LED Fixture Internal - SCI	Existing
		LED Lamp - SCI	Existing
		Lighting - Other - SCI	New
		Street & Area Lighting (Customer Owned) - SCI	Existing
LED Reach in Refrig / Frzer Light - SCI	Existing		
Lighting - Custom - SCI	New		
Network Lighting Control - SCI	New		

Program	Sub-Program	Measure	Measure Status
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Linear Lamp - MS - SCI	New
		High/Low Bay Lamp - MS - SCI	New
		LED Fixture - MS - SCI	New
		ECM Evap Fan Motor - SCI	New
		Evap Fan Controls - SCI	New
		Refrigerator - Reach In - SCI	Existing
		Freezer - Reach In - SCI	Existing
		Refrigerated Case Cover - SCI	Existing
		Anti Sweat Heater Controls - SCI	Existing
		Strip Curtain - SCI	Existing
		Ice Machine - SCI	Existing
		Beverage Vending Machine - Controls - SCI	Existing
		Beverage Vending Machine - Energy Star - SCI	Existing
		Steam Cooker - SCI	Existing
		Fryer - SCI	Existing
		Griddle - SCI	Existing
		Hot Food Holding Cabinet - SCI	Existing
		Combination Oven - SCI	Existing
		Convection Oven - SCI	Existing
		Dishwasher - SCI	New
		Induction Warmer/Rethermalizer Well - SCI	New
		Coffee Brewer - SCI	New
		Pre-Rinse Sprayer - SCI	Existing
		Agricultural Process Lighting	New
		Auto Milker Takeoff	Existing
		Dairy Scroll Compressor	Existing
		HE Ventilation Fans	Existing
		Heat Reclaimer	Existing
		High Volume Low Speed Fan	Existing
		Livestock Waterer	Existing
		Dairy Vac Pump VSD Control	Existing
		Low Pressure Irrigation	Existing
		Custom - Agricultural	New
	Dairy Refrigeration Tune-Up	New	
	Engine Block Heater Timer	New	
	Street Lighting (Tariff / Utility Owned(EMU))	Existing	
	Street Lighting (Tariff / Customer Owned(MU))	Existing	
	Refrigerator Recycling - SCI	Existing	
	Freezer Recycling - SCI	Existing	
	Room Air Conditioner Recycling - SCI	Existing	
Dehumidifiers Recycling - SCI	New		
	Prescriptive Other - SCI		

Program	Sub-Program	Measure	Measure Status
C&I Energy Solutions for Business Program - Small	Prescriptive Other - SCI	EV Charging Cord - Level 2 - SCI	New
		Clothes Washer Level 1&2 - SCI	Existing
		Clothes Washer Level 3 - SCI	Existing
		Clothes Dryer - SCI	Existing
		Refrigerator Level 1& 2 - SCI	Existing
		Refrigerator Level 3 - SCI	Existing
		Water Heater - Heat Pump - SCI	Existing
		Freezer - SCI	Existing
		Dehumidifier - SCI	New
		Water Cooler - SCI	New
		Monitor - SCI	Existing
		Computer - SCI	Existing
		Uninterruptible Power Supply (UPS) - SCI	Existing
		Imaging - SCI	Existing
		Small Network - SCI	New
	Advanced Pwr Strip - SCI	New	
	Custom - SCI	Custom - Process Improvement - SCI	Existing
		Custom - Compressed Air - SCI	Existing
		Custom - Motors - Three Phase - SCI	Existing
		Custom - Refrigeration - SCI	Existing
		Custom - Equipment/Servers - SCI	Existing
		Custom - HVAC/Chlr/Cntrl's - SCI	Existing
		Custom - VFDs < 10HP - SCI	Existing
		Custom - VFDs > 10 HP - SCI	Existing
		Custom - Bldg Improvements - SCI	Existing
		Custom - New Construction - SCI	New
	Custom - Audit & Education - SCI	Existing	
	Energy Management - SCI	Building Tune Up - SCI	Existing
		Virtual/Meter Data Commissioning - SCI	New
		Retrocommissioning - SCI	Existing
		Building Operations Training - SCI	Existing
		Energy Consultation - SCI	New
	Audits - SCI	Existing	

Below are the program descriptions for the Commercial/Industrial Small sector included in the Phase IV Plan:

3.3.1 C/I ENERGY SOLUTIONS FOR BUSINESS PROGRAM- SMALL

Program years during which program will be implemented

June 2021 - May 2026

Objectives

A primary objective of this program is to provide a solution for smaller commercial and industrial customers, including GNI customers, who are “harder to reach” and/or are interested in becoming more energy efficient. Smaller business customers may have more barriers to participation because they lack the technical expertise, time, or capital to research and apply for incentives or implement energy efficiency measures offered under traditional prescriptive or custom program offerings. Another objective of the program is to promote the installation of energy efficient equipment and to increase the efficiency of processes, buildings, building operations, and systems among small business customers. The program overcomes these barriers by providing customer engagement with educational and efficiency measures in addition to prescriptive, calculated, or performance-based incentives or midstream or upstream incentives or buydowns and providing support to manufacturers, distributors, contractors, and retailers that sell energy efficient products.

Target Market

The Energy Solutions for Business Program - Small will be available to all small commercial, industrial, and other small non-residential customers, including GNI customers, located within the Companies’ service territories. The program includes the Multifamily, Prescriptive, Prescriptive-Other, Custom, and Energy Management subprograms, which target small business and GNI customers as follows:

- **Multifamily:** The Multifamily subprogram provides customer engagement with energy efficiency education through energy assessments, targets the installation of standard energy savings measures, and promotes energy savings opportunities including prescriptive equipment replacement and custom retrofit projects. This subprogram targets non-residential metered multifamily property owners, property managers, and residents, including income-qualified occupants and owners of multifamily buildings.
- **Prescriptive:** The Prescriptive subprogram promotes the sale and installation of commercial grade efficient equipment across major end-use categories, including lighting, heating, and cooling equipment, agricultural and food service equipment, among other efficiency measures, and is promoted to program allies and customers via prescriptive or calculated rebates. The target market will be small business and GNI customers with prescriptive equipment that is incentivized under this subprogram. Typical customers include, but are not limited to, office

buildings, grocery stores, health care facilities, retail business, governmental facilities and small manufacturing.

- **Prescriptive – Other:** The Prescriptive – Other subprogram promotes the sale and installation of efficient residential grade appliances and consumer electronics, including office equipment, as well as the removal and recycling of qualifying inefficient, operating appliances by small business and GNI customers. The target market will be customers with residential grade appliances and consumer electronics, including office equipment, that are incentivized under this subprogram. Typical customers include, but are not limited to, small business, retail customers and GNI business administration.
- **Custom:** The Custom subprogram promotes the application of non-prescriptive efficiency measures, including equipment, processes, and building systems and improvements by small business and GNI customers. The target market will generally be customers with more complex needs and non-standard efficiency opportunities and typically include, but not be limited to, office buildings, health care facilities, governmental facilities, and light/medium industrial and manufacturing.
- **Energy Management:** The Energy Management subprogram provides customer engagement and energy efficiency education and provides or targets the installation of energy efficient equipment and efficient building operations and retro-commissioning/commissioning measures. The subprogram targets smaller business customers, including GNI customers, with audits with the installation of program eligible measures tailored to the customer's business type. Typical customers include, but are not limited to, grocery and convenience stores, restaurants, retail businesses located in strip and shopping malls, warehouses, public assembly buildings, educational facilities, light/medium industrial, and GNI customers. The subprogram also provides building operations measures that target existing small businesses and buildings and is particularly relevant for building types within the small business sector that utilize traditional building systems and controls. Retro-commissioning targets existing commercial buildings and is particularly relevant for building types within the sector utilizing a building energy management system.

Program Description

The Energy Solutions for Business Program - Small includes the Multifamily, Prescriptive, Prescriptive-Other, Custom, and Energy Management subprograms and are described as follows:

- **Multifamily:** The Multifamily subprogram provides customer engagement with energy efficiency education through energy assessments and the installation of standard energy savings measures and provides or promotes energy savings opportunities including prescriptive equipment replacement and custom retrofit projects, in both common areas and tenant spaces. In addition, the Multifamily subprogram will target low income/affordable housing properties with enhanced incentives and measures. Customers will begin participation in the Multifamily subprogram with an energy assessment and installation of standard energy

savings measures to help encourage program participation. The assessment will identify and recommend additional energy savings opportunities that are specific to each customer and building and could include incentives for prescriptive equipment replacement or custom retrofit opportunities.

- **Prescriptive and Custom:** The Prescriptive and Custom subprograms will promote the installation of high-efficiency equipment by the Companies' small commercial and industrial customers, including GNI customers, either via the installation of prescriptive or custom measures or projects.

The Prescriptive subprogram provides prescriptive-based incentives to small business customers to purchase and install energy efficient equipment. The subprogram will support and/or provide downstream approaches and may also provide midstream or upstream incentives or buydowns and support to manufacturers, distributors, contractors, and retailers that sell select energy efficient products. Prescriptive incentives will be offered for individual applications and retrofit projects employing standard efficient technologies where the anticipated energy savings are relatively consistent. These measures will incent energy efficient lighting, heating, and cooling equipment, agricultural and food service equipment, among other efficiency measures. Type and value of incentive provided will range and will include electric technologies that improve energy efficiency. Up-front rebates will be offered to reduce first cost barriers. Prescriptive measures are designed to provide easy and cost-effective access to energy efficient measures through customers' preferred channels. Prescriptive rebates are designed to:

- Provide incentives to facility owners and operators for the installation of high efficiency equipment and controls.
- Promote the marketing of high efficiency measures by trade allies such as electrical contractors, mechanical contractors, and their distributors to increase market demand.
- Ensure the participation process is clear and simple.

Prescriptive incentives will increase adoption of energy efficient equipment by harnessing the Companies' unique customer relationships to positively impact the sales process surrounding efficient equipment, from education and awareness with customers to engagement with trade ally contractors and equipment distributors for the high efficiency equipment.

The Custom subprogram includes custom measures that promote electric efficiency opportunities for small commercial and industrial customers, including GNI customers, that are non-standard and not captured by prescriptive equipment. Calculated or performance-based incentives will be provided to customers for upgrading less efficient specialized processes and applications (e.g., variable frequency drives, motors, compressed air, equipment replacement, CHP, industrial process changes, data centers, etc.) to high efficiency specialized processes and applications. This subprogram also provides incentives for customers to install specialized building shell or improvements for new construction or renovation projects. Calculated or performance-based incentives are designed to reduce the customer's capital investment for qualifying energy efficient measures. Typical custom measures that are eligible

for incentives are either less common measures or efficiency opportunities in specialized applications that may include manufacturing or industry-specific processes, or non-traditional use cases. In many cases, custom efficiency projects are more complex than prescriptive equipment replacement.

Potential participants in both the Prescriptive and Custom subprograms are recommended to submit an application for pre-approval to confirm project eligibility and reserve funding. The Companies and/or their CSP will develop electronic rebate application forms that will guide applicants through eligibility guidelines, subprogram requirements, terms and conditions, and general information. In addition, the Companies and/or their CSP will provide applications in web ready formats to ensure participants have easy access to the forms. The pre-approval process provides for the review of the customer's proposed project to confirm measure eligibility and incentive budget availability. This also supports the Companies' subprogram management because it communicates projects that are in the pipeline. If accepted and pre-approved by the Companies, a timeline is established for project completion to qualify for a rebate. The typical lead time for completing a project is 90 to 120 days but can be longer depending on the complexity of the project. Large projects, or subsets of projects, may be required to undergo pre-and post-inspection to validate project energy savings.

- **Prescriptive-Other:** Similar to the Prescriptive subprogram, this subprogram provides prescriptive-based incentives to small commercial and industrial customers, including GNI customers, to purchase and install energy efficient equipment that are residential type appliances that reside within a small commercial and industrial customers facility (e.g., break rooms, small kitchens, etc.) as well as the removal and recycling of qualifying inefficient, operating appliances. These measures include energy efficient appliances, electronics, plug load equipment, and appliance recycling measures. Prescriptive measures are designed to provide easy and cost-effective access to energy efficient measures through customers' preferred channels.

The subprogram will support and/or provide downstream approaches and may also provide midstream or upstream incentives or buydowns and support to manufacturers, distributors, contractors, and retailers that sell select energy efficient products. Type and value of incentive provided will range and will include electric technologies that improve energy efficiency. Up-front rebates will be offered to reduce first cost barriers.

Prescriptive incentives will increase adoption of energy efficient equipment by harnessing the Companies' unique customer relationships to positively impact the sales process surrounding efficient equipment, from education and awareness with customers to engagement with trade ally contractors and equipment distributors for the high efficiency equipment.

The Companies and/or their CSP will develop electronic rebate application forms that will guide applicants through eligibility guidelines, subprogram requirements, terms and

conditions, and general information. In addition, the Companies and/or their CSP will provide applications in web ready formats to ensure participants have easy access to the forms.

- **Energy Management:** The new Energy Management subprogram targets energy savings for existing small commercial and industrial facilities by providing a holistic approach to improving building energy performance through the maintenance, retrofit, tune-up, and retro-commissioning services for existing buildings and through the implementation of energy savings strategies that improve the overall operation and energy performance of buildings and building systems. This subprogram complements the Prescriptive and Custom subprograms, which focus on capital equipment replacement or process improvement investments by improving the energy performance of a building by maintaining, retrofitting, adjusting, and optimizing the systems within the building and the implementation of complementary energy savings measures. The subprogram also provides paths to track the ongoing building energy performance by using retro-commissioning, which ensures continued energy performance. By implementing these measures, customers also receive ancillary benefits, including improved occupant comfort, lower maintenance costs, and extended equipment life.

This subprogram includes measures that focus on specific energy efficiency measures and management practices that can be categorized as follows:

1. **Building Tune-Up:** Provides a path for customers to implement a Building Tune-Up that will focus on the tune-up of central HVAC systems, Mini-Splits and Packaged Terminal units, adjustment and calibration of building systems and controls, diagnostic testing and the installation of other measures that enhance building energy performance and savings. The following Building Tune-Up program measures include, but are not limited to:
 - a. HVAC Tune-Up, including Refrigeration charge correction (if needed), cleaning evaporator and condenser coils, filter changes, verification of proper operation of fans and motors, and minor repairs to refrigerant lines and coils.
 - b. Calibration of building systems and controls, including energy management systems, lighting, and HVAC.
 - c. Diagnostic and function tests of applicable major systems and equipment.
 - d. HVAC controls to optimize Roof Top Units (RTU)/Air Handling Units (AHU).
 - e. Refrigeration controls to optimize refrigeration equipment.
 - f. Lighting upgrades, including application of lighting controls and optimization ~~of installations.~~
 - g. Chiller system controls to optimize chiller performance.
 - h. Other program eligible energy saving measures identified through the building assessment.

- i. Building Operations Training for qualified personnel to obtain Building Operations Certification (BOC) through a certified training program or other training programs as related to the efficient design, operations, and maintenance of buildings.
2. Retro-Commissioning (RCx): Provides a comprehensive assessment of a customer's commercial/industrial building by using a prescribed planning process that includes a building audit, development of an action plan for the building, and development of a Measurement and Verification (M&V) plan to ensure the optimum on-going performance of the building and building systems. A comprehensive assessment of a commercial/industrial building using a prescribed planning and implementation process, including:
 - a. Audit Phase – Customer confirms intent to participate in program and registers with the Company or the third-party implementation contractor. Customer and/or the customer's consultant completes the required level of an American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) audit based on the complexity of the facility and develops a retro-commissioning implementation plan, including project timelines and plan to implement audit identified operation and maintenance measures. There may be opportunities to complete this Phase without a full ASHRAE level audit.
 - b. Setup Phase – Contracted services to implement the plan are verified, long-term monitoring and reporting is developed and initiated, and project plan is implemented by customer.
 - c. Measurement and Verification (M&V) Phase – Savings verification and rebate payment from implementation of the plan are completed.

Typical Retro-Commissioning program measures include, but are not limited to:

- Optimizing chiller and boiler operations to better match building load conditions.
- Reducing ventilation in over-ventilated areas.
- Fixing ventilation dampers that are open when they should be closed or vice versa.
- Decreasing supply air pressure setpoint and system rebalancing.
- Aligning zone temperature setpoints to match the building's actual operating schedule.

As an option to performing an on-site audit to develop a retro-commissioning plan, or as an additional complementary measure, Virtual Commissioning (VCx) provides eligible customers with an analysis of their building's energy performance by using meter usage data, other data, and building modeling to identify and recommend energy efficiency measures and operational changes to improve a building's overall energy performance. The analysis will foster participation in the Companies' other programs by identifying and encouraging customers to implement other energy

efficiency improvements. The VCx process can also utilize benchmarking and peer comparison metrics to help determine energy performance to identify facilities that are underperforming. This offering can also use continuous engagement, monitoring, and periodic reviews of the customer's energy usage to ensure that implemented measures or changes have been successfully completed. The use of building analysis using remote analysis techniques will also help customers to participate in the programs because of limited access to customers' facilities due to concerns and restrictions such as COVID-19.

Implementation Strategy (including expected changes that may occur in different program years)

The Companies will outsource the implementation of this program to CSP(s) who will be responsible to administer, promote, and provide the program to customers, including staffing, promotional strategies, and processes ensuring quality and other controls supporting successful program implementation. The CSP(s) will be responsible for administration, marketing, outreach, fulfilling program services, application processing and documentation regarding purchased products and completed projects, and processing incentives and rebates, where applicable. ~~The Companies~~[The Companies will review the application processes with its Phase IV CSP\(s\) to identify and make improvements, as warranted, and](#) will require the program CSP(s) to consider innovative outreach activities to engage customers, program allies, and trade allies throughout the implementation of the program.

The Companies will perform overall administration and oversight of the program. The Companies plan to issue the RFP(s) for this program in early 2021 and to select the CSP(s) in a timeframe that supports a seamless transition and implementation from the current program beginning June 1, 2021, upon Commission approval of the CSP contract(s) and program.

Program information and links to program applications will be made available at the Companies' program website, www.energysavepa.com. Completed applications to the subprograms will be processed online or be returned via email, where applicable. [For Phase III pre-approved projects that are not completed prior to the conclusion of Phase III, applications will be processed as part of the same Phase IV programs without re-application, consistent with the Companies' review and eligibility requirements.](#) The Companies will consider other methods for providing rebates and other rebate application processes based on market considerations and opportunities that are identified during program implementation.

The Prescriptive, Prescriptive-Other, and Custom subprograms will offer an on-line application portal for customers to submit rebates for energy efficient products or projects and may also develop a midstream approach, work with retailers, contractors, distributors, and/or manufacturers for midstream or upstream incentives or point of purchase buydowns for select measures. The CSP(s)

will develop electronic rebate application forms that will guide applicants through eligibility guidelines, program requirements, terms and conditions, and general information. In addition, the CSP(s) will provide applications in web ready formats to ensure participants have easy access to the forms. Additionally, the CSP(s) will provide support and assistance to retailers or distributors to support identification and promotion of qualifying energy efficient products. The CSP(s) will also provide technical support to customers on the application of the energy efficiency measures and technologies included in these subprograms.

The CSP for the Multifamily subprogram will provide target marketing to both multifamily customers and program allies to ensure awareness of the program and enhance customer participation. The CSP may also contract with qualified auditor(s) to provide the subprogram services to customers, who will conduct marketing and the direct installation and retrofit aspects of this subprogram.

The CSP for the Energy Management subprogram will conduct implementation aspects of this subprogram to customers. Marketing will target specific customer types and program allies to ensure awareness of the program and enhance customer participation. Additional targeted marketing will be completed to promote this subprogram and enhance participation among hard to reach small business customers. The CSP will also conduct the services provided through this subprogram.

Customers can participate in the Multifamily and Energy Management subprograms by application to the subprogram or will be contacted directly by the CSP and/or auditors. The CSP will retrieve customer demographics and obtain customer agreement for the services to be provided and handle on-going customer engagement. Incentives for efficiency measures recommended by the subprograms will be issued after the measures are purchased or completed and required documentation is submitted to the subprogram.

Program issues and risks and risk management strategy

The risks associated with this program include getting enough customers to participate in the program. Well-established and innovative marketing and outreach techniques will be used to promote the participation in this program. The Companies will monitor the program performance and adjust marketing, outreach and/or incentives levels or approaches where applicable to mitigate this risk. Business climate may require customer fees or contributions to be reduced in order to encourage participation. With respect to risk management, refer to Section 4 of the EE&C Plan.

Anticipated key barriers that may pose a risk to this program include:

- **Initial Cost of Efficient Equipment:** Relative to the market baseline, efficient equipment often carries a higher upfront premium but a lower lifetime operating cost. Purchasers often may not fully value the lifetime operating cost advantage of efficient equipment and, as a result, higher upfront cost is a barrier to purchasing efficient equipment. To address this barrier, incentives are provided to the customer to reduce the initial cost through a variety of channels including at midstream and downstream.
- **Customer Awareness and Engagement:** Smaller businesses and GNI customers may have limited resources and time to consider, pursue, or prioritize energy efficiency and may have efficiency needs not well aligned with traditional EE&C programs targeted at larger customers. This program is intended to confront these market barriers by providing turnkey, direct installation of efficiency measures tailored to these eligible customers, while identifying additional efficiency opportunities directly on-site, and through directly soliciting eligible customers for participation. This personalized approach builds trust and achieves results while increasing the likelihood of further participation. In addition to limited resources and time, other small customers may not be aware of the benefits of installing efficient equipment or completing other energy efficiency improvements. To address awareness and educational barriers, the Companies will educate small customers on the program opportunities and the benefits of installing efficient equipment or completing other efficiency improvement through targeted marketing and outreach, providing program services, ensuring that incentives are easily accessible, and encouraging market transformation and stocking of efficient equipment through midstream incentives. The Companies will also focus marketing, education, and outreach efforts on the trade ally community to ensure that trade allies are aware of the program opportunities and available incentives.
- **Business/Operational Constraints:** These facilities often have unique operational constraints that act as a barrier to implement energy-efficiency projects and the maintenance of equipment. This barrier will be addressed by ensuring the subprogram operates cooperatively with participants, provides technical assistance and support, provides maintenance services, and offers timely incentives.
- **Sufficient Stocking and Availability of Efficient Products:** To support a robust marketplace for efficient equipment, the Companies may promote midstream incentives for specific equipment types to encourage participation via incentives for distributors or retailers to stock and promote the purchase of and/or for marking down the cost of the efficient equipment at the point of sale.

The Companies will seek to manage barriers to program success through a commitment to monitoring program performance and feedback channels for assessing effective program design, delivery, outreach, marketing/advertising, and improvement opportunities. The Companies and/or the implementation CSPs will monitor participation and performance to assess, where applicable, the effectiveness of program services, outreach efforts, incentive levels, delivery methods, and feedback from both program and trade allies, so that they can provide suggestions on how to assure that the program is continually providing customers with their needs.

Anticipated costs to participating customers

Customers will have to pay the balance of [the](#) energy efficient product, project and/or installation cost not covered by the rebate. See Appendix B, PUC Table 7 for the incremental cost and incentive range for each measure in this program.

Ramp up strategy

The Companies anticipate a seamless transition and implementation upon Commission approval of the program and CSP contract(s). [To the extent that the Companies change CSPs for Phase IV, the Companies will provide advance notice of such change through both the program website and program allies.](#) For the existing program measures being offered in the new Plan, there will be some ramp-up period needed to transition to the new Plan period with the implementation vendors. For new and expanded program measures, it is anticipated that it will take approximately three- to six-months to start up new or expanded program measures after program approval. See discussion in Section 1.4 for more details on ramp up.

Marketing strategy

The Companies will implement an aggressive, sector-based marketing campaign for the duration of the new Plan. Marketing will be used to target specific customer sectors to ensure awareness of the subprograms and enhance participation.

Marketing activities of the Prescriptive, Custom, and Energy Management subprograms will target eligible customers and program allies to inform them of the program, its components, and the associated benefits through direct mail, website, trade shows, the business customer newsletter, and key account managers. The Companies will also work with distributors and contractors to market eligible higher efficiency equipment than required by federal standards. Additionally, the expanding list of program allies will continue to be cultivated, as they are vital to the growth in customer participation. The Companies regularly communicate with their program allies and participating contractors and provides educational type seminars regarding eligibility, incentives, and other program details to promote and market the program to customers.

The CSP(s) for the Prescriptive, Custom, and Energy Management subprograms will target various market sectors (i.e., education, medical/health care, manufacturing, retail, food service) to enhance participation and promote a cross-section of measures applicable to each market. The Energy Management subprogram will also outreach to building maintenance and operations personnel to promote the subprogram including the Building Tune-Up and Retro-commissioning measures to enhance the energy performance of their facilities.

Since prescriptive retrofits are generally one-for-one replacements, measure-specific collateral

pieces will be developed for new measures or enhanced for continuing measures. These will be delivered to sectors most likely to utilize the specific technology. Fact sheets, mailings, post cards, e-blasts, and on-location seminars will all be used to promote specific measures. Custom marketing efforts require a consistent and directed outreach to program allies, the Companies' managed accounts and government accounts whose processes are compatible with the Custom subprogram requirements. The CSP will be required to develop and implement a diligent marketing plan to identify and target customers to connect them to appropriate measures using e-blasts, webinars, on-site seminars, and large customer newsletters, among other marketing and outreach initiatives. Further, in order to attract multiple measure participation, the CSP will outreach via sectors (e.g., medical facilities for lighting, HVAC, custom processes, and CHP), as well as to program allies such as architects, engineers, and professional associations (e.g., the United States Green Business Council – USGBC). Targeted advertisements in industry/trade publications will also be required to bring awareness to the opportunities and savings available through the Prescriptive, Custom, and Energy Management subprograms. Furthermore, specialized marketing, engagement, and engineering assistance will be utilized to enhance program participation by utilizing CSP personnel to assist with specialized equipment applications, whole building type solutions and studies, and other technical assistance related to energy efficiency opportunities under these subprograms recognizing the increasing complexity of new lighting, HVAC, controls, energy management, and other technologies to foster subprogram participation.

The CSP for the Multifamily subprogram will develop and administer the marketing plan for this subprogram, which will be marketed to non-residential metered multifamily property owners, property managers, and residents, including income-qualified occupants and owners of multifamily buildings. The subprogram will be marketed to customers and program allies through the subprogram website. The subprogram will also use targeted outreach such as direct calls, direct mail, email, or other targeted outreach campaigns. Web-based information and online applications may be utilized. The CSP and auditors will also market and promote other energy savings and program opportunities available to customers through the delivery of this subprogram. The CSP will attempt to follow up with participants to measure satisfaction with the subprogram in general and with delivery personnel. The CSP will also identify customers who did not complete additional retrofit measures to understand the barriers to moving forward with comprehensive projects. The follow-up will be considered on an ongoing basis to improve future marketing strategies and program design.

The CSP for the Prescriptive-Other subprogram will implement both direct and indirect marketing campaigns to promote the Prescriptive-Other subprogram to customers. Small business customers will be exposed to broad-based energy efficiency awareness campaigns, web-based engagement and information, and hard-copy materials to promote awareness, as well as tie-ins with other program opportunities. Retailers, wholesalers, distributors, manufacturers, and trade allies will be contacted directly and/or through trade associations to develop networks and promote involvement in the subprogram where applicable. The subprogram will be marketed, where practical, in conjunction

with the other Energy Solutions for Business program offerings as additional opportunities that are available or as a specific recommendation for energy savings to customers.

Eligible measures and incentive strategy showing incremental cost assumptions, gross measure-level TRC ratio, and incentive levels (e.g., \$ per measure, \$ per kWh or MW saved)

Refer to Appendix B, PUC Table 7 for the eligible measures, eligibility, and incentive strategy for this program.

This program has been designed based on applying established efficient conditions per the PA TRM or other sources, which relies on ENERGYSTAR®, CEE, or other standards and specifications for certain applicable measures. Given the potential of changing standards and specifications for the eligible products under the program during the term of this Phase IV Plan, the Companies may implement tier level or incentive changes for certain applicable measures in conjunction with future specification changes to maintain program continuity and implement timely on-going energy efficiency improvements.

The program will continue to support and/or provide downstream approaches to ensure the market is properly supported. In addition, the Companies may provide midstream or upstream incentives or buydowns and support to manufacturers, distributors, contractors, and retailers that sell select energy efficient products.

The Companies have adopted new Federal Standards and revised eligibility requirements for certain applicable measures.

The basis for proposed level of incentives and the sharing of incremental measure costs between participants and the EDC

The Companies propose to provide a range of incentives depending on the subprogram and measure type, subject to changes within the “Up to” incentive amounts, based upon customer response and market conditions over the Plan period. The Companies strive to balance the sharing of incremental measure costs between the Companies and participants with subprogram performance and progress to goals. The Companies will set and adjust incentives based on many factors, including, but not limited to, their experience, the experience of their affiliates, consultant, or CSPs, stakeholder input, and industry benchmarking. Incentives will vary depending on factors, including, but not limited to, the specific subprogram, end-use and measure, the incremental cost of the high-efficiency technology, and the product maturity in the marketplace.

Maximum deadline for rebates including clear and reasonable rationale for any timeframe longer than 180 days

Applications must be submitted no later than 180 days from the date of project completion, which is defined as all measures being installed and operable. All applications must be submitted via the on-line application portal by May 31, 2026.

Program start date with key schedule milestones

The Companies anticipate a seamless transition and implementation upon Commission approval of the program and CSP contract(s). For the existing program measures being offered in the new Plan, there will be some ramp-up period needed to transition to the new Plan period with the implementation vendors. For new and expanded program measures, it is anticipated that it will take approximately three- to six-months to start-up new or expanded program measures after program approval. See discussion in Section 1.4 and Figure 2 for more details on the program start date with schedule milestones.

Assumed Evaluation, Measurement, and Verification (EM&V) requirements required to document savings by the Commission's statewide EE&C Plan Evaluator

The Companies will retain an Independent EM&V Contractor to perform evaluation, measurement and verification of the program in accordance with the state's Evaluation Framework.

For the pre-installation phase, for a sample of participants, the Companies will verify that inefficient equipment (e.g., HVAC, lighting, food services equipment plug loads and controls) are installed and working on customers' premises. The Companies will also determine current total energy consumption and demand using billing/meter information and will check sample calculations of projected savings and assumptions (e.g., EFLH) for accuracy and for compliance with the PA TRM guidelines. Pre-approval providing the opportunity for pre-installation inspections may be required for certain measures and projects.

For the post-installation phase, the Companies will verify through verification inspections that new, more efficient equipment has been installed and will document, store, and send measure data to the SWE using specified data transmission protocols, processes, and technology.

As part of the monitoring process, the Companies will use selected indicators to verify periodically that energy savings and demand reduction are being realized as projected. A tracking and reporting system will be used for such monitoring. If EE&C program indicators show that projected EE&C targets are not likely to be achieved on schedule and within budget, the Companies will take appropriate corrective actions, which may include adjusting incentives.

Administrative requirements- include internal and external staffing levels

The Companies will use a combination of internal and external resources to manage and implement the EE&C programs. The Companies will monitor and adjust the allocation of resources to balance the needs of each program. See Section 4 of the EE&C Plan for more details.

Savings targets and estimated participation – include tables with estimated total MWH/yr and MW goals per year and/or ranges per year and cumulative tables that document key assumptions of estimated savings ranges per measure as well as estimated participation

See Appendix B, PUC Table 8, Appendix C, Table C-2, and Appendix D, Table D-2.

Estimated program budget (total) by year- include table with budget per year

See Appendix B, PUC Table 9 and Appendix C, Table C-1 for program budget by year.

Estimated percentage of sector budget attributed to program

See Appendix B, PUC Table 4, Appendix B, PUC Table 6, Appendix B, PUC Table 12 and Appendix C, Table C-1 for sector and program level budget results.

Cost-effectiveness- include gross and net TRC and net-to-gross (NTG) ratio for each program

See Appendix B, PUC Table 13 for PA TRC ratios for this program on both a gross and net basis and the net-to-gross ratios assumed for each program. See Appendix B, PUC Table 7 and Appendix D, Table D-2 for the measure life and net-to-gross ratios assumed for each program measure. See Section 8.0 for information regarding the avoided cost calculations and inputs.

Bidding strategy for peak demand reductions into PJM’s FCM. Include a description of the strategy and approach of offering resources into the PJM capacity market. The description should include an estimated range of MW and a trajectory of that MW over time

See Section 1.6 for a description of the Companies’ strategy and approach to offering resources into the PJM capacity market. See Appendix C, Table C-3 for the estimated range of MW over time associated with the Companies’ Phase IV Plan.

Other information deemed appropriate

The Prescriptive subprogram includes streetlighting measures that leverage the Companies' approved streetlight tariffs (including LED streetlights). The incentive provided under this subprogram will be applied to the streetlight project with such payment going to fund removal costs or being treated as a contribution in aid of construction ("CIAC") and, therefore, reducing the capital cost associated with the installation.

All projects that require interconnection to the Companies' systems must receive approval of such interconnection from the applicable Company to be eligible for participation in this program.

CHP projects may be approved as an eligible custom measure project, if found to be cost-effective. Each CHP project must not be above 10 MW in size, must be intended solely for the customer's on-site use (not wholesale merchant projects), must produce retail energy savings to the applicable Company, must be installed and operations during Phase IV, and must comply with the applicable Company's interconnection and standby service rules and requirements.

3.4 Commercial/Industrial Large Sector Programs.

The table below details the comparison of this sector’s programs included in the Existing Plan with those included in the Phase IV Plan, along with a program description:

Table 11: Existing & New Large C/I Programs

Phase III Program	Proposed Phase IV Program	Program Description
Large Commercial & Industrial Programs		
C&I Energy Solutions for Business Program - Large	C&I Energy Solutions for Business Program - Large	The Energy Solutions for Business Program provides financial incentives to large commercial and industrial customers, including government, institutional and multifamily customers, to purchase and install qualifying energy efficiency equipment, recycle inefficient appliances, upgrade less efficient equipment to more efficient end use technology, retrofit specialized equipment and processes, applications and end uses, complete qualifying high efficiency building shell or system improvements. The Program will also promote behavioral savings, adoption of energy saving technologies and efficient building operations through customer education and outreach, audits with direct install measures, building tune-up, energy management strategies, meter data analysis, or retrocommissioning or building operations training to achieve energy savings.
C&I Demand Response Program - Large	N/A	N/A

The table below details each measure that is offered in the programs listed in Table 11 and whether it is an existing or new measure:

Table 12: Large C/I Portfolio

Program	Sub-Program	Measure	Measure Status
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	MF - Tenant - DI - LCI	New
		MF - Tenant - Prescriptive - LCI	New
		MF - Tenant - Custom - LCI	New
		MF - Common - Prescriptive - LCI	New
		MF - Common - Custom - LCI	New
		MF - Common - DI - LCI	New
	Prescriptive - LCI	Air Conditioning - Level 1 <=5.4 Tn - LCI	Existing
		Air Conditioning - Level 1 >5.4 < 20 Tn - LCI	Existing
		Air Conditioning - Level 1 >=20 Tn - LCI	Existing
		Heat Pump - Level 1 <=5.4 Tn - LCI	Existing
		Heat Pump - Water & GeoT - ES Tier 3 - LCI	Existing
		Ductless Mini-Split HP - Level 3 - LCI	Existing
		PTAC - LCI	Existing
		PTHP - LCI	Existing
		Room Air Conditioner- LCI	New
		Smart Thermostat -Rebate - LCI	New
		HVAC - Custom - LCI	New
		Circulating Pump (Mid Strm) - LCI	New
		HVAC - Maintenance - LCI	New
		Fumace Fan (Retrofit or New to ECM) - LCI	New
		Lighting Controls (Daylight & Occupancy) - LCI	Existing
		Linear Fluorescent - LCI	Existing
		LED Linear - LCI	Existing
		LED Channel Signage - LCI	Existing
		Exit Sign - LCI	Existing
		LED Fixture External - LCI	Existing
		LED Fixture Internal - LCI	Existing
		LED Lamp - LCI	Existing
		Lighting - Other - LCI	New
		Street & Area Lighting (Customer Owned) - LCI	Existing
		LED Reach in Refrig / Frzer Light - LCI	New
		Lighting - Custom - LCI	New
		Network Lighting Control - LCI	New
		Linear Lamp - MS - LCI	New
		High/Low Bay Lamp - MS - LCI	New
		LED Fixture - MS - LCI	New

Program	Sub-Program	Measure	Measure Status
C&I Energy Solutions for Business Program - Large	Prescriptive - LCI	ECM Evap Fan Motor - LCI	New
		Evap Fan Controls - LCI	New
		Refrigerator - Reach In - LCI	New
		Freezer - Reach In - LCI	New
		Refrigerated Case Cover - LCI	New
		Anti Sweat Heater Control - LCI	New
		Strip Curtain - LCI	New
		Ice Machine - LCI	New
		Beverage Vending Machine - Controls - LCI	New
		Beverage Vending Machine - Energy Star - LCI	New
		Steam Cooker - LCI	New
		Fryer - LCI	New
		Griddle - LCI	New
		Hot Food Holding Cabinet - LCI	New
		Combination Oven - LCI	New
		Convection Oven - LCI	New
		Dishwasher - LCI	New
		Induction Warmer/Rethermalizer Well - LCI	New
		Coffee Brewer - LCI	New
		Pre-Rinse Sprayer - LCI	New
	Prescriptive Other - LCI	Refrigerator Recycling - LCI	New
		Freezer Recycling - LCI	New
		Room Air Conditioner Recycling - LCI	New
		Dehumidifiers Recycling - LCI	New
		EV Charging Cord - Level 2 - LCI	New
		Clothes Washer Level 1&2 - LCI	New
		Clothes Washer Level 3 - LCI	New
		Clothes Dryer - LCI	New
		Refrigerator Level 1 & 2 - LCI	New
		Refrigerator Level 3 - LCI	New
		Water Heater - Heat Pump - LCI	New
		Freezer - LCI	New
		Dehumidifier - LCI	New
		Water Cooler - LCI	New
		Monitor - LCI	New
		Computer - LCI	New
C&I Energy Solutions for Business Program - Large	Custom - LCI	Custom - Process Improvement - LCI	Existing
		Custom - Compressed Air - LCI	Existing
		Custom - Motors - Three Phase - LCI	Existing
		Custom - Refrigeration - LCI	Existing
		Custom - Equipment/Servers - LCI	Existing
		Custom - HVAC/Chlr/Cntrls - LCI	Existing
		Custom - VFDs < 10HP - LCI	Existing
		Custom - VFDs > 10 HP - LCI	Existing
		Custom - Bldg Improvements - LCI	Existing
		Custom - New Construction - LCI	New
	Custom - Audit & Education - LCI	Existing	
	Energy Management - LCI	Building Tune Up - LCI	Existing
		Virtual/Meter Data Commissioning - LCI	New
		Retrocommissioning - LCI	Existing
		Building Operations Training - LCI	Existing
		Energy Consultation - LCI	New
Audits - LCI		Existing	

Below are the program descriptions for the Commercial/Industrial Large sector included in the Phase IV Plan:

3.4.1 C/I ENERGY SOLUTIONS FOR BUSINESS PROGRAM - LARGE

Program years during which program will be implemented

June 2021 - May 2026

Objective(s)

A primary objective of this program is to promote the installation of energy efficient equipment and to increase the efficiency of processes, buildings, building operations, and systems among large commercial and industrial customers, including GNI customers. The program provides customer engagement with educational and efficiency measures in addition to prescriptive, calculated, or performance-based incentives or midstream or upstream incentives or buydowns and provides support to manufacturers, distributors, contractors, and retailers that sell energy efficient products.

Target Market

The Energy Solutions for Business Program – Large will be available to all large commercial, industrial, and other large non-residential customers, including GNI customers, located within the Companies’ service territories. The program includes the Multifamily, Prescriptive, Prescriptive-Other, Custom, and Energy Management subprograms, which target large business and GNI customers as follows:

- **Multifamily:** The Multifamily subprogram provides customer engagement with energy efficiency education through energy assessments, targets the installation of standard energy savings measures, and promotes energy savings opportunities including prescriptive equipment replacement and custom retrofit projects. This subprogram targets non-residential metered multifamily property owners, property managers, and residents, including income-qualified occupants and owners of multifamily buildings.
- **Prescriptive:** The Prescriptive subprogram promotes the sale and installation of commercial grade efficient equipment across major end-use categories, including lighting, heating and cooling equipment, and food service equipment, among other efficiency measures, and is promoted to program allies and customers via prescriptive or calculated rebates. The target market will be large business and GNI customers with prescriptive equipment that is incentivized under this subprogram. Typical customers include, but are not limited to, office buildings, grocery stores, health care facilities, retail business, governmental facilities, and medium/large manufacturing.
- **Prescriptive – Other:** The Prescriptive – Other subprogram promotes the sale and installation of efficient residential grade appliances, and consumer electronics including office equipment,

as well as the removal and recycling of qualifying inefficient, operating appliances, by large business and GNI customers. The target market will be customers with residential grade appliances and consumer electronics, including office equipment, that are incentivized under this subprogram. Typical customers include, but are not limited to, small business, retail customers and GNI business administration.

- **Custom:** The Custom subprogram promotes the application of non-prescriptive efficiency measures, including equipment, processes and building systems and improvements by large business and GNI customers. The target market will generally be customers with more complex needs and non-standard efficiency opportunities and typically include, but not be limited to, office buildings, health care facilities, governmental facilities, and medium/heavy industrial.
- **Energy Management:** The Energy Management subprogram provides customer engagement and energy efficiency education and provides or targets the installation of energy efficient equipment and efficient building operations and retro-commissioning/commissioning measures. Typical customers include, but are not limited to, larger grocery and retail stores, commercial office buildings, warehouses and distribution centers, educational facilities, medium/heavy industrial, and GNI customers. The subprogram also provides Building Operations measures that target existing large businesses and buildings and is particularly relevant for building types within the sector that utilize traditional building systems and controls. Retro-commissioning targets existing commercial buildings and is particularly relevant for building types within the sector utilizing a building energy management system.

Program description

This program will provide financial support through prescriptive or performance-based incentives to the large commercial and industrial customers, including GNI customers, who implement qualifying high efficiency equipment, retrofit specialized processes and applications to higher efficiency processes and applications, or implement qualifying building tune-up, retro-commissioning, or high efficiency building shell or system improvements. Prescriptive and performance incentives are intended to reduce the customer's capital investment for qualifying high efficiency equipment, processes, and systems. The Energy Solutions for Business Program – Large includes the Multifamily, Prescriptive, Prescriptive-Other, Custom, and Energy Management subprograms, and are described as follows:

- **Multifamily:** The Multifamily subprogram provides customer engagement with energy efficiency education through energy assessments and the installation of standard energy savings measures and provides or promotes energy savings opportunities, including prescriptive equipment replacement and custom retrofit projects, in both common areas and tenant spaces. In addition, the Multifamily subprogram will target low income/affordable housing properties with enhanced incentives and measures. Customers will begin participation in the Multifamily subprogram with an energy assessment and installation of standard energy

savings measures to help encourage program participation. The assessment will identify and recommend additional energy savings opportunities that are specific to each customer and building and could include incentives for prescriptive equipment replacement or custom retrofit opportunities.

- **Prescriptive and Custom:** The Prescriptive and Custom subprograms will promote the installation of high-efficiency equipment by the Companies' large commercial and industrial customers, including GNI customers, either via the installation of prescriptive or custom measures or projects.

The Prescriptive subprogram provides prescriptive-based incentives to large business customers to purchase and install energy efficient equipment. The subprogram will support and/or provide downstream approaches and may also provide midstream or upstream incentives or buydowns and support to manufacturers, distributors, contractors, and retailers that sell select energy efficient products. Prescriptive incentives will be offered for individual applications and retrofit projects employing standard efficient technologies where the anticipated energy savings are relatively consistent. These measures will incent energy efficient lighting, heating and cooling equipment, and food service equipment, among other efficiency measures. Type and value of incentive provided will range and will include electric technologies that improve energy efficiency. Up-front rebates will be offered to reduce first cost barriers. Prescriptive measures are designed to provide easy and cost-effective access to energy efficient measures through customers' preferred channels. Prescriptive rebates are designed to:

- Provide incentives to facility owners and operators for the installation of high efficiency equipment and controls.
- Promote the marketing of high efficiency measures by trade allies, such as electrical contractors, mechanical contractors, and their distributors, to increase market demand.
- Ensure the participation process is clear and simple.

Prescriptive incentives will increase adoption of energy efficient equipment by harnessing the Companies' unique customer relationships to positively impact the sales process surrounding efficient equipment, from education and awareness with customers to engagement with trade ally contractors and equipment distributors for the high efficiency equipment.

The Custom subprogram includes custom measures that promote electric efficiency opportunities for large commercial and industrial customers, including GNI customers, that are non-standard and not captured by prescriptive equipment. Calculated or performance-based incentives will be provided to customers for upgrading less efficient specialized processes and applications (e.g., variable frequency drives, motors, compressed air, equipment replacement, CHP, industrial process changes, data centers, etc.) to high efficiency specialized processes and applications. This subprogram also provides incentives for customers to install specialized building shell or improvements for new construction or renovation projects. Calculated or performance-based incentives are designed to reduce the customer's capital investment for qualifying energy efficient measures. Typical custom measures that are eligible for incentives

are either less common measures or efficiency opportunities in specialized applications that may include manufacturing or industry-specific processes, or non-traditional use cases. In many cases, custom efficiency projects are more complex than prescriptive equipment replacement.

Potential participants in both the Prescriptive and Custom subprograms are recommended to submit an application for pre-approval to confirm project eligibility and reserve funding. The Companies and/or their CSP will develop electronic rebate application forms that will guide applicants through eligibility guidelines, subprogram requirements, terms and conditions, and general information. In addition, the Companies and/or their CSP will provide applications in web ready formats to ensure participants have easy access to the forms. The pre-approval process provides for the review of the customer's proposed project to confirm measure eligibility and incentive budget availability. This also supports the Companies' subprogram management because it communicates projects that are in the pipeline. If accepted and pre-approved by the Companies, a timeline is established for project completion to qualify for a rebate. The typical lead time for completing a project is 90 to 120 days but can be longer depending on the complexity of the project. Large projects, or subsets of projects, may be required to undergo pre-and post-inspection to validate project energy savings.

- **Prescriptive-Other:** Similar to the Prescriptive subprogram, this subprogram provides prescriptive-based incentives to large commercial and industrial customers, including GNI customers, to purchase and install energy efficient equipment that are residential type appliances that reside within a large commercial and industrial customer's facility (e.g., break rooms, small kitchens, etc.) as well as the removal and recycling of qualifying inefficient, operating appliances. These measures include energy efficient appliances, electronics, plug load equipment, and appliance recycling measures. Prescriptive measures are designed to provide easy and cost-effective access to energy efficient measures through customers' preferred channels.

The subprogram will support and/or provide downstream approaches and may also provide midstream or upstream incentives or buydowns and support to manufacturers, distributors, contractors, and retailers that sell select energy efficient products. Type and value of incentive provided will range and will include electric technologies that improve energy efficiency. Up-front rebates will be offered to reduce first cost barriers.

Prescriptive incentives will increase adoption of energy efficient equipment by harnessing the Companies' unique customer relationships to positively impact the sales process surrounding efficient equipment, from education and awareness with customers to engagement with trade ally contractors and equipment distributors for the high efficiency equipment.

The Companies and/or their CSP will develop electronic rebate application forms that will guide applicants through eligibility guidelines, subprogram requirements, terms and

conditions, and general information. In addition, the Companies and/or their CSP will provide applications in web ready formats to ensure participants have easy access to the forms.

- **Energy Management:** The new Energy Management subprogram targets energy savings for existing large commercial and industrial facilities by providing a holistic approach to improving building energy performance through the maintenance, retrofit, tune-up, and retro-commissioning services for existing buildings and through the implementation of energy savings strategies that improve the overall operation and energy performance of buildings and building systems. This subprogram complements the Prescriptive and Custom subprograms, which focus on capital equipment replacement or process improvement investments by improving the energy performance of a building by retrofitting, maintaining, adjusting, and optimizing the systems within the building and the implementation of complementary energy savings measures. The subprogram also provides paths to track the ongoing building energy performance by using retro-commissioning which ensures continued energy performance. By implementing these measures, customers also receive ancillary benefits, including improved occupant comfort, lower maintenance costs, and extended equipment life.

This subprogram includes measures that focus on specific energy efficiency measures and management practices that can be categorized as follows:

1. **Building Tune-Up:** Provides a path for customers to implement a Building Tune-Up that will focus on the tune-up of central HVAC systems, Mini-Splits, and Packaged Terminal units retrofit, the adjustment and calibration of building systems and controls, diagnostic testing, and the installation of other measures that enhance building energy performance and savings. Also includes application of controls to optimize operation of building systems, and includes the following measures:
 - a. HVAC Tune-Up, including Refrigeration charge correction (if needed), cleaning evaporator and condenser coils, filter changes, verification of proper operation of fans and motors, and minor repairs to refrigerant lines and coils.
 - b. Calibration of building systems and controls, including energy management systems, lighting, and HVAC.
 - c. Diagnostic and function tests of applicable major systems and equipment.
 - d. HVAC controls to optimize Roof Top Units (RTU)/Air Handling Units (AHU).
 - e. Refrigeration controls to optimize refrigeration equipment.
 - f. Lighting upgrades, including application of lighting controls and optimization.
 - g. Chiller system controls to optimize chiller performance.
 - h. Other program eligible energy saving measures identified through the building assessment.

- i. Building Operations Training for qualified personnel to obtain Building Operations Certification (BOC) through a certified training program or other training programs as related to the efficient design, operations, and maintenance of buildings.
2. Retro-Commissioning (RCx): Provides a comprehensive assessment of a customer's commercial/industrial building by using a prescribed planning process that includes a building audit, development of an action plan for the building, and development of a Measurement and Verification (M&V) plan to ensure the optimum on-going performance of the building and building systems. A comprehensive assessment of a commercial/industrial building using a prescribed planning and implementation process, including:
- a. Audit Phase – Customer confirms intent to participate in program and registers with the Company or the third-party implementation contractor. Customer and/or the customer's consultant completes the required level of an American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) audit based on the complexity of the facility and develops a retro-commissioning implementation plan, including project timelines and plan to implement audit identified operation and maintenance measures. There may be opportunities to complete this Phase without a full ASHRAE level audit.
 - b. Setup Phase – Contracted services to implement the plan are verified, long-term monitoring and reporting is developed and initiated, and project plan is implemented by customer.
 - c. Measurement and Verification (M&V) Phase – Savings verification and rebate payment from implementation of the plan are completed.

Typical Retro-Commissioning measures include, but are not limited to:

- Optimizing chiller and boiler operations to better match building load conditions.
- Reducing ventilation in over-ventilated areas.
- Fixing ventilation dampers that are open when they should be closed or vice versa.
- Decreasing supply air pressure setpoint and system rebalancing.
- Aligning zone temperature setpoints to match the building's actual operating schedule.

As an option to performing an on-site audit to develop a retro-commissioning plan, or as an additional complementary measure, Virtual Commissioning (VCx) provides eligible customers with an analysis of their building's energy performance by using meter usage data, other data, and building modeling to identify and recommend energy efficiency measures and operational changes to improve a building's overall energy performance. The analysis will foster participation in the Companies' other programs by identifying and encouraging customers to implement other energy

efficiency improvements. The VCx process can also utilize benchmarking and peer comparison metrics to help determine energy performance to identify facilities that are underperforming. This offering can also use continuous engagement, monitoring, and periodic reviews of the customer's energy usage to ensure that implemented measures or changes have been successfully completed. The use of building analysis using remote analysis techniques will also help customers to participate in the programs because of limited access to customers' facilities due to concerns and restrictions such as COVID-19.

Implementation strategy (including expected changes that may occur in different program years)

The Companies will outsource the implementation of this program to CSP(s) who will be responsible to administer, promote, and provide the program to customers, including staffing, promotional strategies, and processes ensuring quality and other controls supporting successful program implementation. The CSP(s) will be responsible for administration, marketing, outreach, fulfilling program services, application processing, and documentation regarding purchased products and completed projects, and processing incentives and rebates, where applicable. ~~The Companies~~The Companies will review the application processes with its Phase IV CSP(s) to identify and make improvements, as warranted, and will require the program CSP(s) to consider innovative outreach activities to engage customers, program allies, and trade allies throughout the implementation of the program.

The Companies will perform overall administration and oversight of the program. The Companies plan to issue the RFP(s) for this program in early 2021 and to select the CSP(s) in a timeframe that supports a seamless transition and implementation from the current program beginning June 1, 2021, upon Commission approval of the CSP contract(s) and program.

Program information and links to program applications will be made available at the Companies' program website, www.energysavepa.com. Completed applications to the subprograms will be processed online or be returned via email, where applicable. For Phase III pre-approved projects that are not completed prior to the conclusion of Phase III, applications will be processed as part of the same Phase IV programs without re-application, consistent with the Companies' review and eligibility requirements. The Companies will consider other methods for providing rebates and other rebate application processes based on market considerations and opportunities that are identified during program implementation.

The Prescriptive, Prescriptive-Other, and Custom subprograms will offer an on-line application portal for customers to submit rebates for energy efficient products or projects and may also develop a midstream approach, work with retailers, contractors, distributors and/or manufacturers for midstream or upstream incentives or point of purchase buydowns for select measures. The CSP(s)

will develop electronic rebate application forms that will guide applicants through eligibility guidelines, program requirements, terms and conditions, and general information. In addition, the CSP(s) will provide applications in web ready formats to ensure participants have easy access to the forms. Additionally, the CSP(s) will provide support and assistance to retailers or distributors to support identification and promotion of qualifying energy efficient products. The CSP(s) will also provide technical support to customers on the application of the energy efficiency measures and technologies included in these subprograms.

The CSP for the Multifamily subprogram will provide targeted marketing to both multifamily customers and program allies to ensure awareness of the program and enhance customer participation. The CSP may also contract with qualified auditor(s) to provide the subprogram services to customers, who will conduct marketing and the direct installation and retrofit aspects of this subprogram.

The CSP for the Energy Management subprogram will conduct implementation aspects of this subprogram to customers. Marketing will target specific customer types and program allies to ensure awareness of the program and enhance customer participation. Additional targeted marketing will be completed to promote this subprogram and enhance participation among hard to reach large business customers. The CSP will also conduct the services provided through this subprogram.

Customers can participate in the Multifamily and Energy Management subprograms by application to the subprogram or will be contacted directly by the CSP(s) and/or auditors. The CSP(s) will retrieve customer demographics and obtain customer agreement for the services to be provided and handle on-going customer engagement. Incentives for efficiency measures recommended by the subprograms will be issued after the measures are purchased or completed and required documentation is submitted to the subprogram.

Program issues and risks and risk management strategy

The risks associated with this program include getting enough customers to participate in the program. Well-established and innovative marketing and outreach techniques will be used to promote the participation in this program. The Companies will monitor the program performance and adjust marketing, outreach, and/or incentives levels or approaches where applicable to mitigate this risk. Business climate may require customer fees or contributions to be reduced in order to encourage participation. With respect to risk management, refer to Section 4 of the EE&C Plan.

Anticipated key barriers that may pose a risk to this program include:

- **Initial Cost of Efficient Equipment:** Relative to the market baseline, efficient equipment often carries a higher upfront premium but a lower lifetime operating cost. Purchasers often may not fully value the lifetime operating cost advantage of efficient equipment and, as a result, higher upfront cost is a barrier to purchasing efficient equipment. To address this barrier, incentives are provided to the customer to reduce the initial cost through a variety of channels, including at midstream and downstream.
- **Customer Awareness and Engagement:** Businesses and GNI customers may have limited resources and time to consider, pursue, or prioritize energy efficiency and may have efficiency needs not well aligned with traditional EE&C programs targeted at larger customers. In addition to limited resources and time, other customers may not be aware of the benefits of installing efficient equipment or completing other energy efficiency improvements. To address awareness and educational barriers, the Companies will educate customers on the program opportunities and the benefits of installing efficient equipment or completing other efficiency improvement through targeted marketing and outreach, providing program services, ensuring that incentives are easily accessible, and encouraging market transformation and stocking of efficient equipment through midstream incentives. The Companies will also focus marketing, education, and outreach efforts on the trade ally community to ensure that trade allies are aware of the program opportunities and available incentives.
- **Business/Operational Constraints:** These facilities often have unique operational constraints that act as a barrier to implement energy-efficiency projects and the maintenance of equipment. This barrier will be addressed by ensuring the subprogram operates cooperatively with participants, provides technical assistance and support, provides maintenance services, and offers timely incentives.
- **Sufficient Stocking and Availability of Efficient Products:** To support a robust marketplace for efficient equipment, the Companies may promote midstream incentives for specific equipment types to encourage participation via incentives for distributors or retailers to stock and promote the purchase of and/or for marking down the cost of the efficient equipment at the point of sale.

The Companies will seek to manage barriers to program success through a commitment to monitoring program performance and feedback channels for assessing effective program design, delivery, outreach, marketing/advertising, and improvement opportunities. The Companies and/or the implementation CSPs will monitor participation and performance to assess, where applicable, the effectiveness of program services, outreach efforts, incentive levels, delivery methods, and feedback from both program and trade allies, so that they can provide suggestions on how to assure that the program is continually providing customers with their needs.

Anticipated costs to participating customers

Customers will have to pay the balance of [the](#) energy efficient product, project and/or installation [costs](#) not covered by the rebate. See Appendix B, PUC Table 7 for the incremental cost and incentive range for each measure in this program.

Ramp up strategy

The Companies anticipate a seamless transition and implementation upon Commission approval of the program and CSP contract(s). [To the extent that the Companies change CSPs for Phase IV, the Companies will provide advance notice of such change through both the program website and program allies.](#) For the existing program measures being offered in the new Plan, there will be some ramp-up period needed to transition to the new Plan period with the implementation vendors. For new and expanded program measures, it is anticipated that it will take approximately three- to six-months to start up new or expanded program measures after program approval. See discussion in Section 1.4 for more details on ramp up.

Marketing strategy

The Companies will implement an aggressive, sector-based marketing campaign for the duration of the new Plan. Marketing will be used to target specific customer sectors to ensure awareness of the subprograms and enhance participation.

Marketing activities of the Prescriptive, Custom, and Energy Management subprograms will target eligible customers and program allies to inform them of the program, its components, and the associated benefits through direct mail, website, trade shows, the business customer newsletter, and key account managers. The Companies will also work with distributors and contractors to market eligible higher efficiency equipment than required by federal standards. Additionally, the expanding list of program allies will continue to be cultivated, as they are vital to the growth in customer participation. The Companies regularly communicate with their program allies and participating contractors and provides educational type seminars regarding eligibility, incentives, and other program details to promote and market the program to customers.

The CSPs for the Prescriptive, Custom and Energy Management subprograms will target various market sectors (i.e., education, medical/health care, manufacturing, retail, food service) to enhance participation and promote a cross-section of measures applicable to each market. The Energy Management subprogram will also outreach to building maintenance and operations personnel to promote the subprogram including the Building Operations and Retro-commissioning measures to enhance the energy performance of their facilities.

Since prescriptive retrofits are generally one-for-one replacements, measure-specific collateral pieces will be developed for new measures or enhanced for continuing measures. These will be delivered to sectors most likely to utilize the specific technology. Fact sheets, mailings, post cards, e-blasts, and on-location seminars will all be used to promote specific measures. Custom marketing efforts require a consistent and directed outreach to program allies, the Companies' managed

accounts and government accounts whose processes are compatible with the Custom subprogram's requirements. The CSP will be required to develop and implement a diligent marketing plan to identify and target customers to connect them to appropriate measures using e-blasts, webinars, on-site seminars, and large customer newsletters, among other marketing and outreach initiatives. Further, in order to attract multiple measure participation, the CSP will conduct outreach via sectors (e.g., medical facilities for lighting, HVAC, custom processes, and CHP) and to program allies, such as architects, engineers and professional associations (e.g., the United States Green Business Council – USGBC). Targeted advertisements in industry/trade publications will also be required to bring awareness to the opportunities and savings available through the Prescriptive, Custom, and Energy Management subprograms. Furthermore, specialized marketing, engagement, and engineering assistance will be utilized to enhance program participation by utilizing CSP personnel to assist with specialized equipment applications, whole building type solutions and studies, and other technical assistance related to energy efficiency opportunities under these subprograms recognizing the increasing complexity of new lighting, HVAC, controls, energy management and other technologies to foster subprogram participation.

The CSP for the Multifamily subprogram will develop and administer the marketing plan for this subprogram, which will be marketed to non-residential metered multifamily property owners, property managers, and residents, including income-qualified occupants and owners of multifamily buildings. The subprogram will be marketed to customers and program allies through the subprogram website. The subprogram will also use targeted outreach, such as direct calls, direct mail, email, or other targeted outreach campaigns. Web-based information and online applications may be utilized. In addition, each participant will be given marketing materials for other applicable program offerings at the time of the audit.

The CSPs will attempt to follow up with participants, to measure satisfaction with the subprogram in general and with delivery personnel. The CSPs will also identify customers who did not complete additional retrofit measures to understand the barriers to moving forward with comprehensive projects. The follow-up will be considered on an ongoing basis to improve future marketing strategies and program design.

The CSP for the Prescriptive-Other subprogram will implement both direct and indirect marketing campaigns to promote the Prescriptive-Other subprogram to customers. Large business customers will be exposed to broad-based energy efficiency awareness campaigns, web-based engagement and information, and hard-copy materials to promote awareness, as well as tie-ins with other program opportunities. Retailers, wholesalers, distributors, manufacturers, and trade allies will be contacted directly and/or through trade associations to develop networks and promote involvement in the subprogram where applicable. The subprogram will be marketed, where practical, in conjunction with the other Energy Solutions for Business program offerings as additional opportunities that are available or as a specific recommendation for energy savings to customers.

Eligible measures and incentive strategy showing incremental cost assumptions, gross measure-level TRC ratio, and incentive levels (e.g., \$ per measure, \$ per kWh or MW saved)

Refer to Appendix B, PUC Table 7 for the eligible measures, eligibility, and incentive strategy for this program.

This program has been designed based on applying established efficient conditions per the PA TRM or other sources, which relies on ENERGYSTAR®, CEE, or other standards and specifications for certain applicable measures. Given the potential of changing standards and specifications for the eligible products under the program during the term of this Phase IV Plan, the Companies may implement tier level or incentive changes for certain applicable measures in conjunction with future specification changes to maintain program continuity and implement timely on-going energy efficiency improvements.

The program will continue to support and/or provide downstream approaches to ensure the market is properly supported. In addition, the Companies may provide midstream or upstream incentives or buydowns and support to manufacturers, distributors, contractors, and retailers that sell select energy efficient products.

The Companies have adopted new Federal Standards and revised eligibility requirements for certain applicable measures.

The basis for proposed level of incentives and the sharing of incremental measure costs between participants and the EDC

The Companies propose to provide a range of incentives depending on the subprogram and measure type, subject to changes within the “Up to” incentive amounts, based upon customer response and market conditions over the Plan period. The Companies strive to balance the sharing of incremental measure costs between the Companies and participants with subprogram performance and progress to goals. The Companies will set and adjust incentives based on many factors, including, but not limited to, their experience, the experience of their affiliates, consultant, or CSPs, stakeholder input, and industry benchmarking. Incentives will vary depending on factors, including, but not limited to, the specific subprogram, end-use and measure, the incremental cost of the high-efficiency technology, and the product maturity in the marketplace.

Maximum deadline for rebates including clear and reasonable rationale for any timeframe longer than 180 days

Applications must be submitted no later than 180 days from the date of project completion, which is defined as all measures being installed and operable. All applications must be submitted via the on-line application portal by May 31, 2026.

Program start date with key schedule milestones

The Companies anticipate a seamless transition and implementation upon Commission approval of the program and CSP contract(s). For the existing program measures being offered in the new Plan, there will be some ramp-up period needed to transition to the new Plan period with the implementation vendors. For new and expanded program measures, it is anticipated that it will take approximately three- to six-months to start-up new or expanded program measures after program approval. See discussion in Section 1.4 and Figure 2 for more details on the program start date with schedule milestones.

Assumed Evaluation, Measurement, and Verification (EM&V) requirements required to document savings by the Commission's statewide EE&C Plan Evaluator

The Companies will retain an Independent EM&V Contractor to perform evaluation, measurement, and verification of the program in accordance with the state's Evaluation Framework.

For the pre-installation phase, for a sample of participants, the Companies will verify that inefficient equipment (e.g., HVAC, lighting, food services equipment and plug loads and controls) are installed and working on customers' premises. The Companies will also determine current total energy consumption and demand using billing/meter information and will check sample calculations of projected savings and assumptions (e.g., EFLH) for accuracy and for compliance with the PA TRM guidelines.

For the post-installation phase, the Companies will verify through verification inspections that new, more efficient equipment has been installed. They will document, store, and provide measure data to the SWE using specified data transmission protocols, processes, and technology.

As part of the monitoring process, the Companies will use selected indicators to verify periodically that energy savings and demand reduction are being realized as projected. A tracking and reporting system will be used for such monitoring. If EE&C program indicators show that projected EE&C targets are not likely to be achieved on schedule and within budget, the Companies will take appropriate corrective actions, which may include adjustments to incentives.

Administrative requirements- include internal and external staffing levels

The Companies will use a combination of internal and external resources to manage and implement the EE&C programs. The Companies will monitor and adjust the allocation of resources to balance the needs of each program. See Section 4 of the EE&C Plan for more details.

Savings targets and estimated participation – include tables with estimated total MWH/yr and MW goals per year and/or ranges per year and cumulative tables that document key assumptions of estimated savings ranges per measure as well as estimated participation

See Appendix B, PUC Table 8, Appendix C, Table C-2, and Appendix D, Table D-2.

Estimated program budget (total) by year- include table with budget per year

See Appendix B, PUC Table 9 and Appendix C, Table C-1 for program budget by year.

Estimated percentage of sector budget attributed to program

See Appendix B, PUC Table 4, Appendix B, PUC Table 6, Appendix B, PUC Table 12 and Appendix C, Table C-1 for sector and program level budget results.

Cost-effectiveness- include gross and net TRC and net-to-gross (NTG) ratio for each program

See Appendix B, PUC Table 13 for PA TRC ratios for this program on both a gross and net basis and the net-to-gross ratios assumed for each program. See Appendix B, PUC Table 7 and Appendix D, Table D-2 for the measure life and net-to-gross ratios assumed for each program measure. See Section 8.0 for information regarding the avoided cost calculations and inputs.

Bidding strategy for peak demand reductions into PJM’s FCM. Include a description of the strategy and approach of offering resources into the PJM capacity market. The description should include an estimated range of MW and a trajectory of that MW over time

See Section 1.6 for a description of the Companies’ strategy and approach to offering resources into the PJM capacity market. See Appendix C, Table C-3 for the estimated range of MW over time associated with the Companies’ Phase IV Plan.

Other information deemed appropriate

All projects that require interconnection to the Companies’ systems must receive approval of such interconnection from the applicable Company to be eligible for participation in this program.

CHP projects may be approved as an eligible custom measure project, if found to be cost-effective. Each CHP project must not be above 10 MW in size, must be intended solely for the customer on-site use (not wholesale merchant projects), must produce retail energy savings to the applicable

Company, must be installed and operational during Phase IV, and must comply with the applicable Company's interconnection and standby service rules and requirements.

3.5 Government/Nonprofit/Institutional Sector (as defined by 66 Pa. C.S. § 2806.1) – Qualitatively describe how the Government/Nonprofit/Institutional Sector will be served

The Phase IV Plan also continues to target and provide program services for governmental, non-profit and institutional (“GNI”) customers through the Energy Solutions for Business programs. The Energy Solutions for Business, Small and Large programs include subprograms and measures aimed at serving GNI customers, including direct install, single and multiple prescriptive measures, custom projects, and Energy Management services. As in Phase III, special efforts will be made to target the GNI customers for participation in these programs in recognition of their unique decision making and financing processes for making capital improvements to facilities. Marketing and outreach will specifically target GNI entities within the Companies’ service territories depending upon the subprogram offering. These efforts will include the leveraging of existing Companies’ relationships and employing experienced vendors who have expertise in working with GNI accounts.

4. Program Management and Implementation Strategies

4.1 Overview of EDC Management and Implementation Strategies:

4.1.1 Describe the types of services to be provided by EDC as well as consultants, program allies, and CSPs. Indicate which organizations will provide which services and the basis for such allocation. Reference reporting and EM&V information from Sections 5 and 6 below.

The Companies will provide administration and oversight of this Phase IV Plan and will utilize third-party vendors to perform various program implementation, delivery, and support activities as described in Section 3. Specific activities that the Companies will oversee include: (i) Plan development; (ii) the execution of marketing campaigns; (iii) quality assurance/quality control activities; (iv) Plan and program performance; and (v) tracking and reporting activities. The Companies will utilize third-party vendors to provide many program implementation services, including managing program operations as well as marketing, customer enrollment, program and trade alley engagement, application and rebate processing, EM&V, and implementation of the tracking and reporting system. The following are examples of third-party vendors that the Companies anticipate using for program implementation services, either directly or indirectly:

- Qualified vendor(s) that are registered in Pennsylvania as a Conservation Service Provider.
- Equipment distributors, retailers and/or manufacturers who would promote the eligible products.
- Online audit vendor.
- Energy efficiency kit vendor.
- Environmentally responsible appliance recycler.
- Qualified contractors, auditors and inspectors.
- Program allies who have attended training.

4.1.2 Describe how the risk categories of performance, technology, market and evaluation can affect the programs and any risk management strategies that will be employed to mitigate those risks.

There are various risks associated with the implementation of this Phase IV Plan, the more significant of which are described below:

1. Performance Risk is the risk that, due to design or implementation assumptions, the program does not deliver expected savings.

While modeling assumptions yielded results that support program success within budget, the Companies note the conditions under which these programs will be implemented during the Phase IV Period may change. Below is a list of some of the more material risks the Companies will face:

- Changing economic conditions over the life of the Plan causes concern that customers may not support the pace of investment estimated and may slow the pace of mass market penetration. As an example, the full implications and current uncertainty surrounding the COVID-19 pandemic and residual effects both on the Phase III Plan and into the Phase IV Plan are unclear and will not be fully understood for a long time, including the ability or interest of customer participation in the programs.
- Newly introduced programs and measures included in this Plan will not have a historical basis for participation rates or experience. As a result, participation and installation rates may be lower than estimated, particularly in the early years.
- There is uncertainty around the savings estimates associated with the PA TRM over the life of the Plan, including inputs to the savings protocols and changing standards, which may pose a risk to the Companies' compliance both as to targets and cost effectiveness.
- Targeted participation rates and energy/demand savings may not be achieved due to a variety of factors, such as changing technology, market trends, or incentives that are not high enough to encourage desired energy efficiency investment. The ability to make mid-stream adjustments on a timely basis to program measures or incentives is of paramount importance for the Companies to meet their targets and allows the Companies to proactively address rapidly evolving technology and market trends.

The Companies have taken steps to identify and manage risks as well as to prepare for contingencies that may be necessary during the Phase IV Period. Those steps are as follows:

- The Companies will continue open discussion with stakeholders, seeking input from them as circumstances dictate.
- The Companies will continue to consult with their CSPs to modify program implementation strategies and suggest program changes as indicated by participation and savings results.
- The Companies will continue to perform EM&V of their programs in order to ensure that all programs are reasonable in terms of dollars spent, participation rates achieved, and kWh and kW savings realized.
- The Companies will continue their participation in any proceedings, rulemakings, and working groups involving issues that may affect compliance, including, as examples, those related to the PA TRM and adjustments thereto, and unforeseen changes in the economy and/or Federal and state laws that may occur during the five year Phase IV Period.

- The Companies have developed their incentive strategy in a way that allows timely response to market trends. By employing incentive ranges as opposed to fixed amounts, the Companies have the ability to timely adjust incentive levels within the approved range to maximize program participation with appropriate incentive levels.
- The Companies will continue to address issues and remain committed to resolve: (i) important programmatic change requirements; (ii) potential additions that are found to be necessary and/or desirable as the Companies collect and assess key program performance metrics over the course of each program's deployment and operation; and (iii) unforeseen events that may arise over the next several years.
- The Companies will utilize the expedited review process implemented by the Commission for any necessary minor Plan changes.

Given the significant investment required to meet the energy and demand savings goals, the Companies believe that it is both prudent and necessary to have a robust evaluation process in place from the date of each program's inception, as well as the financial capability to make those changes that are either indicated by the program process evaluations and/or general economic or market conditions as they change over time.

2. Technology Risk is the risk that program technologies fail to deliver the savings expected.

This Plan incorporates virtually all of the programs included in the Phase III Plan. Therefore, this risk is minimized because of the known historic results for the majority of the technologies and the market potential for future savings through these programs. However, this risk is heightened for those new or existing measures that have been modified since being implemented under the Phase III Plan. The Companies have attempted to manage this risk by relying on their expert consultant, their experience with similar measures used by their sister utilities in other jurisdictions, and industry research. Further, this Plan incorporates a comprehensive suite of programs that will have an immediate impact on energy use and, in the long run, should help transform the market into one where customers seek energy efficient options on a regular basis. As with the Performance Risk, the Companies will continue to participate in any proceedings, rulemakings, and working groups that address issues that may have an impact on compliance with the Phase IV EE&C targets.

3. Market Risk is the risk that customers, or other key market players, such as retailer contractors, are not aware of available programs, choose not to participate in a program, or cannot afford investments in energy efficiency measures that support achievement of targets.

Market risk will be assessed through program tracking and periodic surveys to gauge awareness of the programs and, for those not participating, barriers to participation. Market risk will also be assessed through periodic process evaluations. This will enable the Companies to identify issues related to market risk and implement mid-course corrections to enable the programs to stay on track. The Companies' use of flexible

incentive ranges, rather than fixed incentives, is a valuable tool that allows for such corrections in a timely manner. The Companies will continue to evaluate various approaches to building and enhancing awareness through communications in order to minimize market risk. The Companies' plan to further raise customers' awareness of the benefits of energy efficiency and conservation, as well as the availability of their programs offered through this Plan, through wide-reaching educational campaigns and targeted outreach. In addition, the Companies intends to utilize the relationships they have with interested parties through the stakeholder process, as well as contacts within various target markets, providing the latter with educational tools as well. Further, each program implementation vendor will also support and supplement such efforts with program specific marketing activities.

4. Evaluation Risk is the risk that independent EM&V will, based on different measurement methodologies and assumptions, result in different levels of savings than those estimated in this Plan. The Companies minimize this risk through their ongoing work with their EM&V consultant, insights gained through other companies' experiences in other jurisdictions, and by utilizing the PA TRM and other industry guidelines to estimate program savings. The Companies and their EM&V consultant will also work with the SWE in an effort to perform EM&V activities consistent with Commission direction in a sufficiently robust manner so as to reliably capture all applicable program-related savings.
5. Regulatory Risk is the risk that the rules governing compliance, recognition of savings estimates, reporting, or management of program budgets may change in a manner that will impair the Companies' ability to meet the requirements set forth in the Phase IV Implementation Order. The Companies will minimize this risk through active participation in regulatory proceedings, rulemakings, and working groups, through their ongoing work with Commission Staff, the SWE, and their EM&V consultant, and by following regulatory guidance. The Companies also will notify the Commission if they believe changes to their targets are necessary.

4.1.3 Describe how EDC plans to address human resource and contractor resource constraints to ensure that adequate personnel and contractors are available to implement the EE&C plan successfully.

The Companies did not experience a shortage of resources during Phase I, Phase II, or Phase III and do not anticipate a significant problem in obtaining the necessary resources during Phase IV. Nevertheless, the Companies intend to use both in-house personnel and contractors to successfully implement this Plan.

This Plan also incorporates virtually all of the programs included in the Phase III Plan. The Companies' experience with these programs supports the availability of contractors to successfully implement this Phase IV Plan. For those new or existing measures that have been modified since being implemented under the Phase III Plan, the Companies have carefully developed implementation projections based on input from their expert consultant, implementation team, experience with similar measures used by sister utilities in other

jurisdictions, and industry research to ensure that there will be a sufficient number of adequately qualified contractors to implement the programs to reach the kWh and kW savings goals.

4.1.4 Describe “early warning systems” that will be utilized to indicate progress towards the goals and whether they are likely to be met. Describe EDC’s approach and process for shifting goals and funds, as needed, between programs and adding new measures/programs.

On a monthly basis, the Companies leverage tracking and reporting processes to closely monitor the progress of each program toward its goals individually and for the portfolio collectively, identifying performance issues, gaps, and opportunities for improvement. Review meetings are performed at least monthly. Evaluation activities will also inform how well the programs are moving toward the achievement of goals and provide additional basis upon which any recommendations for adjustments to programs are made. The vast majority of this evaluation work will be done by the expert EM&V consultant hired by the Companies.

Below is a description of the Companies’ contingency plans should any of the following issues arise:

What if the savings do not materialize? If it is found that one or more programs are not meeting expectations, the Companies will take one or more of the following actions:

1. Shift the focus of underperforming programs to measures or programs that have a higher adoption rate. The Companies’ Phase IV Plan utilizes over 150 measures that are rolled up into programs. This large number of measures incorporated into the programs allows flexibility to shift emphasis to leverage successful measures as needed to achieve program energy savings goals.
2. Shift the focus or expand program measures to include promising emerging technology that may not have been well known, tested, accepted by the market, or produced in sufficient quantities at the time this Plan was designed and submitted for approval. The Companies will continue to monitor technologies reviewed but not incorporated into this Plan for potential inclusion throughout the duration of the Plan.
3. Adjust the program delivery processes utilized in order to enhance market penetration. Options here may include: (i) having vendors add field staff to handle more inquiries or shorten response times; (ii) eliminating or adjusting project requirements if bottlenecks appear to be stalling progress; or (iii) implementing other adjustments as dictated by process evaluations.
4. Investigate issues that customers have with programs and, if deemed appropriate, modify delivery based upon the results.
5. Shift program delivery to more aggressively promote measures.

6. In extreme cases, abandon non-performing programs or measures and replace them with other programs or measures that show the potential for greater success.
7. Shift resources to higher performing programs. This Plan assumes customer participation based on current experience of the Companies and their consultant, which, in turn, is based on, among other things, customer participation in existing programs. To the extent actual customer participation significantly differs from these assumptions, the Plan's resources may need to be rebalanced among programs or sectors to ensure that the Plan's overall objectives are met.
8. Add delivery channels.
9. Shift resources among sectors as needed to address demand across the programs.
10. Alter rebate levels on a temporary (e.g., limited time offer or special promotion) or long-term basis to affect market response.

What mid-course corrections could be implemented? In addition to the steps discussed above, the Companies believes that certain programs can be ramped up through enhanced marketing efforts to outperform projected kWh and kW impacts to offset underperforming programs. This may require a re-balancing of program goals and budgets. Notwithstanding, the program tracking and reporting system will provide guidance for making such mid-course decisions and adjustments with enough time for such corrections to take effect. The Companies have infrastructure in place for analysis of such information and the development and resolution of recommendations arising from such analysis.

How will the appropriate mid-course corrections be identified? The Companies will use process evaluations to determine progress and to help identify any necessary corrective actions. Process evaluations will be performed using a combination of participant satisfaction and key customer perception surveys -- all performed using statistically significant samples along with a kWh and kW impact/cost analysis in which each program's performance is compared with Plan expectations. On a monthly basis, the Companies conduct an internal evaluation that reviews the progress of each program from both an energy savings and budget perspective.

4.1.5 *Provide implementation schedules with milestones.*

Section 1.4 describes the Companies' current roll out plan for the various programs proposed in this Plan.

The Gantt chart below details this Plan's anticipated implementation schedule, based on Commission approval during March 2021. The Companies note that they will continue to receive and process rebate applications for participation in the Companies' existing programs based on participation prior to June 1, 2021. The Companies will track and report this participation with their existing programs in accordance with the Phase IV Implementation Order.

Figure 4: Subprogram Implementation Schedule

Proposed Phase IV Program	Proposed Phase IV Sub-Program	October	September	November	December	January	February	March	April	May	Plan Year 2021				Plan Year 2022	Plan Year 2023	Plan Year 2024	Plan Year 2025	
											1	2	3	4					
Residential Programs																			
Energy Efficient Products Program	Appliance Recycling																		
	Appliance Rebate																		
	Consumer Electronics																		
	HVAC																		
Low Income Energy Efficiency Program	Comprehensive Audits																		
	Behavioral																		
	Multi Family - Res																		
	School Education																		
	EE Kits																		
	New Homes																		
Residential Low-Income Programs																			
Low Income Energy Efficiency Program	Weatherization																		
	LI - Appliances																		
	LI - School Education																		
	LI - EE Kits																		
	LI - Behavioral																		
	LI - Multifamily - Res																		
	LI - New Homes																		
Small Commercial & Industrial Programs																			
C&I Energy Solutions for Business Program - Small	Multi Family - SCI																		
	Prescriptive - SCI																		
	Prescriptive Other - SCI																		
	Custom - SCI																		
	Energy Management - SCI																		
Large Commercial & Industrial Programs																			
	Prescriptive - LCI																		
	Prescriptive Other - LCI																		
	Custom - LCI																		
	Energy Management - LCI																		

Key	
Develop and Issue RFP	
Select CSP / File Proposed CSP Contract for PUC approval	
Award CSP Contract after PUC approval	
Program Set-Up Activities	
Program Launch and Implementation per PUC Approval	

4.1.6 Provide a brief overview of how stakeholders will be engaged throughout Phase IV. Describe how low-income communities and other marginalized populations will be represented in stakeholder engagement.

During the development of this Plan, the Companies sought and obtained feedback on the proposed EE&C programs from stakeholders through a variety of methods. Stakeholder meetings discussing the Plan’s development and program design were held in December 2019, May 2020, and October 2020. The Companies also participated in numerous meetings with interested parties, including their current and potential CSPs and vendors. The Companies further involve stakeholders and stakeholder input on an on-going basis through outreach to both program allies and customers to inform program design and implementation – a practice the Companies intend to continue during the Phase IV Period.

During the Phase IV Period, the Companies plan to continue conducting a minimum of two stakeholder meetings per year, where the Companies will review the performance, progress, and operation of the programs with their stakeholders for collaborative discussion and

feedback. The Companies will also meet with stakeholders on an as-needed, requested, or on-going basis to discuss any Plan or program aspects that warrants discussion.

During the Phase IV Period, the Companies plan to continue engaging local contractors, quality assurance vendors, and Community Based Organizations (CBOs) in Advisory Panel meetings a few times each year to obtain feedback on how the low income and multifamily programs are operating in the field and if any updates to processes or procedures are recommended. The Companies also plan to continue holding Annual Meetings with all Act 129 and Low Income Usage Reduction Program (LIURP) contractors, quality assurance vendors, and CBOs to share ideas on the program and collaborate on how to better serve customers in their local communities.

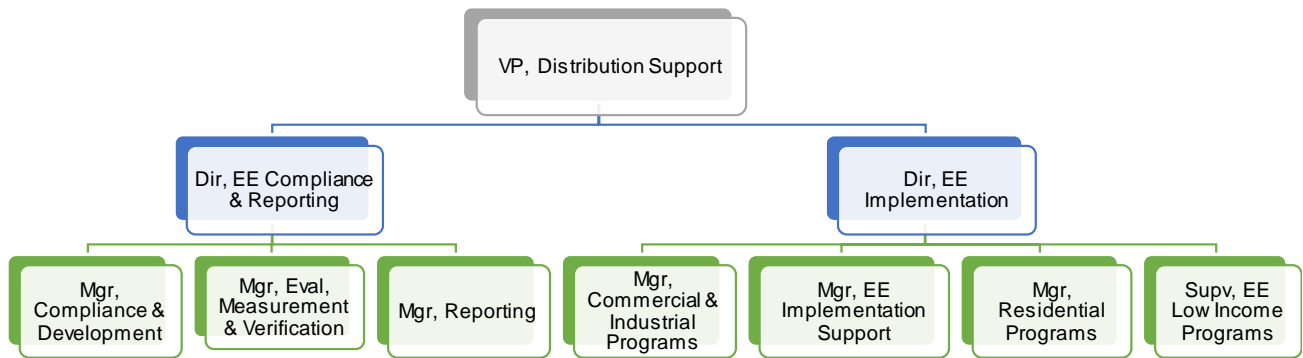
Multifamily stakeholder meetings will continue to be held during Phase IV with parties such as the Pennsylvania Utility Law Project, PA Housing Alliance, National Housing Trust, National Resource Defense Council, Pennsylvania Housing Finance Agency, and others each year to obtain feedback and garner assistance from them on marketing opportunities to reach multifamily buildings owners and tenants.

4.2 Executive Management Structure:

4.2.1 Describe EDC structure for addressing portfolio strategy, planning, review of program metrics, internal and external communications, budgeting and financial management, program implementation, procurement, program tracking and reporting, and Quality Assurance/Quality Control (QA/QC). Include EDC organization chart for management team responsible for implementing EE&C plan.

The Energy Efficiency Department is entrusted with ensuring that the Companies comply with all statutory energy efficiency and demand reduction requirements and that the approved programs are successfully implemented. The group reports to the Vice President, Distribution Support. This group also has responsibility for similar activities for FirstEnergy’s other utility subsidiaries in other states. The organization chart set forth below depicts the management team and their primary areas of responsibility as they currently exist.

Figure 5: Organization Chart



The Energy Efficiency Implementation group is organized based on program management responsibilities across customer classes. Key activities include planning and executing marketing campaigns and acquiring and managing the program implementation vendors to ensure successful program implementation. The Energy Efficiency Compliance and Reporting group is organized based on support functions that are common to all programs, such as Plan development, program evaluation, measurement and verification, and compliance tracking and reporting. The Implementation and Compliance and Reporting groups also receive support from areas, such as Rates and Regulatory Affairs, Legal, Customer Service, Customer Support, Information Technology (“IT”), and Communications.

4.2.2 Describe approach to overseeing the performance of sub-contractors and implementers of programs and how they can be managed to achieve results, within budget, and ensure customer satisfaction.

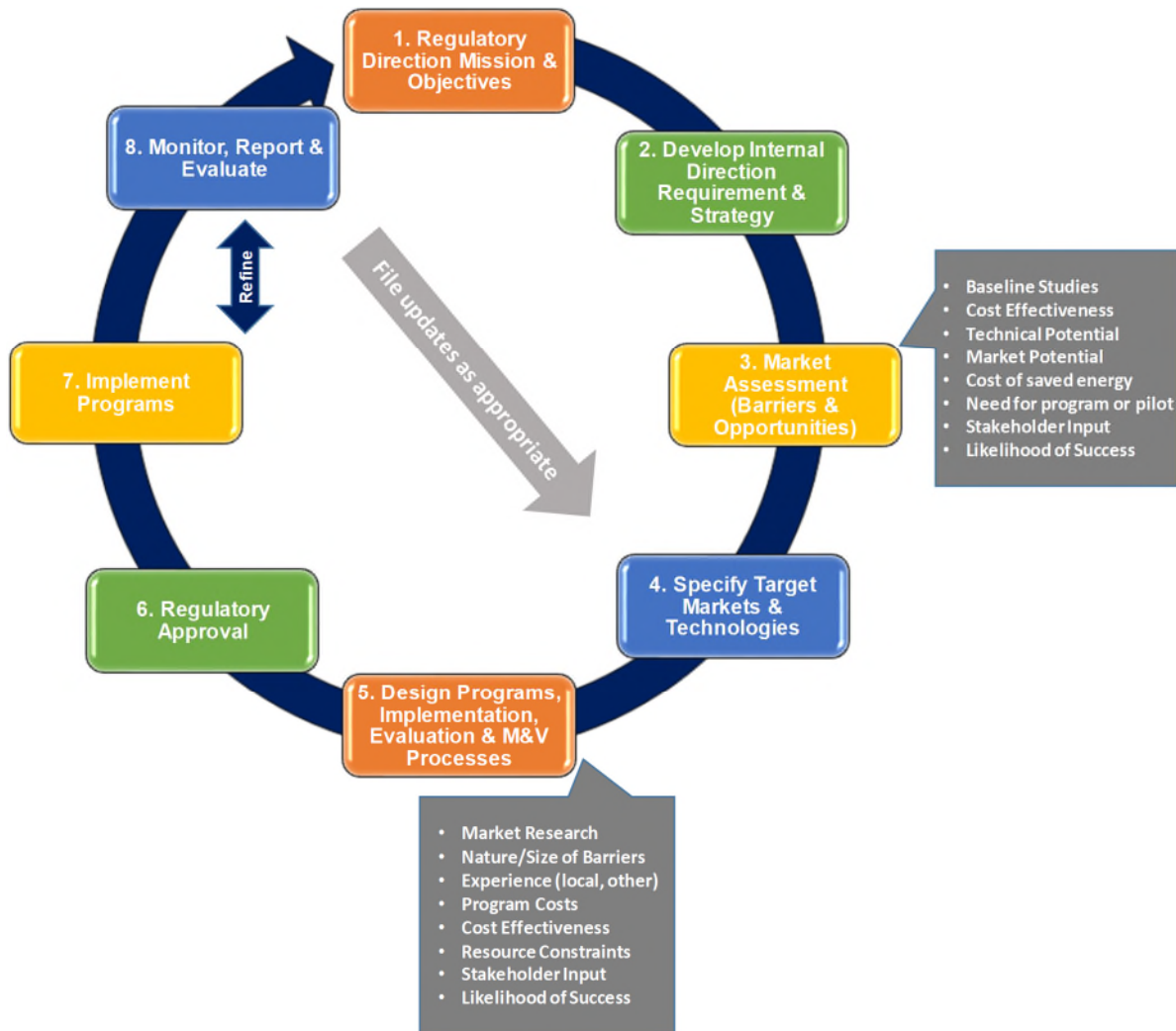
The Companies will provide administrative, contract management, program implementation, and marketing oversight of the selected CSPs primarily through the Energy Efficient Department staff who are dedicated for this purpose. Not only will such monitoring be accomplished using the tracking and reporting system described in Section 5, but this dedicated staff will also provide:

- Guidance and direction to the implementation contractors, including review and revision of proposed implementation plans and proposed milestones, marketing campaigns and, additionally, engage with the contractor team daily when working through strategy, policy, or implementation activities or issues.
- Review and approval of implementation contractor invoices to ensure program activities are according to contract, within investment, and on schedule.
- Review of implementation contractor operational databases for accuracy, ensuring incorporation of data into the Companies’ comprehensive tracking database to be used for overall tracking and reporting.
- Review of measure saving estimates maintained by the implementation contractor.
- Oversight and coordination of evaluation, measurement, and verification contractors.
- Participation in outreach to community groups, program allies and trade associations.
- Provision of guidance and direction on new initiatives or strategies proposed by the implementation contractors.
- Communication with implementation contractors advising of other initiatives that may provide opportunities for cross-program promotion.
- Review and approval of printed materials and advertising plans.

- Evaluation of portfolio and program effectiveness and recommendations regarding modifications to programs and program delivery as needed.
- Performance of periodic review of program metrics and evolving program design.

In addition to the comprehensive oversight activities described above, the Companies will follow the overall planning, implementation, monitoring, and evaluation framework identified below to help guide their programs and contractors:

Figure 6: High Level Overview of EM&V



The Companies believe that this framework, in conjunction with agility, flexibility, and a well-trained staff, will assist in their efforts to achieve the targets established by Act 129 and the Phase IV Implementation Order in an efficient and cost-effective manner.

4.2.3 Describe basis for administrative budget.

The model used for developing the EE&C programs involves a build-up of direct costs based on program or subprogram fixed costs and variable costs based on measure-level projections, both of which are then aggregated to the program level. Common costs are estimated at the State level and allocated to each Company based on each Company's savings and targets and then allocated to each program based on each program's ratio of [CSP Delivery and CSP Marketing program specific administrative](#) costs.

Program cost elements are categorized into Incentives and Non-Incentives consistent with the Phase IV Implementation Order and the Phase IV Energy Efficiency and Conservation Plan Template.¹¹ The following terms are used in the budget tables located throughout the Plan.

- **Incentives** – includes program specific costs for (1) rebates paid to customers, (2) upstream/midstream buydowns, (3) material cost of giveaways (e.g., kits) and (4) program direct install labor and material cost provided to customers.
- **Non-Incentives** – includes both program specific and common costs associated with program design, (utility) administration, (CSP) delivery, marketing, EM&V, and other costs, as follows:
 - Program Design – includes common costs associated with the development of the Plan and programs, including costs incurred by the utility for employee labor, software fees for Plan development, and research, design, and development related association fees.
 - Administration – includes common costs incurred by the utility for employee labor and expenses to oversee and manage the portfolio, costs to develop and maintain a data collection, tracking, and reporting system, and costs to perform duties associated with activities such as regulatory reporting or meetings to support the Plan (e.g., Stakeholder meetings, technical utility staff meetings, program evaluation group meetings).
 - Delivery – includes program specific CSP administration costs associated with the implementation and ongoing management of programs, including staffing, contractors, websites(s), call centers, quality assurances, and control processes, and other program specific activities supporting successful program implementation.
 - Marketing – includes common utility costs and program specific CSP costs associated with marketing for program messaging, general awareness, and education of the Plan and programs.

¹¹ See *Implementation of Act 129 of 2008 – Phase IV Energy Efficiency and Conservation Plan Template*, Docket No. M-2020-3015228 (Secretarial Letter dated Sept. 9, 2020).

- EM&V – includes program specific CSP costs associated with the evaluation, measurement, and verification of the programs.
- Other – includes other common costs associated with the development and implementation of the Plan, including outside consulting and legal fees.

4.3 Conservation Service Providers (CSPs):

4.3.1 List any selected CSPs, describe their qualifications and basis for selection (include contracts in Appendix).

The Companies have selected an EM&V CSP, whose contract is currently pending approval before the Commission. A summary of that contract, including justification for selection of the CSP, is included in Appendix A of the Plan. No other CSPs have been selected. However, the Companies have issued a RFP for the Tracking and Reporting System (“T&R System” or “System”), and now that the programs included in the Plan have been finalized, the Companies expect to issue RFPs to complete the CSP selection process in early 2021 (conditioned on Commission approval of the CSP contracts and related programs), so as to enable a timely transition and implementation of the programs and measures once Phase IV begins.. The timeline for selection of the other CSPs is included in Section 1.4 of this Plan.

The Companies have and will continue to adhere to the requirements as set forth in the Phase IV Implementation Order and will select all CSPs that provide consultation, design, administration and management, or advisory services to the Companies through a competitive bidding process. The RFP will be distributed to all qualified CSPs registered on the Commission’s website, and the Companies will try to acquire bids from minority or other special category businesses consistent with the Commission’s Policy Statements at 52 Pa. Code §§ 69.804, 69.807 and 69.808.

4.3.2 Describe the work and measures being performed by CSPs

The Companies will contract with CSPs to implement the portfolio of programs. The CSPs will be responsible for the start-up, set-up and ongoing management and delivery of the programs including staffing, development of website(s), promotional strategies, and processes ensuring quality and other controls supporting successful program implementation. During program set-up and for the duration of the program, the CSPs will meet with the Companies, their consultant(s), tracking system contractors, and the SWE as necessary and appropriate. The start-up phase will be performed in an organized and efficient manner as more fully described in Section 1.4.

The CSPs will support consumer education initiatives and be the interface with the customer and program allies on many of the programs being offered. The CSP will be required to maintain and strengthen constructive relationships with the Companies’ program management staff, customers, program allies, contractors, and other energy program partners.

In addition to the development of the startup and implementation plan, implementation CSPs will also be responsible for, but not limited to, the following activities:

- Managing advertising and marketing activities that promote the programs, including:
 - Telemarketing, sales training, participation in and sponsorship of program/industry seminars, community events, and trade shows;
 - Sponsoring special promotional “events” to encourage sales of high efficiency products, and/or retirement of less efficient equipment through “buy down” first cost and/or promotion of eligible equipment to customers;
 - Developing bill inserts, local newspaper ads, radio spots, direct mail, and point-of-sale displays at retailers, and the program website. Retailers and manufacturers will also be involved in cross-promoting product offers in conjunction with national campaigns like Earth Day and ENERGYSTAR® Change a Light, Change the World programs, and others;
 - Developing and launching promotional strategies, including use of the website energysavepa.com;
- Developing rebate application forms, detailed processes for managing rebate/incentive applications, rebate/incentive payment processes, reporting procedures, data collection and data recording processes, internal billing, and related documentation;
- Performing energy savings calculations, collecting data, and maintaining auditable records required to support program reporting, measurement, and verification consistent with the PA TRM;
- Performing quality assurance and verification inspections;
- Conducting outreach, training, certification management, and coordination with program allies;
- Performing outreach, communications, training, and development of participation agreements with retailers, distributors, and/or manufacturers, as appropriate; and
- Performing and/or managing fulfillment of all requests for services or energy efficient products offered through the programs.

The Companies will host or contract for website services, linked through the Companies’ public internet domain, www.firstenergycorp.com, the program website at energysavepa.com. Although FirstEnergy personnel will manage the overall content on the website, the CSPs will be responsible for generally managing their respective section of the site and updating it as necessary. Customers will be able to obtain information, contact the CSP, download program literature and application forms, or complete on-line forms and applications through the website.

4.3.3 Describe any pending RFPs to be issued for additional CSPs.

As of the date this Plan was filed, the Companies have issued RFPs for the following CSP services:

- EM&V activities; and
- Tracking/Reporting system

The Companies anticipate issuing the remaining RFPs for the following programs/subprograms in early 2021:

- Residential sector programs/subprograms implementation vendors
- Commercial and Industrial sector program implementation vendors

The Companies plan to award contracts with all program implementation CSPs in early 2021, pending Commission approval of both the programs and the proposed CSP contracts.

5 Reporting and Tracking Systems

5.1. *Indicate that the EDC will provide semiannual and annual reports as prescribed in the June 18, 2020 Implementation Order:*

The Companies have the following tracking and reporting plan to comply with the Commission's reporting requirements as prescribed in the Phase IV Implementation Order, including both the semiannual and annual reports. As more fully discussed in Section 5.2, the Companies have issued an RFP to provide a T&R System to provide the required reports as prescribed for all of the Companies. The System will have the ability to monitor the progress of the various programs being offered and generate the reports as required by the Commission.

Standard reports will be provided as necessary and required. The format and content will be consistent with that defined by the Commission and the SWE. The System will also be able to produce customized reports using a report writing tool. Summaries, dashboards, or other reporting formats will be used by the Companies to monitor program performance on an on-going basis.

5.2. *Project Management Tracking Systems:*

5.2.1. *Provide brief overview of the data tracking system for managing and reporting measure, project, program and portfolio activities, status and performance as well as EDC and CSP performance and expenditures.*

The comprehensive T&R System will report and track activities and results associated with EE&C programs throughout the FirstEnergy Pennsylvania footprint. The system will have the ability to track a customer through program-specific statuses. The System will provide standard status reports both for individual participants and at the program level and will be configured to provide required reports for individual service territories. Additional enhancements will be made to the System as deemed necessary as requirements change. In addition, the Companies will utilize SAP¹² enterprise software for financial management and reporting of program costs.

5.2.2. *Describe the software format, data exchange format, and database structure you will use for tracking participant and savings data. Provide examples of data fields captured.*

The T&R System will be web-based, allowing for access from any internet connection. The System will exchange data with implementation CSP databases wherever necessary to gather data to upload key program metrics on a routine basis (e.g., daily, weekly or monthly) and will ensure data integrity through routine reconciliation processes. The Companies will work with the implementation CSPs and the Companies' EM&V consultant on a regular basis to

¹² SAP, which stands for System Applications and Products, is FirstEnergy's Enterprise Resource Planning (ERP) software.

verify the accuracy of data transferred from implementation CSP databases to the T&R System. Not only will this reduce paperwork and minimize data entry, but it will support quality control and allow for easy access to track goal attainment and budget variances. The tracking and reporting system will store various data fields where appropriate, including but not limited to:

- Customer name
- Customer contact info
- Customer type
- Customer ID number
- Account number
- Premise number
- Project/Program name
- Contractor/Retailer
- Measure
- Service address
- Job status
- Completion date
- Install Date
- Heating system type
- Square footage
- kWh savings
- kW savings
- MWh savings
- MW savings
- Rate Code
- Incentive
- Transaction results
- Measures implemented

5.2.3. Describe how CSPs will integrate with the tracking system and the procedures to ensure the upload and exchange of data from CSPs to the EDCs is sound.

During the set-up period of each program, the Companies' program management and evaluation teams will work with the implementation CSP to define the list of data fields that the CSP will send to the Companies' T&R System. This Data Mapping Document will include, at a minimum, all the vendor's fields, the Companies' fields that they map to, and a definition of what that field is called in the vendor's source system for all the required fields. The CSPs are required to pass this data through an XML interface and to format program participation data as defined by this interface.

A File Transfer Protocol (FTP) process will be established to exchange the data between the implementation CSP and Companies' T&R System. During program start-up, a testing process including test files for the data exchange will be completed, and the test data will be

validated by the implementation CSP, the Companies' T&R System CSP, and the Companies' Energy Efficiency Reporting team. Once technical testing is successful, an upload schedule is established, and data uploads will be scheduled on a minimum monthly basis but can be more frequent as determined by the Companies to support successful program implementation.

Once production data exchanges begin with each implementation CSP, monthly validation occurs by the Companies' Energy Efficiency Reporting team to ensure the data between the implementation CSP's system and Companies' T&R System reconcile. Additional QA / QC validations occur for critical required fields, missing document attachments where applicable, and kWh and kW reasonability. Any discrepancies that are identified between the implementation CSP's source system and Companies' T&R System are reviewed and reconciled on an on-going basis between the implementation CSP and the Companies' program management, evaluation and/or reporting teams as necessary.

- 5.2.4. *Indicate that the EDC will fulfill all quarterly and annual data requests issued by the Commission and its statewide evaluator. Describe the level of access and mechanism for access for Commission and statewide evaluator.*

The Companies will comply with the Commission's reporting requirements as prescribed in the Phase IV Implementation Order, including both the semiannual and annual reports. The Companies will contract with a CSP to implement a T&R System to provide the required reports for all of the Companies. The format and content will be consistent with that defined by the Commission and the SWE. The T&R System will be web based, thus requiring an internet connection for access. The System will be designed to allow for varying levels of security-controlled access, and access for others, such as Commission staff and the SWE, will be provided as required.

6. Quality Assurance and Evaluation, Measurement and Verification

6.1. Quality Assurance/Quality Control:

An overview of quality assurance was discussed in Section 1.7 of this Plan.

6.1.1 Describe overall approach to quality assurance and quality control.

The following are examples of specific steps that the Companies took toward quality assurance and quality control during the design phase of this Plan:

- Use of qualified and experienced personnel, including the Companies' expert consultant, to provide input to the design of the EE&C programs;
- Selection of EE&C measures compliant with the requirements of the PA TRM or otherwise proven in the industry;
- Use of proven approaches to reach both the energy savings and demand reduction targets set for the Companies;
- Communication with interested parties and other stakeholders on EE&C program design and objectives throughout the program development process; and
- Validation of EE&C program projections and assumptions with the Companies' expert consultant and implementation team.

During the implementation phase of this Plan, the Companies intends to acquire selected program implementation CSPs who will provide processes that accurately document and verify data used to support energy savings and peak load reductions – all of which will be subject to audit and review by both the Companies' EM&V contractor and the SWE. The Companies will perform, directly or through third-party evaluators, their own quality assurance and control processes, including evaluation of CSP systems, in order to ensure the accuracy and reliability of the reported data and savings. Such evaluations will have the following key characteristics:

- Both deemed and custom measures will be included in the evaluation universe;
- The statistically valid sample size may cover a subset or the entire population for a particular measure;
- The frequency and sample size of these evaluations will vary based on the significance of any findings; and
- The control points will target specific risks associated with the design or implementation of EE&C measures.

6.1.2 Describe procedures for measure and project installation verification, quality assurance and control, and savings documentation.

EM&V efforts evolve over time and change as programs move from initial roll-out to full-scale implementation. The Companies will engage an EM&V CSP who will develop and implement EM&V processes and procedures. While EM&V plans are written on a program-by-program basis, the Companies intends to utilize synergies among programs and between the Companies to reduce redundant work. EM&V plans may be refined over time to include best practices and lessons learned – issues periodically reviewed by the Companies and their EM&V CSP. The EM&V CSP will utilize the format required by the SWE for evaluation plans and will include the following topics:

Introduction and Program Background

Includes program description, measures covered, markets targeted, program implementation activities, applicable budgets, and expected program participation.

Evaluation Objectives

The overall objective for the impact evaluation is to quantify and validate the extent of energy saved and demand reduced as a result of a program. Process evaluation is viewed as providing the explanatory depth to improve program processes, better understand market barriers and opportunities, and support identification of opportunities for improving program implementation, including marketing and promotion, delivery, tracking, and verification. Thus, impact evaluation identifies how much of an impact a program has, while process evaluation tells you why.

Overall Evaluation Approach

The Companies will perform processes to meet standards specified in the Evaluation Framework and consistent with the PA TRM. Programs include documentation requirements supporting expected (“ex-ante”) impact estimates following protocols defined in the PA TRM. Samples of participant applications are selected for EM&V. After the statistically valid samples of projects are selected, and the implementation CSP provides documentation pertaining to the projects, the first step in the EM&V effort is to review the documentation. Documentation that is reviewed for all projects selected for the sample may include program forms, databases, reports, billing data, logger data, weather data, and any other potentially useful data. The Companies will support metering studies independently or in coordination with other EDCs as appropriate.

Program-level gross ex post savings are calculated by applying achieved savings realization rates calculated for the analysis sample to program-level data for reported savings. Realization rates describe the relationship between verified savings and program forecasted savings estimates. The realization rates are calculated as the ratio of the EM&V CSP’s calculated measure savings to the ex-ante reported savings.

Sampling Plan

- Residential Programs

Statistically valid sampling of program participants (and in some cases non-participants) will vary among the programs according to participants, measures, and methods of installation. Where appropriate, the sample will be stratified by measure using proportional stratification. The advantage of a proportionally stratified random sample is that greater precision can be achieved than a simple random sample of the same size. Additionally, proportional stratification guards against an underrepresentation of any one particular measure. Sample stratification is particularly useful when there are clear differences in energy savings between each stratum, and when each stratum is relatively homogenous.

- Commercial & Industrial Programs

EM&V sampling will occur in stages consistent with program implementation. Projects are added to the program tracking system as they are submitted and accumulate over time. As a result, sample selection is spread over the entire program year.

Stratified sampling is performed to account for skewed distributions of savings and to reduce the sample sizes required to satisfy the desired precision requirements. By developing strata such that the projects within each stratum are relatively homogeneous with respect to expected kWh savings, a smaller sample is required from each stratum in order to arrive at desired precision estimates. When performing sampling for a skewed population, stratified sampling methods are preferred because a group of projects with less variance in expected savings requires a relatively smaller sample size in order to reach a given precision and level of confidence.

Projects with high kWh and kW savings contribute significantly to the variance in expected savings and are included in the sample with certainty. The EM&V CSP will select a site-level ex ante kWh and kW threshold above which all projects at a site will be selected for the sample with certainty. The remaining projects will then be assigned to a kWh and/or kW stratum according to the level of the expected site-level kWh and kW savings and are chosen at random within each stratum.

6.1.3 Describe process for collecting and addressing participating customer, contractor and trade ally feedback (e.g., suggestions and complaints).

Process evaluations will be performed periodically to support program performance. Where applicable, the EM&V CSP may incorporate program manager interviews, participant (and in some cases non-participant) customer surveys, and trade ally surveys. Program manager interviews explore researchable issues and help inform the customer survey design. The interviews identify stated program goals and objectives, assess the effectiveness of the programs' operations relative to the defined program goals and objectives, capture program processes and flows, and explore potential ways to improve implementation of the programs. Surveys are used to gather data on decision-making criteria and on the attitudes and behavior of decision-makers. Participants are questioned regarding their knowledge of the program,

their level of interest in the program, and their reasons for participating, and market or process barriers that could be addressed in the program design or implementation plan.

Throughout the implementation phase of this plan, the Companies will obtain additional direct input from various sources, including implementation CSPs, stakeholders and other EDCs for relevant developments, as well as the PUC and the SWE for insights into the evolution of the process.

6.1.4 Describe any planned market and process evaluations and how results will be used to improve programs.

There is a feedback loop among program design and implementation, impact evaluation, and process evaluation. Program design, implementation, and evaluation are elements in a cyclical feedback process. Initial program design is informed by prior baseline and market potential studies. Ongoing impact evaluation quantifies whether a program is meeting its goals and may raise questions related to program processes and design. Process evaluation tells the story behind how the impact was achieved and points the way toward improving program impacts by providing insight into program operations. Thus, the three elements work together to create a better, more effective program.

The Companies' EM&V CSP will conduct process evaluations to identify issues that may require mid-course correction, gauge progress toward goals, and measure customer, trade ally, and vendor knowledge and satisfaction with various program features. The evaluations will help identify possible ways to improve implementation of the programs, including potential market or process barriers that could be addressed in the program design or implementation plan.

6.1.5 Describe strategy for coordinating with the EM&V contractor and statewide evaluator.

A representative from the Companies' evaluation team, as well as the EM&V CSP, will attend formal evaluation and/or Program Evaluation Group meetings with the SWE to support development, ensure compliance with statewide EM&V directives, share ideas and suggestions regarding the approach being taken by the Companies, and otherwise assist the Companies in shaping and performing a prudent and effective evaluation strategy in coordination with the SWE and other EDCs. Informal meetings and/or discussions with Companies' representatives will also be arranged upon request of the SWE.

Additionally, the EM&V CSP will conduct evaluations on each program included in the Phase IV Plan as approved, while coordinating efforts with the SWE to minimize duplication of work. Documentation required by the SWE to fulfill its responsibilities will be provided as requested.

The EM&V planning process will also include the SWE to incorporate where appropriate its advice and consent to enhance EM&V efforts. The EM&V CSP will facilitate ongoing communications with the SWE and the Companies' representatives to ensure the highest

practicable level of coordination, particularly for any EM&V field activities and other time-sensitive EM&V tasks and processes.

7. Cost Recovery Mechanism

- 7.1. Provide the amount of total annual revenues as of December 31, 2006, and provide a calculation of the total allowable EE&C costs based on 2% of that annual revenue amount.**

See Table 5 in Section 1.3 for the Companies' Total Allowable Plan Costs pursuant to Act 129. This amount reflects the annual amount determined by the Commission in the Phase IV Implementation Order (Table 26 at page 120).

- 7.2. Description of plan in accordance with 66 Pa. C.S. §§ 1307 and 2806.1 to fund the energy efficiency and conservation measures, to include administrative costs.**

See Section 4.2.3 for the budgeting process used to identify the funding for the energy efficiency and conservation measures. See Section 7.4 for a complete description of the cost recovery mechanism proposed by the Companies. The cost recovery mechanism will include all costs as described in Appendix D, Table D-1, including administrative costs currently incurred by the Companies in connection with the development of this Plan. The costs to design, create, and obtain Commission approval of the Companies' Phase IV EE&C Plan include consultant costs, outside legal fees, and other specific and common costs associated with the development and implementation of the Companies' Plan consistent with Commission directives.

- 7.3. Provide data tables (see Tables 10, 11, and 12).**

PUC Tables 10, 11, and 12 are provided in Appendix B.

- 7.4. Provide and describe tariffs and a Section 1307 cost recovery mechanism, pursuant to the requirements of the June 18, 2020 Implementation Order ~~at 141~~, that will be specific to Phase IV Program costs. Provide all calculations and supporting cost documentation.**

The Companies' ~~proposed~~ *pro forma* tariff supplements for their proposed cost recovery mechanisms ("Phase IV EE&C-C Riders") are included in Met-Ed/Penelec/Penn Power/West Penn Power Statement No. 3. Consistent with Act 129, the Companies' tariffs will contain Section 1307 cost recovery mechanisms for the recovery of all Phase IV energy efficiency and conservation program costs. There is also a provision in the riders to allow for a reconciliation adjustment to collect any remaining Phase III Period costs not recovered prior to the end of the Phase III Period. This component will be shown as a separate E factor (E2) and will be in place through May 31, 2023.

Under the Companies' proposal, the Phase IV EE&C-C Riders would remain in effect during the Phase IV Period (June 1, 2021 through May 31, 2026).¹³ On an annual basis, to be effective June 1 of each year starting June 1, 2021, the Companies will file by May 1st of the same year the following information:

1. A reconciliation between actual Phase IV EE&C-C revenues and actual Phase IV EE&C-C costs for the Phase IV EE&C-C Reconciliation Period, as adjusted for removal of gross receipts tax. Because these are new riders, this information is not being provided in support of the Phase IV EE&C-C Rider rates for the period June 1, 2021 through May 31, 2022. Such reconciliations will be provided starting in Program Year 2 for rates to be effective June 1, 2022.
2. Any adjustment to the forecasted Phase IV EE&C-C revenues anticipated to be billed during April and May of the applicable program year, as adjusted for the removal of Gross Receipts Tax ("GRT"). Because these are new riders, this information is not being provided in support of the Phase IV EE&C-C Rider rates being proposed for the period June 1, 2021 through May 31, 2022. Such adjustments will be provided starting in Program Year 2.
3. The Phase IV EE&C budget estimate for the forthcoming Phase IV EE&C-C Computational Period by rate class.
4. A reconciliation adjustment for any remaining Phase III EE&C costs that were not collected by the end of the Phase III Period. This adjustment will only be included in the initial EE&C-C rate that will become effective on June 1, 2021, and the subsequent EE&C-C rate that will be in effect for the period June 1, 2022 through May 31, 2023. The reconciliation process is described in Section 7.6 below.

The Companies' proposed Phase IV EE&C-C Riders include the corresponding rates to be charged during Program Year 1 of the Plan. The Companies are requesting approval of both the riders and related rates as part of this proceeding. Worksheets demonstrating how these rates were determined are set forth in Exhibit AJW-6, which is attached to the direct testimony of Anthony J. Woytko (Met-Ed/Penelec/Penn Power/West Penn Statement No. 3).

As can be seen in the *pro forma* tariff supplements, the Phase IV EE&C-C rates are expressed as a price per kWh for the residential, commercial and street lighting classes. The industrial class will be billed based upon the individual customer's Peak Load Contribution ("PLC") kW. The Phase IV EE&C-C rates will be calculated and stated separately for the residential, commercial, street lighting, and industrial customer classes. The rate schedules that comprise the residential, commercial, street lighting, and industrial customer classes are identified on [pagespage 1-and-2](#) of the Companies' Phase IV EE&C-C Riders.

¹³ If the Commission concludes that additional cost-effective energy efficiency and/or demand reduction can be attained post Phase IV, the Companies anticipate recovering any Phase IV costs not recovered by the end of Phase IV through a Phase V cost recovery mechanism. Should there be no Phase V of the Commission's EE&C Program, the Companies reserve the right herein to request through a separate filing approval from the Commission to extend the Phase IV EE&C-C Rider beyond the end of Phase IV in order to collect any remaining Phase IV costs and/or to recover any remaining costs through another surcharge mechanism.

The Phase IV EE&C-C rates to be billed to the residential, commercial, street lighting, and industrial classes consist of ~~three~~^{four} principal components. The first is the EEC_C or “current cost” component; the second is the reconciliation component or “E” factor for Phase IV costs; ~~and~~ the third is a second “E” Factor (E₂) for collection of Phase III related costs remaining to be collected after May 31, 2021; and the fourth is a credit for any PJM Forward Capacity Market (FCM) revenues (net of costs associated with auction participation and including replacement capacity charges, capacity deficiency charges and any unavoidable PJM charges).

The EEC_C component represents the recovery of estimated costs to be incurred during the Annual Computation Period or “Computational Period,” in which the Phase IV EE&C-C rates will be in effect for each customer class. As shown on the second and third pages of the Companies’ Phase IV EE&C-C Rider tariff supplements, the EEC_C component is customer class specific. The costs included in each customer class’s EEC_C rate are identified as EEC_{Exp1}, EEC_{Exp2}, EEC_{Exp3}.

- EEC_{Exp1} represents customer class specific costs that will be associated with the customer class specific EE&C programs as approved by the Commission. These costs will also include an allocated portion of any common costs, such as marketing costs, that will be incurred by the Companies. ~~EEC_{Exp1} costs will be offset by a credit for any PJM capacity market revenues (net of the costs associated with auction participation and including replacing capacity charges, capacity deficiency charges and any unavoidable PJM charges).~~
- EEC_{Exp2} represents an allocated portion of incremental administrative start-up costs incurred by the Companies in connection with the development of each Company’s Phase IV EE&C Plan and related programs in response to the Commission’s orders and guidance in its Phase IV Implementation Order. These costs are incurred to design, create, and obtain Commission approval of the Companies’ Phase IV EE&C Plan, and include, but are not limited to, consultant costs, outside legal fees, and other specific and common costs associated with the development and implementation of the Companies’ Phase IV EE&C programs in compliance with Commission directives.
- EEC_{Exp3} represents the costs allocated to the Companies for the funding of the Commission’s statewide evaluator contract. These costs are not subject to the 2% spending cap imposed by Act 129.¹⁴

The E-factor component of each Companies’ residential, commercial, street lighting, and industrial class specific Phase IV EE&C-C rates represents a reconciliation of actual Phase IV EE&C program costs incurred by customer class to actual Phase IV EE&C revenues billed by customer class on a monthly basis. For each of the Companies, this monthly reconciliation by specific customer class will result in either an over-collection of costs by customer class (revenues billed, excluding GRT, greater than actual costs) or an under-collection by customer class (revenues billed, excluding GRT, less than actual costs). The E-factor component will be applied on a customer class specific basis.

¹⁴ Phase IV Implementation Order at 119.

The second E-factor component (E_2) is a reconciliation adjustment that will be in effect through the determination of rates to be effective June 1, 2022, in order to collect any remaining Phase III Period costs not recovered prior to the end of the Phase III Period.

The PJM component of each Companies' residential, commercial, street lighting, and industrial class specific Phase IV EE&C-C rates represents a credit for any PJM FCM revenues (net of costs associated with auction participation and including replacement capacity charges, capacity deficient charges and any unavoidable PJM charges). The credit will be assigned to the specific customer class associated with the kW values of the EE&C programs and measures that cleared in the PJM FCM for each delivery period.

The Phase IV EE&C-C Rider will include a reconciliation process that will calculate annual over- or under-collection by rate class. ~~Pursuant to the Commission's Phase IV Implementation Order (on page 143), any over or under collection will be reflected in annual adjustments to Phase IV rates.~~

All Plan costs (net-of-tax) and revenues included in the Companies' EE&C revenues will be excluded from distribution base rate treatment and subject to Commission review and audit. Further, to the extent that the Companies are reimbursed through the Phase IV EE&C-C Riders for Company-owned property, such reimbursement will be treated as a contribution-in-aid-of-construction resulting in a net-of-tax reduction in amounts capitalized for those assets. As a result, these costs will be excluded from rate base in determining future distribution base rate case revenue requirements.

7.5. *Describe how the cost recovery mechanism will ensure that measures approved are financed by the same customer class that will receive the direct energy and conservation benefits.*

Consistent with the Phase IV Implementation Order and Act 129, the Companies' proposed Phase IV EE&C-C Riders will permit the Companies to bill annual, levelized Phase IV EE&C-C rates on a per kWh or kW basis, as applicable to all residential, commercial, street lighting, and industrial customers. Throughout the Phase I, II, and III Periods, the Companies have had in place a tracking and reporting system and related processes and procedures, all of which have proven to be effective in tracking program specific costs during these earlier phases of the Commission's EE&C Program. The Companies will continue to utilize this system and related processes and procedures to track customer participation in each program and subprogram, such that cost allocations are done in a manner that ensures that there are no cross subsidies. The rates will be calculated specifically for each customer class to recover the costs of this plan as approved by the Commission and in compliance with 66 Pa.C.S. § 1307. Coupled with the reconciliation provisions by customer class included in the Companies' proposed Phase IV EE&C-C Riders, the Phase IV EE&C-C rates will provide full, equitable, and timely cost recovery of actual EE&C program costs incurred by each Company for each customer class's available EE&C programs as approved by the Commission in this proceeding.

7.6. Describe how Phase IV costs will be accounted for separately from costs incurred in the prior phasesphase.

Because the rider filings are generally filed with the Commission on May 1st of each year to be in effect on June 1st of that same year, the Phase III costs will be reconciled in two distinct steps. The first step will reconcile the total actual recoverable Phase III Plan expenditures incurred through March 31, 2021, to the actual Phase III Plan revenues collected through March 31, 2021. Since the Phase III Riders will end on May 31, 2021, the result of the Phase III reconciliation through March 31, 2021, will appear as a separate line item in the Phase IV EE&C-C Riders, which will go into effect on June 1, 2021. The second step will account for all actual Phase III revenues and expenses that are realized during the period April 1, 2021, through March 31, 2022, in a final reconciliation. The final over/under collection that results from this reconciliation will also be included as a separate line item in the Phase IV EE&C-C rate calculation that will be effective on June 1, 2022.

7.7. Describe how proceeds from PJM FCM participation will be incorporated into the cost recovery mechanism.

Pursuant to the Phase IV Implementation Order, any projected revenues received from any future source (relating to the Companies' Phase IV EE&C Plan) will be credited as a reduction to the total Projected Program Costs including the SWE. For example, PJM Revenues include PJM capacity market revenues (net of the costs associated with auction participation and including replacement capacity charges, capacity deficiency charges, and any unavoidable PJM charges) to be credited in the rate calculation.

8. Cost Effectiveness

- 8.1. *Provide in table format the values contained in the Outputs tab of the Avoided Cost Calculator. Additionally, a completed copy of the Avoided Cost Calculator should be provided with the filing. Discuss any sensitivities or key considerations associated with the forecast of avoided costs.***

The 2021 TRC Test Final Order (“PA TRC Order”) included a companion Avoided Costs Calculator (“ACC”) tool. The ACC was developed by the SWE and executes the methodology outlined within the PA TRC Order to develop the avoided energy and capacity costs for the PA TRC test calculations. This calculator also includes the costs of compliance with the Pennsylvania Alternative Energy Portfolio Standard (“AEPS”) within the avoided energy cost calculations. The Companies used the ACC to develop the Phase IV forecasts of avoided costs used in the cost-effectiveness testing of their EE&C Plan and programs. See Appendix D Table D-3 for the Avoided Cost “Outputs” from the ACC, and see Exhibits ACC-Met Ed, ACC-Penelec, ACC-Penn Power, and ACC-West Penn for a complete ACC for each Company.

- 8.2. *Confirm use of a 3% real discount rate (5% nominal discount rate) called for in the 2021 TRC Order.***

The Companies used a 3% real discount rate in its calculations pursuant the PA TRC Order.

- 8.3. *Explain and demonstrate how the proposed plan will be cost effective as defined by the Total Resource Cost Test (TRC) specified by the Commission.***

The projected savings generated and evaluated through this Plan are based upon the requirements and guidance of the PA TRM, the PA TRC Order, and other sources, which have been used in developing the key inputs to the analysis of the EE&C measures proposed in this plan, including but not limited to the following:

- SWE Database;
- Northeast Energy Efficiency Partnerships, Mid-Atlantic TRM; and
- ENERGY STAR.

The PA TRC test considers the combined effects of this Plan on both participating and non-participating customers. The sum of costs incurred by both the Companies and any participating customers were used to calculate the costs. The benefits calculated in the PA TRC test include the avoided energy costs, including generation, transmission, and distribution capacity costs, the avoided energy supply costs, fossil fuel and water savings, and operations and maintenance benefits as prescribed in the PA TRC Order.

Avoided costs are calculated using the ACC tool as set forth in the PA TRC Order. The calculator developed by the SWE executes the methodology to develop avoided energy

supply costs, including AEPS compliance, avoided capacity costs including generation, transmission, and distribution, and avoided natural gas for the PA TRC calculations. The energy prices were calculated by the ACC using futures prices quoted by the New York Mercantile Exchange (“NYMEX”) and Intercontinental Exchange (“ICE”) on July 31, 2020. Other inputs to the ACC were as provided or prescribed in the PA TRC Order.

Avoided operation and maintenance costs were included as a benefit where quantified in the PA SWE database. Additionally, any measures that produced “reasonably quantifiable” savings in fossil fuel and water were also included as a benefit, as prescribed in the PA TRM and TRC Orders.

The Companies used the line loss factors as provided in Table 1-4 of the PA TRM.

The Companies escalated all cost projections by the 2% inflation rate and did not include the application of any additional escalation index as directed by the Commission in the PA TRC Order.

The total benefits were then calculated using the projected measure kWh and kW net verified savings multiplied by the assumed number of measure units and the avoided capacity and energy costs. The value of the benefits per year was then discounted by taking a Net Present Value (“NPV”) over the measure lifetime using 3% real discount rate (5% nominal discount rate).

On the costs side, the PA TRC test includes the costs of the various programs incurred by the Companies and the participating customers, including all program administration and overhead costs (i.e., treated as a PA TRC cost regardless of whether the labor, materials, and other fees are incurred by participating customers, EDC staff, a CSP, or evaluation contractor) and incremental customer costs. Giveaways (e.g., EE Kits) and directly installed equipment and labor costs are also treated as Incremental Measure Cost (IMCs) and incentives.

Program costs are budgeted by year, but operation and maintenance costs are based on measure life and are discounted using NPV back to the program year installed.

As discussed in Section D of the PA TRC Order, kits and direct install labor and material costs will be treated as both incentives and incremental costs.

The Companies also included estimated net-to-gross (NTG) ratios and realization rates based on previous program evaluations or other industry experience in their planning and in performing cost-effectiveness calculations on a net basis as prescribed in the PA TRC Order. NTG ratios depend on assumptions for effects from free ridership, spillover and rebound effects. Estimates for these factors are difficult to quantify and can change over time. The SWE acknowledges this in its 2011 report: “NTGRs [Net to Gross ratios] based on spillover, free ridership factors, etc. can represent oversimplifications that are highly dependent upon scale, program implementation dynamics, and technology.”¹⁵ Methods for measuring NTG

¹⁵ *Net Savings: An Overview, GDS Associates, Inc., Nexant & Mondre Energy, October 19, 2011*

ratios range from inexpensive surveys to more complex econometric modeling. Inherent issues with surveying such as biased and subjective responses, identifying correct respondents, etc., create uncertainty in the resulting values. While the econometric modeling may result in more accurate results, it is expensive, complex, and thus not typically performed on an annual basis. This leads to results that do not reflect any changes over time, such as technological changes, participant cost, etc. The SWE further states that “[t]he challenge of interpreting the NTG studies and converting study results and observations into NTGR is a complex process riddled with uncertainty and subjective judgment.”¹⁶ Therefore in the evaluation of any TRC results that incorporate NTG ratios, the speculative nature of the ratios should be recognized.

The results of the PA TRC test as described above are presented in PUC Tables 1 & 13 located in Appendix B of this Plan and are expressed as both a net present value and a benefit-cost ratio and on both a net and gross basis.

8.4. Provide TRC data tables on a gross and net TRC basis. See Tables 13.

See Appendix B, PUC Tables 13, for the PA TRC test results of the Companies’ Plan and programs on both a gross and net TRC basis.

¹⁶ *Net Savings: An Overview, GDS Associates, Inc., Nexant, & Mondre Energy, October 19, 2011.*

9. Plan Compliance Information and Other Key Issues

9.1. Plan Compliance Issues.¹⁷

9.1.1. Describe how the plan provides a variety of energy efficiency and conservation measures and will provide the measures equitably to all classes of customers in accordance with the June 18, 2020 Implementation Order.

As demonstrated throughout this Plan, a variety of programs are being offered, with at least one comprehensive program for residential and non-residential customer classes. The EE&C Plan includes a comprehensive portfolio of programs for the residential, small commercial and industrial, large commercial and industrial, low income, and governmental/non-profit/institutional (GNI) customer sectors. The Plan incorporates a variety of subprograms and measures that offer a broad range of services based on enhancements to existing programs and successful programs in other jurisdictions. The Plan incorporates both near-term and longer-term energy saving opportunities for customers, including single and prescriptive measures, multiple prescriptive and custom measures, direct install, and comprehensive whole building solutions. It provides opportunities for all customer classes to participate in EE programs. The Plan relies on experienced outsourced CSPs and leverages prior experiences and a variety of delivery channels that will support customer participation across all classes of customers.

Residential and low-income programs and subprograms were designed to address both educational and initial cost barriers and to tap a variety of delivery channels and vendors to support customer engagement, education, and participation. The residential and low income programs include direct or targeted offerings that engage customers and serve as a portal for other program offerings because they serve a dual purpose of providing customers with energy efficiency education as well as information regarding other program services and opportunities upon which they can act. The residential and low-income programs incorporate strategies to change behaviors and include incentives to address the initial cost barrier to promote the participation of all residential customers. The programs provide opportunities for prescriptive equipment so that customers who are unable or unwilling to undertake whole home/comprehensive solutions are still able to increase efficiency, and the programs also provide opportunities for customers interested in whole home/comprehensive solutions that encourage customers to consider a holistic approach to EE.

The commercial and industrial programs were designed to provide customer engagement and education, incorporate energy controls and strategies to change behaviors, include incentives to address the initial cost barrier, and tap a variety of delivery channels and vendors that promote the participation of all customers, including GNI customers. Commercial, industrial, and GNI customers are also addressed through subprograms that provide opportunities, including prescriptive rebates, custom measures, direct install, and whole building/comprehensive solutions. The programs include specific opportunities that ensure

¹⁷ These sub-sections may reference other chapters of the Plan, as they may restate what was included elsewhere in the Plan and are collected here only for convenience of review.

access for small customers, provide opportunities for single or multiple prescriptive and/or custom measures, so that customers who are unable or unwilling to undertake whole building/comprehensive solutions are still able to increase efficiency. And the programs include opportunities that encourage customers to consider a holistic approach to EE for customers who are interested and able to participate in whole building/comprehensive solutions.

The residential programs and commercial and industrial programs are also designed to serve multifamily buildings. The Multifamily subprograms will be targeted to engage customers, provide energy efficiency education, and provide information regarding program services and opportunities upon which they can act.

Collectively, the proposed programs and subprograms across all sectors cover all the major energy-consuming devices in the home, building, or business, thus increasing the opportunity for more customers to participate and benefit from one or more programs. Furthermore, the proposed programs promote and support comprehensive whole home/whole building/comprehensive solutions for both the residential and non-residential customer classes. Section 1, Table 2 presents a summary description of the programs by sector, and detailed descriptions and a listing of measures are provided in Section 3.

9.1.2. Provide a statement delineating the manner in which the EE&C plan will achieve the requirements of the program under 66 Pa. C.S. §§ 2806.1(c).

The Phase IV Plan has been developed to incorporate a comprehensive set of programs that, based on known conditions, are designed to allow the Companies to achieve the goals for energy and coincident demand reductions as set forth in the Phase IV Implementation Order, all within the statutory spending caps. See PUC Table 2 in Appendix B for the projected energy and demand reductions by each year and in total for the Phase IV Plan.

9.1.3. Provide a statement delineating the manner in which the EE&C plan will achieve the Low-Income requirements prescribed in the June 18, 2020 Implementation Order. Additionally, describe any EDC plans to harmonize Act 129 program delivery with Low Income Usage Reduction Programs and other external energy efficiency, conservation, and healthy housing programs (such as the Weatherization Assistance Program).

There are two low-income targets more fully described in Act 129 or the Phase IV Implementation Order. The first requires the Companies to obtain a minimum of 5.8% of their consumption reduction requirements from programs specifically targeted to the low-income sector. The second low-income target requires that each EE&C Plan include specific energy efficiency measures for households at or below 150% of the Federal Poverty Income Guidelines (“FPIG”), in proportion to that sector’s share of the total energy usage in the EDC’s service territory.¹⁸ Table 13 below provides the Low-Income targets established in the Phase IV Implementation Order:

¹⁸ 66 Pa. C.S. § 2806.1(b)(1)(i)(G)

Table 13: Phase IV Low-Income Savings Targets

EDC	Proportionate Number of Measures	2021-2026 Potential Savings (MWh) ¹	Low Income Savings Target (MWh)
Met-Ed	8.79	463,215	26,866
Penelec	10.23	437,676	25,385
Penn Power	10.64	128,909	7,477
West Penn	8.79	504,951	29,287

¹ 2020 Implementation Order at pg. 35

The Phase IV Plan includes a comprehensive suite of subprograms within the Low-Income Program for the low-income sector that are collectively designed to achieve the consumption reduction requirements.

The Low-Income Energy Efficiency Program outlined in this Phase IV Plan will serve a dual purpose of contributing to Act 129 goal attainment and minimizing the percentage of household income that is devoted to energy costs. Basic, enhanced, and comprehensive services and education will be offered in the low-income portfolio to give households more control over their energy spending. The Low-Income Energy Efficiency Program includes a variety of program services, delivery channels, and vendors to support customer engagement, education, and participation to achieve energy savings in low-income households. The program includes direct or targeted offerings that engage customers and serve as a portal for other program offerings because they serve a dual purpose of providing customers with energy efficiency education as well as information regarding other available program services and opportunities. The program offerings: (i) incorporate strategies to change behaviors; (ii) provide prescriptive measures, direct install measures, and whole home/comprehensive solutions at no-cost; and (iii) include enhanced incentives for select measures that collectively addresses the initial cost barrier to promote and achieve the participation of low-income customers. The program also targets the construction of new energy efficient low-income housing.

Through the Weatherization subprogram, the Companies will continue to endeavor to capture electric energy savings as part of the delivery of the Companies’ existing Low-Income Usage Reduction Program (“LIURP”) by tapping the considerable expertise and existing infrastructure of LIURP contractors, which consist of both Community Based Organizations (“CBOs”) and private contractors. LIURP has offered comprehensive energy efficiency services to eligible Pennsylvania households for years. This aspect of the Phase IV Plan continues to enhance and accelerate the deployment of services to LIURP-eligible households by providing additional measures and services to achieve more savings in each visit or through serving additional homes.

Appendix B, PUC Table 2 shows that the projected savings from the Low-Income Energy Efficiency Program exceeds the requirement to achieve 5.8% of the consumption reduction requirements from the low-income sector.

The requirement that each EE&C Plan include specific energy efficiency measures for households at or below 150% of the FPIG in proportion to that sector's share of the total energy usage in the EDC's service territory has been achieved by including measures that number at least proportional to low-income sector energy usage in the program targeted directly to low-income customers.

Appendix B, PUC Table 7 and Table 14 below lists [6764](#) measures that are provided directly or targeted to Low-Income customers through the Phase IV Plan. The measures listed in PUC Table 7 in Appendix B and Tables 8, 10 and 12 include a total of 108 additional non-low-income measures (without double counting measures offered in multiple sectors or measure tiers) resulting in a total of [175172](#) measures, of which low-income represents [3837](#)%, significantly greater than the target percentages (all under 11%).

Table 14: Residential Low-Income Sub-Measures

Available to Low-Income Customers
AC/Heating System Filter Replacement and Tune-Up
Air Sealing
Appliance Timers
Caulk
Central Air Conditioner
Clothes Washer
Dehumidifier
Door Repair or Replacement
Duct Insulation
Duct Sealing
Electric Baseboard Heater Replacement
Electric Clothes Dryer
Electric Dryer Venting Repair or Replacement
Electric Furnace
Electric Heat Pumps
Electric Ductless Mini-Split Heat Pumps
Electrical Repairs
Energy Education
Exhaust Fan Repair and Replacement
Faucet Aerator – Energy Saving
Freezer Replacement
Furnace Filter
Furnace Filter Whistle
Gravity Film Exchange (Drain Water Heat Recovery System)
Health and Safety Measures
Heat Pump Water Heater
Heated Waterbed Mattress Replacement
Insulation (attic, wall, floor, band joist, basement, crawl space)
LEDs
LED Nightlight
Pipe Insulation
Plumbing Repairs
Refrigerator Replacement
Refrigerator/Freezer Thermometers
Roof Coating
Room Air Conditioner Cover
Room Air Conditioner Replacement
Room Thermometer
Sash locks
Shower Head – Energy Saving
Smart Power Strip
Storm Windows & Doors
Tank Temperature Set-Back
Thermostat Replacement and Repair
Thermostatic Shower Valves
Vapor Barrier
Vents (Roof, Gable, Soffit and Ridge)
Weather Stripping
Window Quilt
Window Tint
Windows

The Companies have been harmonizing, coordinating, and leveraging their LIURP and Act 129 low-income offerings and funding, and they intend to continue those efforts during Phase IV as follows:

- The Companies' Act 129 low-income direct install programs fully harmonize with their LIURP by using the same website for both programs and conducting joint marketing; and
- The Companies' LIURP contractors are engaged to install additional measures funded by the Act 129 low-income programs in every income-qualifying home during the LIURP audit. This allows both programs to coordinate funding sources and more comprehensively serve the low-income customers' homes than would have occurred if each program worked independently.

In addition, the Companies' Act 129 low-income programs further harmonize and coordinate with their LIURP offerings by:

- Referring customers whose incomes are above 150% of Federal Poverty Income Guidelines (FPIG) (and do not qualify for Act 129 low-income programs) to LIURP;
- Referring customers with high electric use to LIURP to leverage LIURP funding; and
- Referring customers with low electric use (who do not qualify for the LIURP program) to the Companies' Act 129 low-income programs for service.

Harmonizing, coordinating, and leveraging both Act 129 low-income and LIURP offerings and funding allow the Companies to serve the needs of their unique income-qualifying customers comprehensively and efficiently.

In addition to coordination with their LIURP offerings, the Companies also coordinate on the delivery of their low-income programs with other external programs. Some examples of this coordination include the following:

- Vendors who implement low-income programs are required to use commercially reasonable efforts to coordinate program services and installations with the PA State Weatherization Assistance Program and Natural Gas Distribution Companies ("NGDC") providers located within the Companies' service territories.
- A Company representative participates in a Pennsylvania Weatherization Advisory Council's Coordination Committee, in which barriers to coordination of all low-income programs have been identified and are being resolved by the group.
- The Companies' Energysavepa.com website allows efficient coordination through the on-line application process by obtaining the customer's NGDC information and the customer's sign off allowing the Companies to share customer information. The customer information is then automatically sent to the

appropriate NGDC in an e-mail at the same time the application is received by the Companies.

- Existing relationships are leveraged with the overlapping NGDCs and have agreed upon joint procedures.

The Companies believe that their efforts to coordinate both with their LIURP and with external programs has been successful to date, and they plan to continue these efforts and coordination with their peer utilities and partners in Pennsylvania. [The Companies will present and solicit input on their coordination efforts with stakeholders on an annual basis throughout Phase IV implementation.](#)

9.1.4. Describe how the EDC will ensure that no more than two percent of funds available to implement the plan shall be allocated for experimental equipment or devices.

Recognizing the five-year duration of Phase IV, the EE&C Team plans to continue collaborating with the Electric Power Research Institute (EPRI) and participating in research projects, demonstrations, and/or pilots on technological advancements in efficient measures, but at less than two percent of funds available. To ensure that the Companies do not exceed this limitation, the EE&C Team continuously evaluates costs incurred for the implementation of various aspects of the Companies' EE&C Plan. This evaluation includes the tracking of funds expended for any experimental equipment or devices to ensure that no more than two percent of the funds available to implement the plan is spent on such equipment or devices. Should the costs incurred for the evaluation of such equipment and devices begin to approach the 2% threshold, the Companies will adjust their spending accordingly. Further, the Phase IV Plan primarily focuses on encouraging the accelerated adoption of commercially available technologies for achieving the energy efficiency and demand response requirements in a cost effective manner. See PUC Table 7 in Appendix B for the measures included in the Phase IV Plan and their eligibility requirements.

9.1.5 Describe how the plan will be competitively neutral to all distribution customers even if they are receiving supply from an EGS.

All programs are available to retail customers who receive distribution electric service from the Companies regardless of that customer's source of generation service and, thus, will be offered on a non-discriminatory basis. Likewise, the Phase IV EE&C-C tariffs will collect the costs from like customers, thereby assuring the Phase IV Plan is competitively neutral.

9.2. Other Key Issues:

9.2.1. Describe how this EE&C plan will lead to long-term, sustainable energy efficiency savings in the EDC's service territory and in Pennsylvania.

The purpose of this Phase IV Plan is to demonstrate the connections between end-use energy technologies and energy consumption and to better guide customers' energy decisions. The amount of energy used in the future is a central determinant of environmental impacts both within the Companies' service territories and beyond. Energy use will depend on the demand for energy services and the technologies used to supply those services.

The Companies' Phase IV Plan is intended to: (i) elevate customers' awareness of energy efficiency opportunities so that they become more conscious of their choices involving energy usage; and (ii) establish ongoing energy saving habits through market transformation by first providing introductory products and educational materials and then moving customers to more sophisticated and comprehensive energy efficiency options. In addition, many measures installed and appliances retired and/or replaced as a result of the execution of the Companies' Phase IV Plan have lengthy lifetimes. The measures will save energy for years to come, bridging customers to even better and more efficient technologies as they become available. So, the benefits of this Plan will extend far beyond the length of the specific programs.

9.2.2. Describe how this EE&C plan will leverage and utilize other financial resources, including funds from other public and private sector energy efficiency and solar energy programs.

The Companies' approach will be to encourage customers to use financial resources to gain the greatest possible financial support available to purchase and install energy-efficiency technologies. The Companies' implementation CSPs will educate customers on the funding mechanisms and resources that are available not only through the Phase IV Plan, but also through other sources such as third party financing programs, state and federal tax incentives, and potential funds that may be offered through other government agencies. Information will be available to customers on the program website as well as in general educational and program specific promotional materials where applicable. Customers will be encouraged to use all available financial resources to help offset some of their capital costs and expenses to undertake energy efficiency improvements. Furthermore, the low-income programs encourage coordination of funds from multiple sources, including Gas Energy Conservation programs, State Weatherization Assistance Programs, Local Community Block Grants, and housing rehabilitation services. The low-income programs also encourage customers who are not currently enrolled to seek LIHEAP grants, Dollar Energy Fund Grants, and Customer Assistance Program aid, as well as Keystone Renovate and Repair Loan Program, where applicable.

9.2.3. Describe how the EDC will address consumer education for its programs.

A concurrent marketing and educational campaign are essential to the success of these programs. The Companies will continue to market their existing programs and measures to

build awareness and interest in both the existing programs and the programs proposed under the Phase IV Plan. Since the Phase IV Plan leverages many of the programs currently being offered through the Phase III Plan, and the response to many of the Phase III programs has been positive, the Companies do not anticipate significant changes in their marketing and education strategy for Phase IV. Once the Commission approves the Phase IV Plan, the Companies will pursue educational and marketing efforts to build awareness and interest in the new or revised programs and measures. Included in each program's budget is a marketing budget for promoting the program for each year of the Plan, including sustaining marketing resources for subsequent years of the Plan to ensure adequate outreach for achieving program goals. The Companies' implementation CSPs will be required to develop and execute a marketing plan that will include a requirement that at least one member of the CSP team have educational expertise in social marketing and consumer behavior change. In addition, the Companies assign program managers and other staff to help manage customer communication and education efforts. This staff will be tasked with continually evaluating and, when appropriate, modifying the energy efficiency education messages and delivery strategies.

The Companies and/or the implementation CSPs will develop educational materials to be distributed during customer interactions in specific programs. These materials may include equipment fact sheets, customer and/or sector specific energy use information, installation and maintenance guides, and other materials. The Companies will also provide and seek input on marketing and other communication materials from interested parties through the stakeholder process.

The Companies' consumer website, energysavepa.com, contains information and tools to support customer energy-efficiency strategies, including information regarding their existing programs. The Companies will increase the information available on their website for the Phase IV Plan by posting customer educational and marketing materials developed for their new programs and measures.

9.2.4. Indicate that the EDC will provide a list of all eligible federal and state funding programs available to ratepayers for energy efficiency and conservation.

The Companies will provide a list of all known eligible federal and state funding programs that are available to customers for energy efficiency and conservation as part of their energy efficiency marketing and implementation efforts.

9.2.5. Describe how the EDC will provide the public with information about the results from the programs.

The Companies provide reports to the Commission as part of their regular reporting responsibilities, which are then posted on the Public Utility Commission's website. These reports will also be posted on the Companies' website for review by the public.

10. Appendices

Appendix A: CSP Contract(s)

Appendix B: PUC Tables 1-13

Table 1: Portfolio Summary of Lifetime Costs and Benefits of Energy Efficiency Measures

Table 2: Summary of Portfolio Energy and Demand Savings

Table 3: Summary of Portfolio Energy and Demand Savings

Table 4: Summary of Portfolio Costs

Table 5: Program Summaries

Table 6: Budget and Parity Analysis Summary

Table 7: Eligible Measures

Table 8: Estimated Savings and Participation

Table 9: Program Budget

Table 10: Sector-Specific Summary of EE&C Costs

Table 11: Allocation of Common Costs to Applicable Customer Sector

Table 12: Summary of Portfolio EE&C Costs

Table 13: TRC Benefits Table

Appendix C: Company Tables

Table C-1: Program costs by program year and total

Table C-2: Program savings by program year and total

Table C-3: Energy Efficiency as a Resource

Appendix D: Calculation Methods and Assumptions

Table D-1: Costs Assumptions

Table D-2: Measure Assumptions

Table D-3: Avoided Costs

**Appendix A:
CSP Contract(s)**

CSP Contract Summary

Status

Pending approval by PUC Staff

Full company name of contractor and SEP registration Docket Number

ADM Associates, Inc. – Docket A-2010-2175190

Brief description of statement of work

The Evaluation, Measurement, and Verification (EM&V) services being sought are to 1) perform impact and process evaluations, 2) perform verification of data used to generate regulatory reports, 3) support regulatory reporting, including generation and/or verification of tables or other information included in reports, 4) provide consultative and technical support for plan development and/or updates 5) provide evaluation feedback and guidance supporting effective implementation and accurate reporting for Program Managers, including coordinating and communicating results of any impact or other analyses and 6) perform evaluations and provide reports related to the Companies' offering energy efficiency and demand reduction resources in PJM capacity markets. The qualified firm must work with the selected Statewide Evaluator and meet future requirements developed by the Statewide Evaluator and the PUC.

Name of EE&C Plan Program associated with proposed contract and explanation if SOW addresses the Program in its entirety or in part

The proposed contract spans the portfolio of programs included in the Companies' approved Plans.

Estimated total contract cost and statement regarding incentives and rebates, their amount and explanation if total cost includes incentives and rebates

Redacted – Contains pricing information. Included in CSP contract filed with PUC staff.

Estimated targeted energy savings associated with contract

This contract will not produce energy savings, but rather measure and verify the energy savings produced by implementation of the programs in the Plans.

Timeframe and duration of contract from start date to completion

The term of the contract is for the duration of Act 129 Phase IV and is expected to run from contract award until May 31, 2027 to support final evaluation through the end of the Phase, including applicable reports for the final program year (program years are June 1 – May 31).

Statement relating to the number of bids that were received, justification for selection of CSP contractor/subcontractor if based on receipt of less than three bids for any particular program, and identification and explanation for non-selection of low-bid CSP, if applicable.

ADM was the only complete proposal received for providing the requested EM&V services for the duration of PA Act 129 Phase IV. The only other proposal received from the Request for Proposal (RFP), which was issued to all PA certified Conservation Service Providers, was limited to only one of the six EM&V services listed above in the statement of work, specifically the Companies' energy efficiency and

demand reduction resources participation in PJM capacity markets. That other proposal did not address the other five EM&V services identified above. ADM's pricing is competitive in the industry, less than the contracted amount for Phase III and based on time and materials. ADM has done an excellent job performing EM&V services for the FirstEnergy PA EDCs and has billed significantly below the "not to exceed" contract amounts historically. In addition, ADM has established expertise with Company programs, Pennsylvania EM&V procedures, and credibility with the Statewide Independent Evaluator and PUC staff. A new contractor would involve significant start-up costs. For all of these reasons, FirstEnergy requests that the Commission approve the Companies' recommended award of the EM&V contract to ADM.

**Appendix B:
PUC Tables 1-13**

Appendix B, Table 1: Portfolio Summary of Lifetime Costs and Benefits of Energy Efficiency Measures

Met-Ed

Portfolio	Total Discounted Lifetime Costs (\$000)	Total Discounted Lifetime Benefits (\$000)	Total Discounted Net Lifetime Benefits (\$000)	Cost-Benefit Ratio (TRC)
Residential (exclusive of Low Income)	\$45,861	\$62,708	\$16,847	1.4
Residential Low Income	\$15,138	\$10,827	-\$4,311	0.7
Commercial/Industrial Small	\$46,090	\$63,818	\$17,727	1.4
Commercial/Industrial Large	\$70,473	\$123,605	\$53,132	1.8
Total	\$177,562	\$260,958	\$83,396	1.5

Appendix B, Table 2: Summary of Portfolio Energy and Demand Savings

Met-Ed												
MWh Saved for Consumption Reductions (Meter-Level)	PY13		PY14		PY15		PY16		PY17		Total	
	1st-Year MWh	Lifetime MWh	1st-Year MWh	Lifetime MWh	1st-Year MWh	Lifetime MWh	1st-Year MWh	Lifetime MWh	1st-Year MWh	Lifetime MWh	1st-Year MWh	Lifetime MWh
Baseline	14,865,036		14,865,036		14,865,036		14,865,036		14,865,036		14,865,036	
Residential Sector (exclusive of Low Income) – Cumulative Projected Portfolio Savings	24,562	242,715	51,557	489,963	78,291	736,950	104,711	983,623	130,767	1,229,932	130,767	1,229,932
Residential Low Income Sub-Sector – Cumulative Projected Portfolio Savings¹	5,206	51,682	11,099	104,051	16,906	156,334	22,225	208,129	27,552	259,933	27,552	259,933
Commercial/Industrial Small Sector – Cumulative Projected Portfolio Savings	19,069	255,762	43,008	583,478	66,947	911,194	90,886	1,238,911	114,825	1,566,627	114,825	1,566,627
Commercial/Industrial Large Sector – Cumulative Net Weather Adjusted Savings	37,398	525,623	75,854	1,057,518	114,310	1,589,412	152,767	2,121,306	191,223	2,653,201	191,223	2,653,201
EE&C Plan Total – Cumulative Projected Savings	86,235	1,075,783	181,518	2,235,010	276,454	3,393,890	370,589	4,551,969	464,367	5,709,692	464,367	5,709,692
EE&C Plan Total – Percentage of Target to be Met	19%		39%		60%		80%		100%		100%	
Estimated Phase III Carryover Savings												41,447
Total Cumulative Projected Savings Phase IV + Estimated Phase III Carryover Savings	86,235	1,075,783	181,518	2,235,010	276,454	3,393,890	370,589	4,551,969	464,367	5,709,692	505,814	5,709,692
EE&C Plan Total – Percentage of Target to be Met	19%		39%		60%		80%		100%		109%	
Percent Reduction from Baseline	0.6%		1.2%		1.9%		2.5%		3.1%		3.4%	
Commission-Identified Goal											463,215	
Percent Savings due to Portfolio Above or Below Commission-Identified Goal											9%	

¹ Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 3: Summary of Portfolio Energy and Demand Savings

Met-Ed												
MW Saved for Consumption Reductions (System-Level)	PY13		PY14		PY15		PY16		PY17		Total	
	1st-Year MW	Lifetime MW	1st-Year MW	Lifetime MW	1st-Year MW	Lifetime MW	1st-Year MW	Lifetime MW	1st-Year MW	Lifetime MW	1st-Year MW	Lifetime MW
Baseline	2,644		2,644		2,644		2,644		2,644		2,644	
Residential Sector (exclusive of Low Income) – Cumulative Projected Portfolio Savings	4.7	44.4	9.9	89.9	15.1	135.4	20.2	180.9	25.2	226.3	25.2	226.3
Residential Low Income Sub-Sector – Cumulative Projected Portfolio Savings¹	0.8	7.7	1.7	15.4	2.7	23.2	3.5	30.9	4.3	38.6	4.3	38.6
Commercial/Industrial Small Sector – Cumulative Projected Portfolio Savings	3.7	48.0	8.0	105.3	12.4	162.5	16.7	219.7	21.0	276.9	21.0	276.9
Commercial/Industrial Large Sector – Cumulative Net Weather Adjusted Savings	6.5	90.1	13.2	181.4	20.0	272.8	26.7	364.1	33.4	455.4	33.4	455.4
EE&C Plan Total – Cumulative Projected Savings	15.8	190.2	33.0	392.1	50.1	593.9	67.1	795.6	84.0	997.2	84.0	997.2
EE&C Plan Total – Percentage of Target to be Met	21%		43%		66%		88%		111%		111%	
Percent Reduction from Baseline	0.6%		1.2%		1.9%		2.5%		3.2%		3.2%	
Commission-Identified Goal											76	
Percent Savings due to Portfolio Above or Below Commission-Identified Goal											11%	

¹Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 4: Summary of Portfolio Costs

Met-Ed

Sector	PY13		PY14		PY15		PY16		PY17	
	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%
Residential Portfolio Annual Budget	\$6,657	28%	\$6,818	27%	\$6,818	27%	\$6,818	27%	\$6,818	27%
Residential Low Income Portfolio Annual Budget	\$2,905	12%	\$2,908	12%	\$2,908	12%	\$2,830	11%	\$2,823	11%
Commercial/Industrial Small Portfolio Annual Budget	\$5,517	23%	\$7,091	28%	\$7,090	28%	\$7,091	28%	\$7,091	28%
Commercial/Industrial Large Portfolio Annual Budget	\$6,765	28%	\$6,772	27%	\$6,771	27%	\$6,772	27%	\$6,772	27%
Common Costs	\$2,006	8%	\$1,577	6%	\$1,558	6%	\$1,555	6%	\$1,552	6%
Total Portfolio Annual Budget	\$23,851	100%	\$25,166	100%	\$25,146	100%	\$25,066	100%	\$25,055	100%

Appendix B, Table 5: Program Summaries

Met-Ed

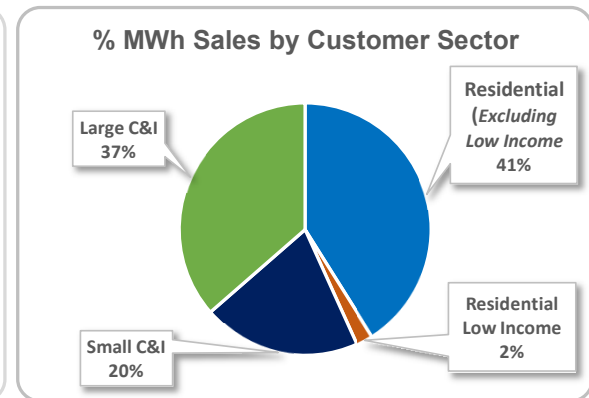
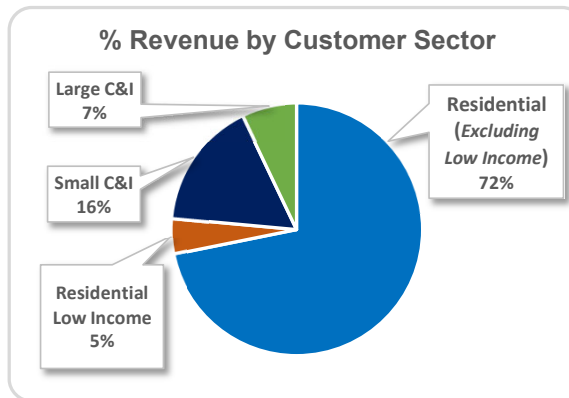
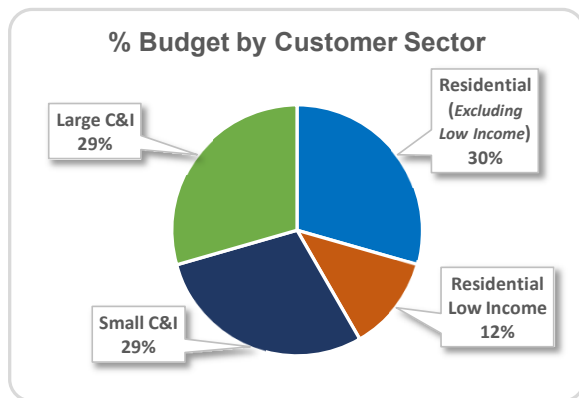
	Program Name	Program Market	Program Two-Sentence Summary	Program Years Operated	Lifetime MWh Savings	Lifetime MW Savings	Percentage of Portfolio Resource Savings (MWh% and MW%)	
Residential Portfolio Programs <i>(exclusive of Low Income)</i>	Energy Efficient Products Program	Residential	The program provides financial incentives to residential customers and/or retailers, contractors, distributors or manufacturers to promote customers to purchase and install energy efficient products, such as EnergyStar qualified appliances, consumer electronics, and other energy efficient products. The program will also provide financial incentives to turn in and recycle inefficient appliances, and to promote customers to perform HVAC maintenance or to upgrade HVAC equipment to more efficient technology.	5	394,290	80.8	7%	8%
	Energy Efficient Homes Program	Residential	This program promotes energy efficiency of customer homes through various measures that promote customer energy efficiency education, awareness and adoption of energy efficient behaviors and measures, including customized home energy reports, energy efficiency kits, school education, audits, direct install measures, and financial incentives for implementation of qualified energy efficiency measures in the home. The program also includes financial incentives for the construction of energy efficient new homes.	5	835,642	145.5	15%	15%
Totals for Residential Sector					1,229,932	226.3	22%	23%
Residential Low Income Sub-Sector Programs	Low Income Energy Efficiency Program	Residential	This program provides customized energy efficiency education and awareness to promote energy efficient behaviors along with no-cost basic to comprehensive whole house energy efficiency measures, including appliance replacement, to qualified low-income customers. The program also promotes low-income customers to install other energy efficient products, such as EnergyStar qualified appliances, consumer electronics, and other energy efficient products, or to turn in and recycle inefficient appliances, through customer education and outreach, giveaways and enhanced financial incentives.	5	238,831	35.7	4%	4%
Totals for Low-Income Sector					238,831	35.7	4%	4%
Commercial/Industrial Small Portfolio Programs	C&I Energy Solutions for Business Program - Small	Small C&I ¹	The Energy Solutions for Business Program provides financial incentives to small commercial and industrial customers, including government, institutional and multifamily customers, to purchase and install qualifying energy efficiency equipment, recycle inefficient appliances, upgrade less efficient equipment to more efficient end use technology, retrofit specialized equipment and processes, applications and end uses, complete qualifying high efficiency building shell or system improvements. The Program will also promote behavioral savings, adoption of energy saving technologies and efficient building operations through customer education and outreach, audits with direct install measures, building tune-up, energy management strategies, meter data analysis, or retrocommissioning or building operations training to achieve energy savings.	5	1,587,729	279.8	28%	28%
Totals for C&I Small Sector					1,587,729	279.8	28%	28%
Commercial/Industrial Large Portfolio Programs	C&I Energy Solutions for Business Program - Large	Large C&I	The Energy Solutions for Business Program provides financial incentives to large commercial and industrial customers, including government, institutional and multifamily customers, to purchase and install qualifying energy efficiency equipment, recycle inefficient appliances, upgrade less efficient equipment to more efficient end use technology, retrofit specialized equipment and processes, applications and end uses, complete qualifying high efficiency building shell or system improvements. The Program will also promote behavioral savings, adoption of energy saving technologies and efficient building operations through customer education and outreach, audits with direct install measures, building tune-up, energy management strategies, meter data analysis, or retrocommissioning or building operations training to achieve energy savings.	5	2,653,201	455.4	46%	46%
Totals for C&I Large Sector					2,653,201	455.4	46%	46%
Totals for Plan					5,709,692	997.2	100%	100%

¹ Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 6: Budget and Parity Analysis Summary

Met-Ed				
Customer Sector	Phase IV EE&C Budget (inclusive of allocated common cost)	% of Total EDC EE&C Budget	% of EDC Total Annual Revenue	% of EDC Total MWh Sales
Residential Sector <i>(exclusive of Low Income)</i>	\$36,569	29%	72%	41%
Residential Low Income Sub-Sector	\$15,178	12%	5%	2%
Residential Subtotal	\$51,746	42%	76%	43%
Commercial/Industrial Small Sector ¹	\$35,973	29%	16%	20%
Commercial/Industrial Large Sector	\$36,565	29%	7%	36%
Non-Residential Subtotal	\$72,538	58%	24%	57%
EDC TOTAL	\$124,284	100%	100%	100%

¹ Includes projected participation of Low Income households living in Multifamily housing.



Appendix B, Table 7: Eligible Measures

Met-Ed								
Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
Energy Efficient Products Program	Appliance Recycling	Freezer Recycling	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	5	\$75
		Refrigerator Recycling	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	6	\$75
		Room Air Conditioner Recycling	per unit	No	Removal of an existing inefficient room air conditioner from service, prior to its natural end of life (early retirement).	\$0	4	\$50
		Dehumidifier Recycling	per unit	No	Removal of an existing inefficient dehumidifier from service, prior to its natural end of life (early retirement).	\$0	5	\$50
	Appliance Rebate	Clothes Washer - Level 1	per unit	No	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications.	\$187	11	\$50
		Clothes Washer - Level 2	per unit	No	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 2.	\$187	11	\$75
		Clothes Washer - Level 3	per unit	No	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$187	11	\$100
		Refrigerator - Level 1	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications.	\$75	14	\$75
		Refrigerator - Level 2	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 2.	\$75	14	\$100
		Refrigerator - Level 3	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$75	14	\$150
		Freezer	per unit	No	Purchase and installation of a new freezer meeting or exceeding ENERGY STAR specifications.	\$43	11	\$40
		Clothes Dryer	per unit	No	Purchase and installation of a new clothes dryer meeting or exceeding ENERGY STAR specifications with moisture sensor or a heat pump type clothes dryer.	\$358	12	\$75
		Air Purifier / Cleaner	per unit	No	Purchase and installation of a new air purifier/cleaner meeting or exceeding ENERGY STAR specifications.	\$74	9	\$40
		Room Air Conditioner - Level 1	per unit	No	Purchase and installation of a new room air conditioner meeting or exceeding ENERGY STAR specifications and CEE Tier 1.	\$65	9	\$50
		Room Air Conditioner - Level 2	per unit	No	Purchase and installation of a new room air conditioner meeting either ENERGY STAR specifications and CEE Advanced Tier.	\$65	9	\$100
		Dehumidifier	per unit	No	Purchase and installation of a new dehumidifier meeting or exceeding ENERGY STAR specifications.	\$11	12	\$50
		Water Heater	per unit	No	Purchase and installation of a new electric Heat Pump water heater or Solar Water heater meeting or exceeding ENERGY STAR specifications in place of a standard electric water heater.	\$651	10	\$750
		Pool Pump Variable Speed	per unit	No	Purchase and installation of a variable speed swimming pool pump motor to replace a single speed motor.	\$421	10	\$400
		Dishwasher	per unit	No	Purchase and installation of a new dishwasher meeting or exceeding ENERGY STAR specifications.	\$316	10	\$50
		Water Cooler	per unit	No	Purchase and installation of a new water cooler meeting or exceeding ENERGY STAR specifications.	\$49	10	\$25
EV Charging Cord - Level 2 - Res	per unit	No	Purchase and installation of a new EV Charger Cord meeting or exceeding ENERGY STAR specifications.	\$500	10	\$100		
Smart Thermostat - Apmcs	per unit	No	New installation or replacement of a manual or conventional programmable thermostat with a ENERGY STAR certified connected thermostat. Existing ducted HVAC system with either an air source heat pump, fossil fuel heating with central AC, or an electric furnace with central AC are eligible. Electric resistance baseboard heating as the primary heating system is not eligible.	\$140	11	\$100		
Residential Occupancy Sensor	per unit	No	Purchase and installation of a wall, fixture, or remote-mounted occupancy sensor for interior or common area applications.	\$26	10	\$25		

Appendix B, Table 7: Eligible Measures

Met-Ed								
Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
Energy Efficient Products Program	Appliance Rebate	Ceiling Fan	per unit	No	Purchase and installation of a ceiling fan meeting or exceeding ENERGY STAR specifications with integral LED lamps.	\$15	15	\$35
	Consumer Electronics	Monitor	per unit	No	Purchase and installation of a new monitor meeting or exceeding ENERGY STAR specifications.	\$4	4	\$8
		Computer	per unit	No	Purchase and installation of a new computer meeting or exceeding ENERGY STAR specifications.	\$21	4	\$8
		Imaging	per unit	No	Purchase and installation of a new imaging equipment meeting or exceeding ENERGY STAR specifications.	\$14	6	\$8
		Smart Strip Plug Outlet	per unit	No	Purchase and use of a Current-Sensing Master/Controlled Advanced Power Strip (APS) in place of a standard power strip.	\$41	5	\$25
		TV	per unit	No	Purchase and installation of a new television meeting or exceeding ENERGY STAR specifications or 2020 Most Efficient, as applicable.	\$3	6	\$10
		Sound Bar	per unit	No	Purchase and installation of a new sound bar meeting or exceeding ENERGY STAR specifications.	\$5	7	\$20
		Smart Home	per unit	No	Purchase and installation of connected devices that allows for remote user control.	\$14	15	\$25
		HVAC	Heat Pump - Level 2	per unit	No	Purchase and installation of a single package or ducted split HP system central unit prior to end of life or a new system w/ ENERGY STAR qualifying units w/ SEER ratings > or = 16 or 13 EER or 9 HSPF (CEE Tier 2). Includes variable refrigerant flow (VRF) systems.	\$508	15
	Heat Pump - Level 3		per unit	No	Purchase and installation of a single package or ducted split HP central unit prior to end of life or a new system w/ ENERGY STAR qualifying units w/ SEER ratings > or = 18 or 13.0 EER or 10 HSPF (CEE Tier 3). Includes variable refrigerant flow (VRF) systems.	\$1,423	15	\$1,000
	Central Air Conditioner - Level 2		per unit	No	Purchase and installation of a single package or ducted split central AC unit prior to end of life or a new system w/ Energy Star qualifying units w/ SEER ratings > or = 16 or 13 EER (CEE Tier 2) Includes variable refrigerant flow (VRF) systems.	\$1,059	15	\$400
	Central Air Conditioner - Level 3		per unit	No	Purchase and installation of a single package or ducted split central AC unit prior to end of life or a new system w/ Energy Star qualifying units w/ SEER ratings > or = 18 or 13 EER (CEE Tier 3) Includes variable refrigerant flow (VRF) systems.	\$1,059	15	\$600
	Ductless Mini-Split Heat Pump - Level 3		per unit	No	Purchase and installation of a new or replacement ductless HP ENERGY STAR qualifying unit w/ SEER >= 20, EER >=12.5 or HSPF >= 10.	\$498	15	\$400
	PTAC - Level 2 - Multi Family		per unit	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$454	15	\$225
	PTHP - Level 2 - Multi Family		per unit	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$363	15	\$225
	Heat Pump - Water & GeoT - ES Tier 3		per unit	No	Installation of Energy Star qualified Ground Source Heat Pump: The following scenarios are eligible: • Water to Air - Closed Loop: 17.1 EER, 3.6 COP; Open Loop: 21.1 EER, 4.1 COP • Water to Water - Closed Loop: 16.1 EER, 3.1 COP; Open Loop: 20.1 EER, 3.5 COP; Direct: 16 EER, 3.6 COP	\$10,893	15	\$1,500
	Furnace Fan (Retrofit or New to ECM)		per unit	No	Purchase and installation of a high efficiency brushless permanent magnet fan motor (BPM) or electrically commutated motor (ECM) to replace a permanent split capacitor (PSC) motor.	\$242	15	\$150
	Smart Thermostat - HVAC		per unit	No	New installation or replacement of a manual or conventional programmable thermostat with a ENERGY STAR certified connected thermostat. Existing ducted HVAC system with either an air source heat pump, fossil fuel heating with central AC, or an electric furnace with central AC are eligible. Electric resistance baseboard heating as the primary heating system is not eligible.	\$140	11	\$100
	HVAC - Custom		per unit	No	Replacement, retrofit or maintenance of existing HVAC equipment or process changes or enhancements that results in electric energy savings.	\$113	3	\$100
	Circulating Pump		per unit	No	Replacement of existing single speed circulation pump or new circulation pump with variable speed motor and/or controls to automatically change pump speed to produce flow rates that match system heating requirements.	\$38	15	\$30
HE Bathroom Fans	per unit	No	Purchase and installation of a new high efficiency bathroom fan that meets or exceeds ENERGY STAR specifications.	\$44	15	\$20		
HVAC Quality Install	per unit	No	Implementation of proper sizing techniques which requires Manual J calculations, following of ENERGY STAR HVAC Quality Installation procedures, or similar calculations.	\$0	15	\$200		
Ductless Mini-Split A/C	per unit	No	Purchase and installation of a new or replacement ENERGY STAR qualifying unit w/ SEER >= 20, EER >=12.5.	\$498	15	\$400		

Appendix B, Table 7: Eligible Measures

Met-Ed									
Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1,2,3,4}	
Energy Efficient Products Program	HVAC	Heat Pump (Air-Wtr) w Domestic Hot Water	per unit	No	Replacement of ducted split central units prior to end of life or a new system w/ ENERGY STAR qualifying units. Includes variable refrigerant flow (VRF) systems. Heating Coefficient of Performance (COPH) shall be ≥ 1.7 at full load capacity and the following conditions: - Dry bulb air temperature of 5°F - Leaving water temperature of 110°F	\$1,423	15	\$1,000	
Energy Efficient Homes Program	Comprehensive Audits	Comprehensive Audit	per Audit w DI & Wgt'd Retrofits	No	Provides a Customized Home Energy Report, including diagnostics and testing to any residential customer. Comprehensive measures that are eligible for incentives include, but are not limited to: Windows, Duct Sealing, and Wall & Attic Insulation, etc.	\$968	9	Audit - Up to \$500 for the cost of the audit direct install measures, plus up to \$500 for audit recommended measures and additional incentives	
	Multi Family - Res	MF - Tenant - DI - Res	per tenant space	No	Multi-Family Tenant Space Audit w/ direct install measures.	\$200	15	Up to \$250 for the cost of an audit with direct install measures	
		MF - Tenant - Prescriptive - Res	per appliance	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$207	13	Same value as incentives offered through the Residential programs.	
		MF - Tenant - Custom - Res	per unit	No	Installation of Custom energy efficiency measures including, but not limited to: lighting, HVAC, appliances, etc.	\$269	15	Same value as incentives offered through the Residential programs.	
		MF - Common - Prescriptive - Res	per appliance	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$82	14	Same value as incentives offered through the Commercial & Industrial programs.	
		MF - Common - Custom - Res	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$2,947	15	Same value as incentives offered through the Commercial & Industrial programs.	
		MF - Common - DI - Res	per common space	No	Multi-Family Common Space Audit w/ direct install measures.	\$1,477	15	Up to 80% of the project cost	
	School Education	School Education	per wgt'd avg kit	No	Provides energy efficiency education and awareness through students for customers to conserve energy in their homes. In addition to the educational components, this program utilizes low cost direct install items that customers can install by themselves.	\$35	15	NA	
	EE Kits	Energy Efficiency Measures	per wgt'd avg kit	No	Energy efficiency kits to encourage customers to adopt energy efficient behaviors to conserve and save energy in their homes.	\$42	12	NA	
	Behavioral	On-Line Audit	per household	No	Online Audit process including recommendations and education emphasizing key points, general conservation tips and information on tools and resources supporting implementation of measures and efficiency behaviors that reduces consumption of energy and demand.	\$0	1	NA	
		Behavioral 2021	per household	No	Reports containing energy usage comparisons, recommendations and education emphasizing key points, general conservation tips and information on tools and resources supporting implementation of measures and efficiencies behaviors that reduces consumption of energy and demand	\$0	1	NA	
		Behavioral 2022	per household	No		\$0	1	NA	
		Behavioral 2023	per household	No		\$0	1	NA	
		Behavioral 2024	per household	No		\$0	1	NA	
		Behavioral 2025	per household	No		\$0	1	NA	
	New Homes	NC - Townhouse and duplex units	per unit	No		New Townhouse and duplex units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,185	15	\$1,500
		NC - Two-on-Two condominium units	per unit	No	New Two-on-Two condominium units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,004	15	\$1,000	
		NC - Single-family detached units	per unit	No	New Single-family detached units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,962	15	\$2,500	
		NC - Multi Family Low Rise	per unit	No	New Multi Family Low Rise to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$934	15	\$1,000	
		NC - Manufactured Housing	per unit	No	Purchase and installation of a Residential manufactured home compliant to and certified by EPA's ENERGY STAR Manufactured Home' program standard.	\$1,228	15	\$2,500	
NC - Multi Family High Rise		per unit	No	New Multi Family High Rise to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$934	15	\$2,500		

Appendix B, Table 7: Eligible Measures

Met-Ed								
Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
Low Income Energy Efficiency Program	Weatherization	Weatherization (WARM PLUS)	per household	Yes	WARM Plus - Comprehensive weatherization services provided to customers that qualify at or below 150% of the Federal Poverty Income Guidelines	\$969	12	NA
		WARM Extra Measures	per household	Yes	WARM - Extra Measures - additional energy efficiency measures provided in coordination with the Low Income Usage Reduction program--measures above and beyond what that program provides. For customers who qualify at or below 150% of the Federal Poverty Income Guidelines	\$595	12	NA
	LI - Appliances	Freezer Recycling - LI	per unit	Yes	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	5	\$100
		Refrigerator Recycling - LI	per unit	Yes	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	6	\$100
		Room Air Conditioner Recycling - LI	per unit	Yes	Removal of an existing inefficient room air conditioner from service, prior to its natural end of life (early retirement).	\$0	4	\$75
		Dehumidifier Recycling - LI	per unit	Yes	Removal of an existing inefficient dehumidifier from service, prior to its natural end of life (early retirement).	\$0	5	\$75
		Clothes Washer - Level 1	per unit	Yes	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications.	\$187	11	\$125
		Clothes Washer - Level 2	per unit	Yes	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 2.	\$187	11	\$125
		Clothes Washer - Level 3	per unit	Yes	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$187	11	\$125
		Refrigerator - Level 1	per unit	Yes	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications.	\$75	14	\$180
		Refrigerator - Level 2	per unit	Yes	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 2.	\$75	14	\$180
		Refrigerator - Level 3	per unit	Yes	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$75	14	\$180
		Freezer	per unit	Yes	Purchase and installation of a new freezer meeting or exceeding ENERGY STAR specifications.	\$43	11	\$90
		Clothes Dryer	per unit	Yes	Purchase and installation of a new clothes dryer meeting or exceeding ENERGY STAR specifications with moisture sensor or a heat pump type clothes dryer.	\$358	12	\$125
		Air Purifier / Cleaner	per unit	Yes	Purchase and installation of a new air purifier/cleaner meeting or exceeding ENERGY STAR specifications.	\$74	9	\$60
		Room Air Conditioner - Level 1	per unit	Yes	Purchase and installation of a new room air conditioner meeting or exceeding ENERGY STAR specifications and CEE Tier 1.	\$65	9	\$100
		Room Air Conditioner - Level 2	per unit	Yes	Purchase and installation of a new room air conditioner meeting either ENERGY STAR specifications and CEE Advanced Tier.	\$65	9	\$150
		Dehumidifier	per unit	Yes	Purchase and installation of a new dehumidifier meeting or exceeding ENERGY STAR specifications.	\$11	12	\$75
		Water Heater	per unit	Yes	Purchase and installation of a new electric Heat Pump water heater or Solar Water heater meeting or exceeding ENERGY STAR specifications in place of a standard electric water heater.	\$661	40	\$1,000
		Pool Pump-Variable Speed	per unit	Yes	Purchase and installation of a variable speed swimming pool pump motor to replace a single speed motor.	\$421	40	\$400
Dishwasher	per unit	Yes	Purchase and installation of a new dishwasher meeting or exceeding ENERGY STAR specifications.	\$316	10	\$75		
Water Cooler	per unit	Yes	Purchase and installation of a new water cooler meeting or exceeding ENERGY STAR specifications.	\$40	40	\$60		
EV Charging Cord - Level 2 - Res	per unit	Yes	Purchase and installation of a new EV Charger Cord meeting or exceeding ENERGY STAR specifications.	\$600	40	\$400		

Appendix B, Table 7: Eligible Measures

Met-Ed									
Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}	
Low Income Energy Efficiency Program	LI - Appliances	Smart Thermostat - Aplincs	per unit	Yes	New installation or replacement of a manual or conventional programmable thermostat with a ENERGY STAR certified connected thermostat. Existing ducted HVAC system with either an air source heat pump, fossil fuel heating with central AC, or an electric furnace with central AC are eligible. Electric resistance baseboard heating as the primary heating system is not eligible.	\$140	11	\$125	
	LI - School Education	School Education - LI	per wgt'd avg kit	Yes	Provides energy efficiency education and awareness through students for customers to conserve energy in their homes. In addition to the educational components, this program utilizes low cost direct install items that customers can install by themselves.	\$49	15	NA	
		LI - EE Kits	Energy Efficiency Measures - LI	per wgt'd avg kit	Yes	Energy efficiency kits to encourage customers to adopt energy efficient behaviors to conserve and save energy in their homes.	\$52	12	NA
		LI - Behavioral	On-Line Audit - LI	per household	Yes	Reports containing energy usage comparisons, recommendations and education emphasizing key points, general conservation tips and information on tools and resources supporting implementation of measures and efficiency behaviors that reduces consumption of energy and demand.	\$0	1	NA
			Behavioral 2021 - LI	per household	Yes		\$0	1	NA
			Behavioral 2022 - LI	per household	Yes		\$0	1	NA
			Behavioral 2023 - LI	per household	Yes		\$0	1	NA
			Behavioral 2024 - LI	per household	Yes		\$0	1	NA
			Behavioral 2025 - LI	per household	Yes		\$0	1	NA
		LI - Multifamily - Res	MF - Tenant - DI - Res - LI	per tenant space	Yes	Multi-Family Tenant Space Audit w/ direct install measures.	\$1,799	12	Direct install measures provided at no cost to low-income customer
			MF - Tenant - Prescriptive - Res - LI	per appliance	Yes	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$119	14	Prescriptive measures provided at no cost to low-income customer
			MF - Tenant - Custom - Res - LI	per unit	Yes	Installation of Custom energy efficiency measures including, but not limited to: lighting, HVAC, appliances, etc.	\$410	15	Custom measures provided at no cost to low-income customer
			MF - Common - Prescriptive - Res - LI	per avg light	Yes	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$410	14	Up to 100% of the project cost
			MF - Common - Custom - Res - LI	per project	Yes	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$14,733	15	Up to 100% of the project cost
			MF - Common - DI - Res - LI	per common space	Yes	Multi-Family Common Space Audit w/ direct install measures.	\$56,245	12	Up to 100% of the project cost
		LI - New Homes	NC - Townhouse and duplex units - LI	per unit	Yes	New Townhouse and duplex units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,185	15	\$1,500
			NC - Two-on-Two condominium units - LI	per unit	Yes	New Two-on-Two condominium units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,004	15	\$1,000
			NC - Single-family detached units - LI	per unit	Yes	New Single-family detached units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,962	15	\$2,500
			NC - Multi Family Low Rise - LI	per unit	Yes	New Multi Family Low Rise to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$934	15	\$1,000
			NC - Manufactured Housing - LI	per unit	Yes	Purchase and installation of a Residential manufactured home compliant to and certified by EPA's ENERGY STAR Manufactured Home' program standard.	\$1,228	15	\$2,500
			NC - Multi Family High Rise - LI	per unit	Yes	New Multi Family High Rise to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$934	15	\$2,500

Appendix B, Table 7: Eligible Measures

Met-Ed									
Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit)	1 2 3 4
C&I Energy Solutions for Business Program - Small	Multi Family - SCI	MF - Tenant - DI - SCI - LI	per tenant space	No	Multi-Family Tenant Space Audit w/ direct install measures.	\$1,619	12	Direct install measures provided at no cost to low-income customer	
		MF - Tenant - Prescriptive - SCI - LI	per Avg Appliance	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$107	14	Prescriptive measures provided at no cost to low-income customer	
		MF - Tenant - Custom - SCI - LI	per unit	No	Installation of Custom energy efficiency measures including, but not limited to: lighting, HVAC, appliances, etc.	\$269	15	Custom measures provided at no cost to low-income customer	
		MF - Common - Prescriptive - SCI - LI	per avg light	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$82	14	Up to 100% of the project cost	
		MF - Common - Custom - SCI - LI	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$14,733	15	Up to 100% of the project cost	
		MF - Common - DI - SCI - LI	per common space	No	Multi-Family Common Space Audit w/ direct install measures.	\$52,495	12	Up to 100% of the project cost	
		MF - Tenant - DI - SCI	per tenant space	No	Multi-Family Tenant Space Audit w/ direct install measures.	\$200	15	Up to \$250 for the cost of an audit with direct install measures	
		MF - Tenant - Prescriptive - SCI	per Avg Appliance	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$207	13	Same value as incentives offered through the Residential programs.	
		MF - Tenant - Custom - SCI	per unit	No	Installation of Custom energy efficiency measures including, but not limited to: lighting, HVAC, appliances, etc.	\$269	15	Same value as incentives offered through the Residential programs.	
		MF - Common - Prescriptive - SCI	per avg light	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$82	14	Same value as incentives offered through the Commercial & Industrial programs.	
		MF - Common - Custom - SCI	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$2,947	15	Same value as incentives offered through the Commercial & Industrial programs.	
		MF - Common - DI - SCI	per common space	No	Multi-Family Common Space Audit w/ direct install measures.	\$1,477	15	Up to 80% of the project cost	
	Prescriptive - SCI	Air Conditioning - Level 1 <=5.4 Tn - SCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) SEER >= 16 and EER>=13. Includes Variable Refrigerant Flow (VRF) systems	\$1,358	15	\$200	
		Air Conditioning - Level 1 >5.4 < 20 Tn - SCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) exceeding applicable standard by 5%. Includes Variable Refrigerant Flow (VRF) systems.	\$1,014	15	\$150	
		Air Conditioning - Level 1 >=20 Tn - SCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) exceeding applicable standard by 5%. Includes Variable Refrigerant Flow (VRF) systems.	\$99	15	\$120	
		Heat Pump - Level 1 <=5.4 Tn - SCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System HP, HSPF >= 9 (split), HSPF>=8.2 (single package).	\$1,358	15	\$200	
		Heat Pump - Water & GeoT - ES Tier 3 - SCI	per ton	No	Purchase and installation of a new or replacement groundwater source, water source or ground source heat pump system that meets or exceeds the energy efficiency requirements of applicable standard 5%. The following retrofit scenarios are considered: • Ground source heat pumps for existing or new non-residential HVAC applications • Groundwater source heat pumps for existing or new non-residential HVAC applications • Water source heat pumps for existing or new non-residential HVAC applications	\$8,802	15	\$300	
		Ductless Mini-Split HP - Level 3 - SCI	per ton	No	Purchase and installation of a new ENERGY STAR Ductless Mini Split HP less than 5.4 tons, SEER >=20, EER >=12.5 EER , and HSPF>=10	\$514	15	\$300	
		PTAC - SCI	per ton	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$363	15	\$150	
		PTHP - SCI	per ton	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$363	15	\$150	
Room Air Conditioner- SCI		per ton	No	Purchase and installation of new unit meeting or exceeding the ENERGY STAR standard.	\$0	9	\$150		
Smart Thermostat -Rebate - SCI		per unit	No	Purchase and installation of a smart thermostat that meets ENERGY STAR certification.	\$204	8	\$150		
HVAC - Custom - SCI	per project	No	Purchase and installation of new high-efficiency HVAC equipment in place of standard efficiency equipment. Also includes the purchase and installation of HVAC controls/controllers that optimizes ventilation and economization control schemes of a building's HVAC system based on occupancy or sensor level inputs.	\$11,007	15	\$0.20 per kWh and/or \$500 per kW saved			

Appendix B, Table 7: Eligible Measures

Met-Ed								
Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Circulating Pump (Mid Strm) - SCI	per unit	No	Purchase and installation of a new ECM or BPM circulator pump, rip single speed motor for space heating in a commercial application.	\$38	15	\$150
		HVAC - Maintenance - SCI	per unit	No	Maintenance services applicable to C&I customers for documented tune-ups of packaged and split systems up to 20 Tons.	\$175	10	\$250
		Furnace Fan (Retrofit or New to ECM) - SCI	per unit	No	Purchase and installation of a high efficiency brushless permanent magnet fan motor (BPM or ECM) to replace a permanent split capacitor (PSC) motor.	\$242	15	\$150
		Lighting Control (Daylight & Occupancy) - SCI	per sensor	No	Purchase and installation of non-networked lighting controls including, but not limited to: daylight On/Off, dimming, occupancy sensors (wall plate, remote & fixture mounted), time clocks and switching controls.	\$30	8	\$50
		Linear Fluorescent - SCI	per fixture	No	Purchase and installation of high performance T8 lamps replacing existing T8 lamps, or higher efficiency than existing or designed.	\$6	10	\$0.20 per kWh and/or \$550 per kW saved
		LED Linear - SCI	per fixture	No	Purchase and installation of linear LED lighting equipment to a higher efficiency than existing or designed. Must meet ENERGY STAR or DLC, as applicable.	\$31	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Channel Signage - SCI	per lin ft	No	Replacement, retrofit or new installation of channel letter signs w/ LED technology. Must meet ENERGY STAR or DLC, as applicable.	\$35	15	\$3
		Exit Sign - SCI	per unit	No	Purchase and installation of LED exit signs to replace incandescent or fluorescent exit signs.	\$18	15	\$23
		LED Fixture External - SCI	per fixture	No	Replacement or new installation of a lighting fixture wired for exclusive use with LED lamps installed in an exterior setting. Must meet ENERGY STAR or DLC, as applicable.	\$203	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Fixture Internal - SCI	per fixture	No	Replacement or new installation of a lighting fixture wired for exclusive use with LED lamps installed in an interior setting. Must meet ENERGY STAR or DLC, as applicable.	\$40	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Lamp - SCI	per unit	No	Purchase and installation of an ENERGY STAR LED lamps, including A-Line and specialty lamps.	\$5	14	\$20
		Lighting - Other - SCI	per project	No	Replacement or new installation of lighting to a higher efficiency than existing or designed lighting equipment. Must meet ENERGY STAR or DLC, as applicable.	\$6,600	15	\$0.20 per kWh and/or \$550 per kW saved
		Street & Area Lighting (Customer Owned) - SCI	per fixture	No	Purchase and installation of new lighting equipment for Street and Area lighting applications to a greater efficiency than existing or designed	\$173	12	\$220
		LED Reach in Refrig / Frizer Light - SCI	per door	No	Purchase and installation of LED luminaires in vertical and horizontal refrigerated display cases replacing linear fluorescent lamp technology. Must meet ENERGY STAR or DLC, as applicable.	\$59	8	\$75
		Lighting - Custom - SCI	per project	No	Replacement or new installation of lighting to a higher efficiency than existing or designed lighting equipment. Specialty lighting applications may be eligible, but will require approval by the Company.	\$6,600	15	\$0.20 per kWh and/or \$550 per kW saved
		Network Lighting Control - SCI	per sq ft of Lighting Controlled	No	Purchase and installation of a networked lighting control system by applying, but not limited to: occupancy sensors, photo sensors, and dimming controls where the system must dim or turn off individual fixtures based on local occupancy and/or light levels. The control system must include luminaire-level lighting control (LLLC) that can switch lights on and off based on occupancy and is capable of full-range dimming based on local light levels.	\$1	8	\$0.60 Per Watt Controlled
		Linear Lamp - MS - SCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$7	15	\$0.20 per kWh and/or \$550 per kW saved
		High/Low Bay Lamp - MS - SCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$162	12	\$0.20 per kWh and/or \$550 per kW saved
		LED Fixture - MS - SCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$72	15	\$0.20 per kWh and/or \$550 per kW saved
		ECM Evap Fan Motor - SCI	per unit	No	Purchase and installation of a ECM motor to replace a permanent split capacitor or shaded pole motor in a commercial refrigeration unit.	\$227	15	\$75
Evap Fan Controls - SCI	per unit	No	Purchase and installation of ON/OFF controls or multispeed controls for an uncontrolled ECM or permanent split capacitor or shaded pole motor in a commercial refrigeration unit.	\$532	10	\$200		
Refrigerator - Reach In - SCI	per unit	No	Purchase and installation of a new high efficiency packaged commercial refrigerator meeting ENERGY STAR.	\$729	12	\$200		
Freezer - Reach In - SCI	per unit	No	Purchase and installation of a new high efficiency packaged commercial freezer meeting ENERGY STAR.	\$977	12	\$200		

Appendix B, Table 7: Eligible Measures

Met-Ed								
Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Refrigerated Case Cover - SCI	per lin ft	No	Purchase and installation of night covers on existing open type refrigerated display cases.	\$38	5	\$22
		Anti Sweat Heater Controls - SCI	per door	No	Purchase and installation of anti-sweat door heaters on glass refrigerator or freezer doors with either ON/OFF controls or micropulse controls.	\$418	12	\$60
		Strip Curtain - SCI	per sq ft	No	Purchase and installation of strip curtains applied to walk in cooler or freezer doors; curtains must be at least 0.06" thick. Low temp strip curtains must be used on low temp applications.	\$10	4	\$3
		Ice Machine - SCI	per unit	No	Purchase and installation of new ENERGY STAR qualified ice machine.	\$378	8	\$590 0-500 lbs \$980 501-1000 lbs \$1100 over 1000 lbs
		Beverage Vending Machine - Controls - SCI	per unit	No	Retrofit controls for a non ENERGY STAR rated vending machine.	\$180	5	\$125
		Beverage Vending Machine - Energy Star - SCI	per unit	No	The purchase and installation of an ENERGY STAR certified beverage vending machine.	\$180	5	\$150
		Steam Cooker - SCI	per unit	No	Purchase and installation of new a ENERGY STAR steam cooker.	\$351	12	\$300 - 3 pan \$400 - 4 pan \$500 - 5 pan \$600 - 6 pan
		Fryer - SCI	per unit	No	Purchase and installation of new a ENERGY STAR fryer.	\$1,038	12	\$500
		Griddle - SCI	per unit	No	Purchase and installation of new a ENERGY STAR griddle.	\$950	12	\$500
		Hot Food Holding Cabinet - SCI	per unit	No	Purchase and installation of new hot food holding cabinet meeting or exceeding ENERGY STAR standards.	\$421	12	\$500 - full size \$375 - 3/4 size \$225 - 1/2 size
		Combination Oven - SCI	per unit	No	Purchase and installation of new Combination Oven meeting or exceeding ENERGY STAR standards.	\$2,512	12	\$1,500
		Convection Oven - SCI	per unit	No	Purchase and installation of new Convection Oven meeting or exceeding ENERGY STAR standards.	\$539	12	\$500
		Dishwasher - SCI	per unit	No	Purchase and installation of ENERGY STAR qualified stationary or conveyor type commercial dishwasher.	\$882	10	\$500
		Induction Warmer/Rethernalizer Well - SCI	per unit	No	Purchase and installation of a energy efficient Rethernalizer & Food Warmers.	\$500	15	\$200
		Coffee Brewer - SCI	per unit	No	Purchase and installation of a an ENERGY STAR Type II small, medium, or large coffee brewer.	\$200	15	\$100
		Pre-Rinse Sprayer - SCI	per unit	No	Purchase and installation of a new sprayer replacing an existing unit that use 1.6 GPM or less, on/off squeeze lever, and cleanliness of performance of at least 26 seconds. Electric water heating only.	\$6	8	\$55
		Agricultural Process Lighting	per unit	No	Purchase and installation of new or replacement of lighting equipment to a higher efficiency than existing or designed for agriculture grow processes.	\$950	15	\$0.20 per kWh and/or \$550 per kW saved
		Auto Milker Takeoff	per unit	No	Purchase and installation of a new automatic milker takeoffs to replace pre-existing manual takeoffs on dairy milking vacuum pump systems.	\$200	10	\$975
		Dairy Scroll Compressor	per unit	No	Purchase and installation of a new or replacement of existing reciprocating compressor with a scroll compressor.	\$1,000	15	\$650
		HE Ventilation Fans	per unit	No	Purchase and installation of a new or replacement of standard efficiency ventilation fans with high efficiency ventilation fans.	\$250	15	\$640
Heat Reclaimer	per unit	No	Purchase and installation of a new heat reclaim units on dairy parlor milk refrigeration systems.	\$4,300	15	\$975		
High Volume Low Speed Fan	per ft of fan blade	No	Purchase and installation of new or replacement of conventional circulating fans with High Volume Low Speed (HVLS) fans. HVLS fans are a minimum of 16 feet long in diameter and move more cubic feet of air per watt than conventional circulating fans.	\$816	15	\$25		
Livestock Waterer	per unit	No	Purchase and installation of an energy efficient livestock waterer that is thermostatically controlled and has a minimum of two inches of factory-installed insulation.	\$510	10	\$350		

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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Dairy Vac Pump VSD Control	per unit	No	Purchase and installation of VFD and controls on dairy vacuum pumps, or the purchase of dairy vacuum pumps with variable speed capability. Pre-existing pumps with VSD's are not eligible for this measure.	\$3,400	15	\$1,500
		Low Pressure Irrigation	per unit	No	Purchase and installation of a low pressure irrigation system.	\$2,095	5	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Agricultural	per unit	No	Replacement or retrofit of existing farm type equipment or process changes or enhancements that results in electric energy savings, including construction of new facilities.	\$2,953	15	\$0.20 per kWh and/or \$550 per kW saved
		Dairy Refrigeration Tune-Up	per unit	No	Tune up of refrigeration systems for agriculture applications.	\$194	1	\$200
		Engine Block Heater Timer	per unit	No	Purchase and installation of a new engine block heater timer.	\$25	15	\$25
		Street Lighting (Tariff / Utility Owned(EMU))	per fixture	No	Replacement or new installation of Street and Area lighting equipment to a greater efficiency than existing or designed	\$173	12	\$220
		Street Lighting (Tariff / Customer Owned(MU))	per fixture	No	Replacement or new installation of Street and Area lighting equipment to a greater efficiency than existing or designed	\$173	12	\$220
	Prescriptive Other - SCI	Refrigerator Recycling - SCI	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	6	\$75
		Freezer Recycling - SCI	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	5	\$75
		Room Air Conditioner Recycling - SCI	per unit	No	Removal of an existing inefficient room air conditioner from service, prior to its natural end of life (early retirement).	\$0	4	\$50
		Dehumidifiers Recycling - SCI	per unit	No	Removal of an existing inefficient dehumidifier from service, prior to its natural end of life (early retirement).	\$0	5	\$50
		EV Charging Cord - Level 2 - SCI	per unit	No	Purchase and installation of an ENERGY STAR rated EV Charger Cord.	\$500	10	\$100
		Clothes Washer Level 1&2 - SCI	per unit	No	Purchase and installation of a clothes washer meeting or exceeding ENERGY STAR, CEE Tier 1, or CEE Tier 2 specifications, as applicable.	\$187	11	\$75
		Clothes Washer Level 3 - SCI	per unit	No	Purchase and installation of a clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$187	11	\$100
		Clothes Dryer - SCI	per unit	No	Purchase and installation of a clothes dryer meeting or exceeding ENERGY STAR specifications with moisture sensor. Heat pump type clothes dryers are eligible.	\$358	12	\$75
		Refrigerator Level 1& 2 - SCI	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR, CEE Tier 1 or CEE TIER 2 specifications, as applicable.	\$75	14	\$100
		Refrigerator Level 3 - SCI	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$75	14	\$150
		Water Heater - Heat Pump - SCI	per unit	No	Purchase and installation of new or replacement of inefficient electric water heater with a heat pump water heater with uniform energy factors meeting or exceeding the ENERGY STAR specifications. Solar water heating is also eligible.	\$651	10	\$750
		Freezer - SCI	per unit	No	Purchase and installation of a freezer meeting or exceeding ENERGY STAR specifications.	\$43	11	\$40
		Dehumidifier - SCI	per unit	No	Purchase and installation of a new dehumidifier meeting or exceeding ENERGY STAR specifications.	\$11	12	\$25
Water Cooler - SCI	per unit	No	Purchase and installation of a new water cooler meeting or exceeding ENERGY STAR specifications.	\$49	10	\$25		
Monitor - SCI	per unit	No	Purchase and installation of a new monitor meeting or exceeding ENERGY STAR specifications.	\$2	4	\$8		
Computer - SCI	per unit	No	Purchase and installation of a new computer meeting or exceeding ENERGY STAR specifications.	\$19	4	\$8		

Appendix B, Table 7: Eligible Measures

Met-Ed								
Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Small	Prescriptive Other - SCI	Uninterruptible Power Supply (UPS) - SCI	per kW rating of UPS	No	Purchase and installation of new UPS (less than 12 kW) that exceeds the minimum average efficiency standard as determined by Table 1 of the Energy Star UPS standard. Table 2 of the standard shall be used in calculating the loading of the UPS.	\$295	10	\$220
		imaging - SCI	per unit	No	Purchase and installation of a new imaging equipment meeting or exceeding ENERGY STAR specifications.	\$11	6	\$8
		Small Network - SCI	per PC controlled	No	Purchase and installation of network level software that controls desktop computers and monitors power settings with the network. Software must be capable of measuring and managing power consumption of each desktop computer and monitor. Laptops are eligible but savings assume workstation includes desktop monitor, laptop computer with laptop screen in use.	\$30	5	\$15
		Advanced Pwr Strip - SCI	per unit	No	Purchase and installation of a new Tier 1 or Tier 2 Advance Power Strip (APS)	\$34	5	\$25
	Custom - SCI	Custom - Process Improvement - SCI	per project	No	Replacement or retrofit of existing equipment or process changes or enhancements that result in the more efficient use of electrical energy.	\$8,036	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Compressed Air - SCI	per project	No	Purchase and installation of new or replacement or retrofit of existing air compressor systems, including but no limited to: new compressors, air dryers, or increased storage capacity. Other efficiency measures such as: leak repair, controls, high efficiency nozzles, piping enhancements, and no loss drains are also eligible.	\$29,430	13	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Motors - Three Phase - SCI	per hp	No	Purchase and installation of a new premium efficiency motor as a direct replacement or for new construction applications	\$13,384	15	\$50
		Custom - Refrigeration - SCI	per project	No	Purchase and installation of a new or retrofit of refrigeration measures on small commercial walk-in refrigeration and coolers, including, but not limited to: high efficiency fan motors, evaporator fan controllers, floating head pressure controls, evaporator coil defrost controls and variable speed compressor motors.	\$57,268	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Equipment/Servers - SCI	per project	No	Purchase and installation new or retrofit of data center measures (servers, UPS, HVAC, etc.) and the optimization of those systems to decrease energy usage.	\$10,820	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - HVAC/Chlr/Cntrlr - SCI	per project	No	Purchase and installation of HVAC controls/controllers that optimizes ventilation and economization control schemes of a building's HVAC system based on occupancy or sensor level inputs.	\$22,015	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - VFDs < 10HP - SCI	per hp	No	Purchase and installation of a new VFD for an existing motor (less than or equal to 10 hp) driving fans, pumps and other suitable applications. VFD retrofits are not eligible.	\$1,774	15	\$150
		Custom - VFDs > 10 HP - SCI	per hp	No	Purchase and installation of a new VFD for an existing motor (greater than 10 hp) driving fans, pumps and other suitable applications. VFD retrofits are not eligible.	\$9,975	15	\$100
		Custom - Bldg Improvements - SCI	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to: wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$14,733	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - New Construction - SCI	per project	No	Implementation of design principles to reduce building electric consumption using current ASHRAE 90.1 or IECC baselines, as applicable.	\$9,603	15	\$0.20 per kWh and/or \$550 per kW saved
	Custom - Audit & Education - SCI	per Audit	No	Comprehensive Energy Audit for commercial/industrial facilities or manufacturing processes recommending installation of efficient equipment, building shell/envelop improvements, manufacturing process changes, building operating changes, or other energy efficiency improvements. Audit must meet minimum audit requirements for buildings or for process equipment.	\$0	0	\$0.20 per kWh and/or \$550 per kW saved towards cost of audit	
	Energy Management - SCI	Building Tune Up - SCI	per project	No	Portfolio of measures and services that focus on the adjustment, maintenance and improvement of building systems to achieve maximum operating efficiency, including the installation of energy efficiency measures.	\$45,802	15	Up to 80% of the project cost
		Virtual/Meter Data Commissioning - SCI	per project	No	Assessment of energy usage using meter data and analytics, engineering and building modeling to determine energy saving strategies for the upgrade and/or replacement of building systems including, but not limited to: lighting, HVAC, refrigeration, compressed air and other operational energy savings. Additionally, the measure will utilize pre and post enrollment meter usage data to further evaluate building energy savings.	\$9,778	15	\$0.20 per kWh and/or \$550 per kW saved
		Retrocommissioning - SCI	per project	No	Adjusting electrical, electro-mechanical, mechanical and control system set points to improve system performance to existing building conditions and use, including the installation of energy savings measures and implementation of energy savings strategies identified through facility audit or building operations training.	\$28,634	15	\$0.20 per kWh and/or \$550 per kW saved
		Building Operations Training - SCI	per unit	No	Obtain Building Operations Certification (BOC) by attending a certified training program or other training programs as related to the efficient design, operations and maintenance of buildings.	\$5,000	5	Up to 70% of the cost to attend qualified BOC training course and NTE \$1000 per person.
		Energy Consultation - SCI	N/A	No	N/A	\$0	0	NA
Audits - SCI		per Audit	No	Comprehensive Energy Audit for commercial/industrial facilities or manufacturing processes recommending installation of efficient equipment, building shell/envelop improvements, manufacturing process changes, building operating changes, or other energy efficiency improvements. Audit must meet minimum audit requirements for buildings or for process equipment.	\$0	0	\$0.20 per kWh and/or \$550 per kW saved towards cost of audit	
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	MF - Tenant - DI - LCI	per tenant space	No	Multi-Family Tenant Space Audit w/ direct install measures.	\$200	15	Up to \$250 for the cost of an audit with direct install measures
		MF - Tenant - Prescriptive - LCI	per Avg Appliance	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$207	12	Same value as incentives offered through the Residential programs.

Appendix B, Table 7: Eligible Measures

Met-Ed									
Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit)	1 2 3 4
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	MF - Tenant - Custom - LCI	per unit	No	Installation of Custom energy efficiency measures including, but not limited to: lighting, HVAC, appliances, etc.	\$269	15	Same value as incentives offered through the Residential programs.	
		MF - Common - Prescriptive - LCI	per avg light	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$82	14	Same value as incentives offered through the Commercial & Industrial programs.	
		MF - Common - Custom - LCI	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$2,947	15	Same value as incentives offered through the Commercial & Industrial programs.	
		MF - Common - DI - LCI	per common space	No	Multi-Family Common Space Audit w/ direct install measures.	\$1,477	15	Up to 80% of the project cost	
	Prescriptive - LCI	Air Conditioning - Level 1 <=5.4 Tn - LCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) SEER >= 16 and EER>=13. Includes Variable Refrigerant Flow (VRF) systems	\$1,358	15	\$200	
		Air Conditioning - Level 1 >5.4 < 20 Tn - LCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) exceeding applicable standard by 5%. Includes Variable Refrigerant Flow (VRF) systems.	\$1,014	15	\$150	
		Air Conditioning - Level 1 >=20 Tn - LCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) exceeding applicable standard by 5%. Includes Variable Refrigerant Flow (VRF) systems.	\$99	15	\$120	
		Heat Pump - Level 1 <=5.4 Tn - LCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System HP, HSPF >= 9 (split), HSPF>=8.2 (single package).	\$1,358	15	\$200	
		Heat Pump - Water & GeoT - ES Tier 3 - LCI	per ton	No	Purchase and installation of a new or replacement groundwater source, water source or ground source heat pump system that meets or exceeds the energy efficiency requirements of the applicable standard by 5%. The following retrofit scenarios are considered: • Ground source heat pumps for existing or new non-residential HVAC applications • Groundwater source heat pumps for existing or new non-residential HVAC applications • Water source heat pumps for existing or new non-residential HVAC applications	\$8,802	15	\$300	
		Ductless Mini-Split HP - Level 3 - LCI	per ton	No	Purchase and installation of a new ENERGY STAR Ductless Mini Split HP less than 5.4 tons, SEER >=20, EER >=12.5 EER, and HSPF>=10	\$498	15	\$300	
		PTAC - LCI	per ton	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$363	15	\$150	
		PTHP - LCI	per ton	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$363	15	\$150	
		Room Air Conditioner- LCI	per ton	No	Purchase and installation of new unit meeting or exceeding the ENERGY STAR standard.	\$0	9	\$150	
		Smart Thermostat - Rebate - LCI	per unit	No	Purchase and installation of a new smart thermostat that meets ENERGY STAR certification.	\$204	8	\$150	
		HVAC - Custom - LCI	per project	No	Purchase and installation of new high-efficiency HVAC equipment in place of standard efficiency equipment. Also includes the purchase and installation of HVAC controls/controllers that optimizes ventilation and economization control schemes of a building's HVAC system based on occupancy or sensor level inputs.	\$65,998	15	\$0.20 per kWh and/or \$550 per kW saved	
		Circulating Pump (Mid Strm) - LCI	per unit	No	Purchase and installation of a new ECM or BPM circulator pump, rip single speed motor for space heating in a commercial application.	\$38	15	\$150	
		HVAC - Maintenance - LCI	per unit	No	Maintenance services applicable to C&I customers for documented tune-ups of packaged and split systems up to 20 Tons.	\$175	10	\$250	
		Furnace Fan (Retrofit or New to ECM) - LCI	per unit	No	Purchase and installation of a high efficiency brushless permanent magnet fan motor (BPM or ECM) to replace a permanent split capacitor (PSC) motor.	\$242	15	\$150	
		Lighting Controls (Daylight & Occupancy) - LCI	per sensor	No	Purchase and installation of non-networked lighting controls including, but not limited to: daylight On/Off, dimming, occupancy sensors (wall plate, remote & fixture mounted), time clocks and switching controls.	\$80	8	\$50	
		Linear Fluorescent - LCI	per fixture	No	Purchase and installation of high performance T8 lamps replacing existing T8 lamps, or higher efficiency than existing or designed.	\$6	10	\$0.20 per kWh and/or \$550 per kW saved	
LED Linear - LCI	per fixture	No	Purchase and installation of linear LED lighting equipment to a higher efficiency than existing or designed. Must meet ENERGY STAR or DLC, as applicable.	\$31	15	\$0.20 per kWh and/or \$550 per kW saved			
LED Channel Signage - LCI	per lin ft	No	Replacement, retrofit or new installation of channel letter signs w/ LED technology. Must meet ENERGY STAR or DLC, as applicable.	\$35	15	\$3			
Exit Sign - LCI	per sign	No	Replacement or new installation of a lighting fixture wired for exclusive use with LED lamps installed in an exterior setting. Must meet ENERGY STAR or DLC, as applicable.	\$18	15	\$23			

Appendix B, Table 7: Eligible Measures

Met-Ed								
Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Large	Prescriptive - LCI	LED Fixture External - LCI	per fixture	No	Replacement or new installation of a lighting fixture wired for exclusive use with LED lamps installed in an exterior setting. Must meet ENERGY STAR or DLC, as applicable.	\$203	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Fixture Internal - LCI	per fixture	No	Replacement or new installation of a lighting fixture wired for exclusive use with LED lamps installed in an interior setting. Must meet ENERGY STAR or DLC, as applicable.	\$40	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Lamp - LCI	per unit	No	Purchase and installation of an ENERGY STAR LED lamps, including A-Line and specialty lamps.	\$5	14	\$20
		Lighting - Other - LCI	per project	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$6,600	15	\$0.20 per kWh and/or \$550 per kW saved
		Street & Area Lighting (Customer Owned) - LCI	per fixture	No	Purchase and installation of new lighting equipment for Street and Area lighting applications to a greater efficiency than existing or designed	\$173	12	\$220
		LED Reach in Refrig / Frizer Light - LCI	per door	No	Purchase and installation of LED luminaires in vertical and horizontal refrigerated display cases replacing linear fluorescent lamp technology. Must meet ENERGY STAR or DLC, as applicable.	\$59	8	\$75
		Lighting - Custom - LCI	per project	No	Replacement or new installation of lighting to a higher efficiency than existing or designed lighting equipment. Specialty lighting applications may be eligible, but will require approval by the Company.	\$6,600	15	\$0.20 per kWh and/or \$550 per kW saved
		Network Lighting Control - LCI	per sq ft of Lighting Controlled	No	Purchase and installation of a networked lighting control system by applying, but not limited to: occupancy sensors, photo sensors, and dimming controls where the system must dim or turn off individual fixtures based on local occupancy and/or light levels. The control system must include luminaire-level lighting control (LLLC) that can switch lights on and off based on occupancy and is capable of full-range dimming based on local light levels.	\$1	8	\$0.60 Per Watt Controlled
		Linear Lamp - MS - LCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$7	15	\$0.20 per kWh and/or \$550 per kW saved
		High/Low Bay Lamp - MS - LCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$162	12	\$0.20 per kWh and/or \$550 per kW saved
		LED Fixture - MS - LCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$72	15	\$0.20 per kWh and/or \$550 per kW saved
		ECM Evap Fan Motor - LCI	per unit	No	Purchase and installation of an ECM motor to replace a permanent split capacitor or shaded pole motor in a commercial refrigeration unit.	\$227	15	\$75
		Evap Fan Controls - LCI	per unit	No	Purchase and installation of ON/OFF controls or multispeed controls for an uncontrolled ECM or permanent split capacitor or shaded pole motor in a commercial refrigeration unit.	\$532	10	\$200
		Refrigerator - Reach In - LCI	per unit	No	Purchase and installation of a new high efficiency packaged commercial refrigerator meeting ENERGY STAR.	\$729	12	\$200
		Freezer - Reach In - LCI	per unit	No	Purchase and installation of a new high efficiency packaged commercial freezer meeting ENERGY STAR.	\$977	12	\$200
		Refrigerated Case Cover - LCI	per lin ft	No	Purchase and installation of night covers on existing open type refrigerated display cases.	\$38	5	\$22
		Anti Sweat Heater Control - LCI	per door	No	Purchase and installation of anti-sweat door heaters on glass refrigerator or freezer doors with either ON/OFF controls or micropulse controls.	\$418	12	\$60
		Strip Curtain - LCI	per sq ft	No	Purchase and installation of strip curtains applied to walk in cooler or freezer doors; curtains must be at least 0.06" thick. Low temp strip curtains must be used on low temp applications.	\$10	4	\$3
		Ice Machine - LCI	per unit	No	Purchase and installation of new ENERGY STAR qualified ice machine.	\$378	8	\$590 0-500 lbs \$960 501-1000 lbs \$1100 over 1000 lbs
		Beverage Vending Machine - Controls - LCI	per unit	No	Retrofit controls for a non ENERGY STAR rated vending machine.	\$180	5	\$125
Beverage Vending Machine - Energy Star - LCI	per unit	No	The purchase and installation of an ENERGY STAR certified beverage vending machine.	\$180	5	\$150		
Steam Cooker - LCI	per unit	No	Purchase and installation of new ENERGY STAR steam cooker.	\$351	12	\$300 - 3 pan \$400 - 4 pan \$500 - 5 pan \$600 - 6 pan		
Fryer - LCI	per unit	No	Purchase and installation of new ENERGY STAR fryer.	\$1,038	12	\$500		

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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Large	Prescriptive - LCI	Griddle - LCI	per unit	No	Purchase and installation of new a ENERGY STAR griddle.	\$950	12	\$500
		Hot Food Holding Cabinet - LCI	per unit	No	Purchase and installation of new hot food holding cabinet meeting or exceeding ENERGY STAR standards.	\$421	12	\$500 - full size \$375 - 3/4 size \$225 - 1/2 size
		Combination Oven - LCI	per unit	No	Purchase and installation of new Combination Oven meeting or exceeding ENERGY STAR standards.	\$2,512	12	\$1,500
		Convection Oven - LCI	per unit	No	Purchase and installation of new Convection Oven meeting or exceeding ENERGY STAR standards.	\$539	12	\$500
		Dishwasher - LCI	per unit	No	Purchase and installation of a clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$882	10	\$500
		Induction Warmer/Rethernalizer Well - LCI	per unit	No	Purchase and installation of a energy efficient Rethernalizer & Food Warmers.	\$500	15	\$200
		Coffee Brewer - LCI	per unit	No	Purchase and installation of an ENERGY STAR Type II small, medium, or large coffee brewer.	\$200	15	\$100
		Pre-Rinse Sprayer - LCI	per unit	No	Purchase and installation of a new sprayer replacing an existing unit that use 1.6 GPM or less, on/off squeeze lever, and cleanability of performance of at least 26 seconds. Electric water heating only.	\$6	8	\$55
	Prescriptive Other - LCI	Refrigerator Recycling - LCI	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	6	\$75
		Freezer Recycling - LCI	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	5	\$75
		Room Air Conditioner Recycling - LCI	per unit	No	Removal of an existing inefficient room air conditioner from service, prior to its natural end of life (early retirement).	\$0	4	\$50
		Dehumidifiers Recycling - LCI	per unit	No	Removal of an existing inefficient room air conditioner from service, prior to its natural end of life (early retirement).	\$0	5	\$50
		EV Charging Cord - Level 2 - LCI	per unit	No	Purchase and installation of an ENERGY STAR rated EV Charger Cord.	\$500	10	\$100
		Clothes Washer Level 1&2 - LCI	per unit	No	Purchase and installation of a clothes washer meeting or exceeding ENERGY STAR, CEE Tier 1, or CEE Tier 2 specifications, as applicable.	\$187	11	\$75
		Clothes Washer Level 3 - LCI	per unit	No	Purchase and installation of a clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$187	11	\$100
		Clothes Dryer - LCI	per unit	No	Purchase and installation of a clothes dryer meeting or exceeding ENERGY STAR specifications with moisture sensor. Heat pump type clothes dryers are eligible.	\$358	12	\$75
		Refrigerator Level 1& 2 - LCI	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR, CEE Tier 1 or CEE TIER 2 specifications, as applicable.	\$75	14	\$100
		Refrigerator Level 3 - LCI	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$75	14	\$150
		Water Heater - Heat Pump - LCI	per unit	No	Purchase and installation of new or replacement of inefficient electric water heater with a heat pump water heater with uniform energy factors meeting or exceeding the ENERGY STAR specifications. Solar water heating is also eligible.	\$651	10	\$750
		Freezer - LCI	per unit	No	Purchase and installation of a freezer meeting or exceeding ENERGY STAR specifications.	\$43	11	\$40
Dehumidifier - LCI	per unit	No	Purchase and installation of a new dehumidifier meeting or exceeding ENERGY STAR specifications.	\$11	12	\$25		
Water Cooler - LCI	per unit	No	Purchase and installation of a new water cooler meeting or exceeding ENERGY STAR specifications.	\$49	10	\$25		
Monitor - LCI	per unit	No	Purchase and installation of a new monitor meeting or exceeding ENERGY STAR specifications.	\$2	4	\$8		

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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1,2,3,4}
C&I Energy Solutions for Business Program - Large	Prescriptive Other - LCI	Computer - LCI	per unit	No	Purchase and installation of a new computer meeting or exceeding ENERGY STAR specifications.	\$19	4	\$8
		Uninterruptible Power Supply (UPS) - LCI	per kW rating of UPS	No	Purchase and installation of new UPS (less than 12 kW) that exceeds the minimum average efficiency standard as determined by Table 1 of the Energy Star UPS standard. Table 2 of the standard shall be used in calculating the loading of the UPS.	\$295	10	\$220
		Imaging - LCI	per unit	No	Purchase and installation of a new imaging equipment meeting or exceeding ENERGY STAR specifications.	\$11	6	\$8
		Small Network - LCI	per PC controlled	No	Purchase and installation of network level software that controls desktop computers and monitors power settings with the network. Software must be capable of measuring and managing power consumption of each desktop computer and monitor. Laptops are eligible but savings assume workstation includes desktop monitor, laptop computer with laptop screen in use.	\$30	5	\$15
		Advanced Pwr Strip - LCI	per unit	No	Purchase and installation of a new Tier 1 or Tier 2 Advance Power Strip (APS)	\$34	5	\$25
	Custom - LCI	Custom - Process Improvement - LCI	per project	No	Replacement or retrofit of existing equipment or process changes or enhancements that result in the more efficient use of electrical energy.	\$59,132	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Compressed Air - LCI	per project	No	Purchase and installation of new or replacement or retrofit of existing air compressor systems, including but not limited to: new compressors, air dryers, or increased storage capacity. Other efficiency measures such as: leak repair, controls, high efficiency nozzles, piping enhancements, and no loss drains are also eligible.	\$80,907	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Motors - Three Phase - LCI	per hp	No	Purchase and installation of a new premium efficiency motor as a direct replacement or for new construction applications	\$81,115	15	\$50
		Custom - Refrigeration - LCI	per project	No	Purchase and installation of a new or retrofit of refrigeration measures on small commercial walk-in refrigeration and coolers, including, but not limited to: high efficiency fan motors, evaporator fan controllers, floating head pressure controls, evaporator coil defrost controls and variable speed compressor motors.	\$76,149	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Equipment/Servers - LCI	per project	No	Purchase and installation new or retrofit of data center measures (servers, UPS, HVAC, etc.) and the optimization of those systems to decrease energy usage.	\$54,100	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - HVAC/Chlr/Cntrlis - LCI	per project	No	Purchase and installation of HVAC controls/controllers that optimizes ventilation and economization control schemes of a building's HVAC system based on occupancy or sensor level inputs.	\$131,997	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - VFDs < 10HP - LCI	per hp	No	Purchase and installation of a new VFD for an existing motor (less than or equal to 10 hp) driving fans, pumps and other suitable applications. VFD retrofits are not eligible.	\$1,774	15	\$150
		Custom - VFDs > 10 HP - LCI	per hp	No	Purchase and installation of a new VFD for an existing motor (greater than 10 hp) driving fans, pumps and other suitable applications. VFD retrofits are not eligible.	\$9,975	15	\$100
		Custom - Bldg Improvements - LCI	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to: wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$14,733	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - New Construction - LCI	per project	No	Implementation of design principles to reduce building electric consumption using current ASHRAE 90.1 or IECC baselines, as applicable.	\$16,931	15	\$0.20 per kWh and/or \$550 per kW saved
	Custom - Audit & Education - LCI	per Audit	No	Comprehensive Energy Audit for commercial/industrial facilities or manufacturing processes recommending installation of efficient equipment, building shell/envelop improvements, manufacturing process changes, building operating changes, or other energy efficiency improvements. Audit must meet minimum audit requirements for buildings or for process equipment.	\$0	1	\$0.20 per kWh and/or \$550 per kW saved towards cost of audit	
	Energy Management - LCI	Building Tune Up - LCI	Co Assumption	No	Portfolio of measures and services that focus on the adjustment, maintenance and improvement of building systems to achieve maximum operating efficiency, including the installation of energy efficiency measures.	\$176,573	5	Up to 80% of the project cost
		Virtual/Meter Data Commissioning - LCI	per project	No	Assessment of energy usage using meter data and analytics, engineering and building modeling to determine energy saving strategies for the upgrade and/or replacement of building systems including, but not limited to: lighting, HVAC, refrigeration, compressed air and other operational energy savings. Additionally, the measure will utilize pre and post enrollment meter usage data to further evaluate building energy savings.	\$9,778	15	\$0.20 per kWh and/or \$550 per kW saved
		Retrocommissioning - LCI	per project	No	Adjusting electrical, electro-mechanical, mechanical and control system set points to improve system performance to existing building conditions and use, including the installation of energy savings measures and implementation of energy savings strategies identified through facility audit or building operations training.	\$159,750	15	\$0.20 per kWh and/or \$550 per kW saved
		Building Operations Training - LCI	per unit	No	Obtain Building Operations Certification (BOC) by attending a certified training program or other training programs as related to the efficient design, operations and maintenance of buildings.	\$5,000	5	Up to 70% of the cost to attend qualified BOC training course and NTE \$1000 per person.
Energy Consultation - LCI		N/A	No	N/A	\$0	0	NA	
Audits - LCI		per Audit	No	Comprehensive Energy Audit for commercial/industrial facilities or manufacturing processes recommending installation of efficient equipment, building shell/envelop improvements, manufacturing process changes, building operating changes, or other energy efficiency improvements. Audit must meet minimum audit requirements for buildings or for process equipment.	\$0	1	\$0.20 per kWh and/or \$550 per kW saved towards cost of audit	

¹ All values listed above for incentives are "Up to Values"

² The Company may provide tiered rebate amounts within the incentive ranges listed above for qualifying products that have varying characteristics (e.g. size, features, etc.)

³ The Company may provide prescriptive rebates in lieu of the performance incentives listed above for certain measures and/or applications where the prescriptive value is within the equivalent performance incentive range.

⁴ The Company may establish incentive tiers and/or incentive block structures within the performance incentives listed above for different end use technology or sub-measures (lighting, HVAC, etc.)

Appendix B, Table 8: Estimated Savings and Participation

Met-Ed

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
Energy Efficient Products Program	Appliance Recycling	Freezer Recycling	Energy Savings (MWh/year)	570	570	570	570	570	2,852
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.5
			Projected Participation	825	825	825	825	825	4,125
		Refrigerator Recycling	Energy Savings (MWh/year)	3,114	3,114	3,114	3,114	3,114	15,572
			Demand Reduction (MW)	0.6	0.6	0.6	0.6	0.6	2.8
			Projected Participation	3,299	3,299	3,299	3,299	3,299	16,495
		Room Air Conditioner Recycling	Energy Savings (MWh/year)	55	55	55	55	55	274
			Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	0.9
			Projected Participation	483	483	483	483	483	2,415
		Dehumidifier Recycling	Energy Savings (MWh/year)	158	158	158	158	158	788
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.3
			Projected Participation	315	315	315	315	315	1,575
	Appliance Rebate	Clothes Washer - Level 1	Energy Savings (MWh/year)	76	76	76	76	76	381
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	650	650	650	650	650	3,250
		Clothes Washer - Level 2	Energy Savings (MWh/year)	108	108	108	108	108	538
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	650	650	650	650	650	3,250
		Clothes Washer - Level 3	Energy Savings (MWh/year)	93	93	93	93	93	463
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	520	520	520	520	520	2,600
		Refrigerator - Level 1	Energy Savings (MWh/year)	55	55	55	55	55	277
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1,200	1,200	1,200	1,200	1,200	6,000
		Refrigerator - Level 2	Energy Savings (MWh/year)	53	53	53	53	53	267
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	600	600	600	600	600	3,000
		Refrigerator - Level 3	Energy Savings (MWh/year)	36	36	36	36	36	178
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	300	300	300	300	300	1,500
	Freezer	Energy Savings (MWh/year)	12	12	12	12	12	58	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	320	320	320	320	320	1,600	
	Clothes Dryer	Energy Savings (MWh/year)	34	34	34	34	34	172	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1,820	1,820	1,820	1,820	1,820	9,100	
	Air Purifier / Cleaner	Energy Savings (MWh/year)	173	173	173	173	173	863	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
		Projected Participation	220	220	220	220	220	1,100	
	Room Air Conditioner - Level 1	Energy Savings (MWh/year)	32	32	32	32	32	162	
		Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.3	
		Projected Participation	1,600	1,600	1,600	1,600	1,600	8,000	
	Room Air Conditioner - Level 2	Energy Savings (MWh/year)	32	32	32	32	32	162	
		Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.3	
		Projected Participation	1,600	1,600	1,600	1,600	1,600	8,000	
	Dehumidifier	Energy Savings (MWh/year)	1,055	1,055	1,055	1,055	1,055	5,275	
		Demand Reduction (MW)	0.3	0.3	0.3	0.3	0.3	1.4	
		Projected Participation	4,400	4,400	4,400	4,400	4,400	22,000	
	Water Heater	Energy Savings (MWh/year)	1,055	1,055	1,055	1,055	1,055	5,273	
		Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.4	
		Projected Participation	726	726	726	726	726	3,630	
	Pool Pump Variable Speed	Energy Savings (MWh/year)	376	376	376	376	376	1,880	
		Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.5	
		Projected Participation	232	232	232	232	232	1,160	
	Dishwasher	Energy Savings (MWh/year)	3	3	3	3	3	13	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	100	100	100	100	100	500	
	Water Cooler	Energy Savings (MWh/year)	0	0	0	0	0	1	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1	1	1	1	1	5	
	EV Charging Cord - Level 2 - Res	Energy Savings (MWh/year)	0	0	0	0	0	2	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	11	11	11	11	11	55	
	Smart Thermostat - Aplncls	Energy Savings (MWh/year)	197	197	197	197	197	986	
		Demand Reduction (MW)	-	-	-	-	-	-	
		Projected Participation	857	857	857	857	857	4,285	
	Residential Occupancy Sensor	Energy Savings (MWh/year)	0	0	0	0	0	0	
		Demand Reduction (MW)	-	-	-	-	-	-	
		Projected Participation	1	1	1	1	1	5	
	Ceiling Fan	Energy Savings (MWh/year)	24	24	24	24	24	119	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	500	500	500	500	500	2,500	
	Consumer Electronics	Monitor	Energy Savings (MWh/year)	34	34	34	34	34	170
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1,240	1,240	1,240	1,240	1,240	6,200
		Computer	Energy Savings (MWh/year)	40	40	40	40	40	200
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	295	295	295	295	295	1,475
		Imaging	Energy Savings (MWh/year)	129	129	129	129	129	644
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	3,150	3,150	3,150	3,150	3,150	15,750
		Smart Strip Plug Outlet	Energy Savings (MWh/year)	60	60	60	60	60	299
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	457	457	457	457	457	2,285
	TV	Energy Savings (MWh/year)	139	139	139	139	139	696	
		Demand Reduction (MW)	0.4	0.4	0.4	0.4	0.4	2.1	
		Projected Participation	1,600	1,600	1,600	1,600	1,600	8,000	
	Sound Bar	Energy Savings (MWh/year)	0	0	0	0	0	0	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1	1	1	1	1	5	
	Smart Home	Energy Savings (MWh/year)	0	0	0	0	0	0	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1	1	1	1	1	5	

Appendix B, Table 8: Estimated Savings and Participation

Met-Ed									
Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
Energy Efficient Products Program	HVAC	Heat Pump - Level 2	Energy Savings (MWh/year)	712	712	712	712	712	3,560
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	250	250	250	250	250	1,250
		Heat Pump - Level 3	Energy Savings (MWh/year)	158	158	158	158	158	789
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	45	45	45	45	45	225
		Central Air Conditioner - Level 2	Energy Savings (MWh/year)	53	53	53	53	53	266
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	150	150	150	150	150	750
		Central Air Conditioner - Level 3	Energy Savings (MWh/year)	12	12	12	12	12	62
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	25	25	25	25	25	125
		Ductless Mini-Split Heat Pump - Level 3	Energy Savings (MWh/year)	204	204	204	204	204	1,019
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	320	320	320	320	320	1,600
		PTAC - Level 2 - Multi Family	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		PTHP - Level 2 - Multi Family	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Heat Pump - Water & GeoT - ES Tier 3	Energy Savings (MWh/year)	68	68	68	68	68	340
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	20	20	20	20	20	100
		Furnace Fan (Retrofit or New to ECM)	Energy Savings (MWh/year)	5	5	5	5	5	27
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	40	40	40	40	40	200
		Smart Thermostat - HVAC	Energy Savings (MWh/year)	26	26	26	26	26	132
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	120	120	120	120	120	600
		HVAC - Custom	Energy Savings (MWh/year)	7	7	7	7	7	33
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	75	75	75	75	75	375
		Circulating Pump	Energy Savings (MWh/year)	3	3	3	3	3	14
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	16	16	16	16	16	80
		HE Bathroom Fans	Energy Savings (MWh/year)	4	4	4	4	4	19
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	100	100	100	100	100	500
		HVAC Quality Install	Energy Savings (MWh/year)	0	0	0	0	0	0
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Ductless Mini-Split A/C	Energy Savings (MWh/year)	9	9	9	9	9	47
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	60	60	60	60	60	300
		Heat Pump (Air-Wtr) w Domestic Hot Water	Energy Savings (MWh/year)	4	4	4	4	4	18
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
Projected Participation	1		1	1	1	1	5		
Energy Efficient Homes Program	Comprehensive Audits	Comprehensive Audit	Energy Savings (MWh/year)	88	175	175	175	175	790
			Demand Reduction (MW)	0.0	0.1	0.1	0.1	0.1	0.4
			Projected Participation	100	200	200	200	200	900
	Multi Family - Res	MF - Tenant - DI - Res	Energy Savings (MWh/year)	11	23	23	23	23	101
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	50	100	100	100	100	450
		MF - Tenant - Prescriptive - Res	Energy Savings (MWh/year)	2	4	4	4	4	18
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	25	50	50	50	50	225
		MF - Tenant - Custom - Res	Energy Savings (MWh/year)	40	81	81	81	81	364
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	147	294	294	294	294	1,325
		MF - Common - Prescriptive - Res	Energy Savings (MWh/year)	1	1	1	1	1	5
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	2	4	4	4	4	18
	MF - Common - Custom - Res	Energy Savings (MWh/year)	10	20	20	20	20	88	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1	2	2	2	2	9	
	MF - Common - DI - Res	Energy Savings (MWh/year)	36	72	72	72	72	326	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	7	14	14	14	14	63	
	School Education	School Education	Energy Savings (MWh/year)	908	908	908	908	908	4,538
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.5
			Projected Participation	4,900	4,900	4,900	4,900	4,900	24,500
	EE Kits	Energy Efficiency Measures	Energy Savings (MWh/year)	9,950	9,950	9,950	9,950	9,950	49,750
			Demand Reduction (MW)	1.2	1.2	1.2	1.2	1.2	5.9
			Projected Participation	50,000	50,000	50,000	50,000	50,000	250,000
	Behavioral	On-Line Audit	Energy Savings (MWh/year)	1,170	1,170	1,170	1,170	1,170	5,850
			Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	1.0
			Projected Participation	9,000	9,000	9,000	9,000	9,000	45,000
		Behavioral 2021	Energy Savings (MWh/year)	1,653	-	-	-	-	1,653
			Demand Reduction (MW)	0.3	-	-	-	-	0.3
			Projected Participation	26,796	-	-	-	-	26,796
		Behavioral 2022	Energy Savings (MWh/year)	-	3,898	-	-	-	3,898
			Demand Reduction (MW)	-	0.7	-	-	-	0.7
			Projected Participation	-	50,895	-	-	-	50,895
		Behavioral 2023	Energy Savings (MWh/year)	-	-	3,637	-	-	3,637
			Demand Reduction (MW)	-	-	0.7	-	-	0.7
			Projected Participation	-	-	50,895	-	-	50,895
		Behavioral 2024	Energy Savings (MWh/year)	-	-	-	3,323	-	3,323
			Demand Reduction (MW)	-	-	-	0.6	-	0.6
			Projected Participation	-	-	-	50,895	-	50,895
		Behavioral 2025	Energy Savings (MWh/year)	-	-	-	-	2,958	2,958
			Demand Reduction (MW)	-	-	-	-	0.5	0.5
			Projected Participation	-	-	-	-	50,895	50,895

Appendix B, Table 8: Estimated Savings and Participation

Met-Ed											
Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total		
Energy Efficient Homes Program	New Homes	NC - Townhouse and duplex units	Energy Savings (MWh/year)	300	300	300	300	300	1,502		
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.6		
			Projected Participation	179	179	179	179	179	895		
		NC - Two-on-Two condominium units	Energy Savings (MWh/year)	1	1	1	1	1	7		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	1	1	1	1	1	5		
		NC - Single-family detached units	Energy Savings (MWh/year)	1,395	1,395	1,395	1,395	1,395	6,977		
			Demand Reduction (MW)	0.6	0.6	0.6	0.6	0.6	3.1		
			Projected Participation	502	502	502	502	502	2,510		
		NC - Multi Family Low Rise	Energy Savings (MWh/year)	1	1	1	1	1	7		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	1	1	1	1	1	5		
		NC - Manufactured Housing	Energy Savings (MWh/year)	16	16	16	16	16	78		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	9	9	9	9	9	45		
		NC - Multi Family High Rise	Energy Savings (MWh/year)	1	1	1	1	1	7		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	1	1	1	1	1	5		
		Low Income Energy Efficiency Program	LI - Appliances	Weatherization (WARM PLUS)	Energy Savings (MWh/year)	357	357	357	357	357	1,783
					Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
					Projected Participation	368	368	368	368	368	1,841
				WARM Extra Measures	Energy Savings (MWh/year)	481	481	481	481	481	2,404
					Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
					Projected Participation	808	808	808	808	808	4,040
Freezer Recycling - LI	Energy Savings (MWh/year)			114	114	114	114	114	570		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation			165	165	165	165	165	825		
Refrigerator Recycling - LI	Energy Savings (MWh/year)			623	623	623	623	623	3,115		
	Demand Reduction (MW)			0.1	0.1	0.1	0.1	0.1	0.6		
	Projected Participation			660	660	660	660	660	3,300		
Room Air Conditioner Recycling - LI	Energy Savings (MWh/year)			9	9	9	9	9	44		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation			77	77	77	77	77	385		
Dehumidifier Recycling - LI	Energy Savings (MWh/year)			27	27	27	27	27	133		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation			53	53	53	53	53	265		
Clothes Washer - Level 1	Energy Savings (MWh/year)			11	11	11	11	11	53		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation			90	90	90	90	90	450		
Clothes Washer - Level 2	Energy Savings (MWh/year)			0	0	0	0	0	1		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation			1	1	1	1	1	5		
Clothes Washer - Level 3	Energy Savings (MWh/year)	0	0	0	0	0	1				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	1	1	1	1	1	5				
Refrigerator - Level 1	Energy Savings (MWh/year)	3	3	3	3	3	14				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	60	60	60	60	60	300				
Refrigerator - Level 2	Energy Savings (MWh/year)	0	0	0	0	0	0				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	1	1	1	1	1	5				
Refrigerator - Level 3	Energy Savings (MWh/year)	0	0	0	0	0	1				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	1	1	1	1	1	5				
Freezer	Energy Savings (MWh/year)	0	0	0	0	0	1				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	8	8	8	8	8	40				
Clothes Dryer	Energy Savings (MWh/year)	1	1	1	1	1	3				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	35	35	35	35	35	175				
Air Purifier / Cleaner	Energy Savings (MWh/year)	2	2	2	2	2	8				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	2	2	2	2	2	10				
Room Air Conditioner - Level 1	Energy Savings (MWh/year)	0	0	0	0	0	2				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	20	20	20	20	20	100				
Room Air Conditioner - Level 2	Energy Savings (MWh/year)	0	0	0	0	0	0				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	1	1	1	1	1	5				
Dehumidifier	Energy Savings (MWh/year)	5	5	5	5	5	24				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	20	20	20	20	20	100				
Water Heater	Energy Savings (MWh/year)	-1	-1	-1	-1	-1	-7				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	-1	-1	-1	-1	-1	-5				
Pool Pump-Variable-Speed	Energy Savings (MWh/year)	-2	-2	-2	-2	-2	-8				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	-1	-1	-1	-1	-1	-5				
Dishwasher	Energy Savings (MWh/year)	0	0	0	0	0	0				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	1	1	1	1	1	5				
Water Cooler	Energy Savings (MWh/year)	0	0	0	0	0	4				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	-1	-1	-1	-1	-1	-5				
EV-Charging Cord - Level 2 - Res	Energy Savings (MWh/year)	0	0	0	0	0	0				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	-1	-1	-1	-1	-1	-5				
Smart Thermostat - ApIncs	Energy Savings (MWh/year)	30	30	30	30	30	148				
	Demand Reduction (MW)	-	-	-	-	-	-				
	Projected Participation	129	129	129	129	129	645				
LI - School Education	School Education - LI	Energy Savings (MWh/year)	222	222	222	222	222	1,109			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1				
	Projected Participation	1,050	1,050	1,050	1,050	1,050	5,250				
LI - EE Kits	Energy Efficiency Measures - LI	Energy Savings (MWh/year)	1,688	1,688	1,688	1,688	1,688	8,438			
	Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	1.1				
	Projected Participation	7,500	7,500	7,500	7,500	7,500	37,500				

Appendix B, Table 8: Estimated Savings and Participation

Met-Ed

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total	
Low Income Energy Efficiency Program	LI - Behavioral	On-Line Audit - LI	Energy Savings (MWh/year)	89	89	89	89	89	444	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
			Projected Participation	683	683	683	683	683	3,415	
		Behavioral 2021 - LI	Energy Savings (MWh/year)	531	-	-	-	-	-	531
			Demand Reduction (MW)	0.1	-	-	-	-	-	0.1
			Projected Participation	8,265	-	-	-	-	-	8,265
		Behavioral 2022 - LI	Energy Savings (MWh/year)	-	1,218	-	-	-	-	1,218
			Demand Reduction (MW)	-	0.2	-	-	-	-	0.2
			Projected Participation	-	15,747	-	-	-	-	15,747
		Behavioral 2023 - LI	Energy Savings (MWh/year)	-	-	1,131	-	-	-	1,131
			Demand Reduction (MW)	-	-	0.2	-	-	-	0.2
			Projected Participation	-	-	15,747	-	-	-	15,747
		Behavioral 2024 - LI	Energy Savings (MWh/year)	-	-	-	644	-	-	644
			Demand Reduction (MW)	-	-	-	0.1	-	-	0.1
			Projected Participation	-	-	-	7,482	-	-	7,482
		Behavioral 2025 - LI	Energy Savings (MWh/year)	-	-	-	-	653	-	653
			Demand Reduction (MW)	-	-	-	-	0.1	-	0.1
			Projected Participation	-	-	-	-	6,699	-	6,699
	LI - Multifamily - Res	MF - Tenant - DI - Res - LI	Energy Savings (MWh/year)	432	432	432	432	432	2,159	
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.4	
			Projected Participation	360	360	360	360	360	1,800	
		MF - Tenant - Prescriptive - Res - LI	Energy Savings (MWh/year)	29	29	29	29	29	143	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	360	360	360	360	360	1,800	
		MF - Tenant - Custom - Res - LI	Energy Savings (MWh/year)	122	122	122	122	122	610	
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.3	
			Projected Participation	444	444	444	444	444	2,222	
		MF - Common - Prescriptive - Res - LI	Energy Savings (MWh/year)	0	0	0	0	0	0	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		MF - Common - Custom - Res - LI	Energy Savings (MWh/year)	10	10	10	10	10	49	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		MF - Common - DI - Res - LI	Energy Savings (MWh/year)	37	37	37	37	37	187	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
	LI - New Homes	NC -Townhouse and duplex units - LI	Energy Savings (MWh/year)	25	25	25	25	25	126	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	15	15	15	15	15	75	
		NC - Two-on-Two condominium units - LI	Energy Savings (MWh/year)	1	1	1	1	1	7	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		NC - Single-family detached units - LI	Energy Savings (MWh/year)	3	3	3	3	3	14	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
NC - Multi Family Low Rise - LI		Energy Savings (MWh/year)	1	1	1	1	1	7		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
		Projected Participation	1	1	1	1	1	5		
NC - Manufactured Housing - LI		Energy Savings (MWh/year)	2	2	2	2	2	9		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
		Projected Participation	1	1	1	1	1	5		
NC - Multi Family High Rise - LI		Energy Savings (MWh/year)	1	1	1	1	1	7		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
		Projected Participation	1	1	1	1	1	5		
C&I Energy Solutions for Business Program - Small	Multi Family - SCI	MF - Tenant - DI - SCI - LI	Energy Savings (MWh/year)	1	1	1	1	1	6	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		MF - Tenant - Prescriptive - SCI -LI	Energy Savings (MWh/year)	0	0	0	0	0	0	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		MF - Tenant - Custom - SCI -LI	Energy Savings (MWh/year)	0	0	0	0	0	1	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		MF - Common - Prescriptive - SCI - LI	Energy Savings (MWh/year)	0	0	0	0	0	1	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		MF - Common - Custom - SCI - LI	Energy Savings (MWh/year)	10	10	10	10	10	49	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		MF - Common - DI - SCI - LI	Energy Savings (MWh/year)	337	337	337	337	337	1,687	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2	
			Projected Participation	9	9	9	9	9	45	
		MF - Tenant - DI - SCI	Energy Savings (MWh/year)	6	11	11	11	11	51	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	25	50	50	50	50	225	
		MF - Tenant - Prescriptive - SCI	Energy Savings (MWh/year)	3	6	6	6	6	25	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	35	70	70	70	70	315	
MF - Tenant - Custom - SCI	Energy Savings (MWh/year)	2	4	4	4	4	17			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	7	14	14	14	14	63			
MF - Common - Prescriptive - SCI	Energy Savings (MWh/year)	2	3	3	3	3	15			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	6	12	12	12	12	54			
MF - Common - Custom - SCI	Energy Savings (MWh/year)	10	20	20	20	20	88			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	1	2	2	2	2	9			
MF - Common - DI - SCI	Energy Savings (MWh/year)	36	72	72	72	72	326			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	7	14	14	14	14	63			

Appendix B, Table 8: Estimated Savings and Participation

Met-Ed									
Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Air Conditioning - Level 1 <=5.4 Tn - SCI	Energy Savings (MWh/year)	596	596	596	596	596	2,980
			Demand Reduction (MW)	0.3	0.3	0.3	0.3	0.3	1.6
			Projected Participation	766	766	766	766	766	3,830
		Air Conditioning - Level 1 >5.4 < 20 Tn - SCI	Energy Savings (MWh/year)	104	104	104	104	104	518
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.3
			Projected Participation	142	142	142	142	142	710
		Air Conditioning - Level 1 >=20 Tn - SCI	Energy Savings (MWh/year)	17	17	17	17	17	85
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	9	9	9	9	9	45
		Heat Pump - Level 1 <=5.4 Tn - SCI	Energy Savings (MWh/year)	26	26	26	26	26	128
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	26	26	26	26	26	130
		Heat Pump - Water & GeoT - ES Tier 3 - SCI	Energy Savings (MWh/year)	9	9	9	9	9	46
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	4	4	4	4	4	20
		Ductless Mini-Split HP - Level 3 - SCI	Energy Savings (MWh/year)	42	42	42	42	42	211
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	57	57	57	57	57	285
		PTAC - SCI	Energy Savings (MWh/year)	35	35	35	35	35	176
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	373	373	373	373	373	1,865
		PTHP - SCI	Energy Savings (MWh/year)	10	10	10	10	10	51
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	57	57	57	57	57	285
		Room Air Conditioner - SCI	Energy Savings (MWh/year)	17	17	17	17	17	86
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	227	227	227	227	227	1,135
		Smart Thermostat -Rebate - SCI	Energy Savings (MWh/year)	10	10	10	10	10	52
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	57	57	57	57	57	285
		HVAC - Custom - SCI	Energy Savings (MWh/year)	37	37	37	37	37	183
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Circulating Pump (Mid Strm) - SCI	Energy Savings (MWh/year)	36	36	36	36	36	180
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	227	227	227	227	227	1,135
		HVAC - Maintenance - SCI	Energy Savings (MWh/year)	16	16	16	16	16	81
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	45	45	45	45	45	225
		Furnace Fan (Retrofit or New to ECM) - SCI	Energy Savings (MWh/year)	8	8	8	8	8	41
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	68	68	68	68	68	340
		Lighting Control (Daylight & Occupancy) - SCI	Energy Savings (MWh/year)	2,349	2,349	2,349	2,349	2,349	11,746
			Demand Reduction (MW)	0.6	0.6	0.6	0.6	0.6	3.1
			Projected Participation	5,500	5,500	5,500	5,500	5,500	27,500
		Linear Fluorescent - SCI	Energy Savings (MWh/year)	40	40	40	40	40	202
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	340	340	340	340	340	1,700
		LED Linear - SCI	Energy Savings (MWh/year)	2,001	2,001	2,001	2,001	2,001	10,005
			Demand Reduction (MW)	0.3	0.3	0.3	0.3	0.3	1.4
			Projected Participation	15,000	15,000	15,000	15,000	15,000	75,000
		LED Channel Signage - SCI	Energy Savings (MWh/year)	79	79	79	79	79	397
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	215	215	215	215	215	1,075
		Exit Sign - SCI	Energy Savings (MWh/year)	38	38	38	38	38	188
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	230	230	230	230	230	1,150
		LED Fixture External - SCI	Energy Savings (MWh/year)	239	239	239	239	239	1,193
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	425	425	425	425	425	2,125
		LED Fixture Internal - SCI	Energy Savings (MWh/year)	54	54	54	54	54	272
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	410	410	410	410	410	2,050
		LED Lamp - SCI	Energy Savings (MWh/year)	20	20	20	20	20	102
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	800	800	800	800	800	4,000
		Lighting - Other - SCI	Energy Savings (MWh/year)	22	22	22	22	22	108
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Street & Area Lighting (Customer Owned) - SCI	Energy Savings (MWh/year)	1	1	1	1	1	3
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	1	1	1	1	1	5
		LED Reach in Refrig / Frzer Light - SCI	Energy Savings (MWh/year)	180	180	180	180	180	902
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	300	300	300	300	300	1,500
		Lighting - Custom - SCI	Energy Savings (MWh/year)	22	22	22	22	22	108
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Network Lighting Control - SCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
Projected Participation	70		70	70	70	70	350		
Linear Lamp - MS - SCI	Energy Savings (MWh/year)	926	926	926	926	926	4,631		
	Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	1.2		
	Projected Participation	36,000	36,000	36,000	36,000	36,000	180,000		
High/Low Bay Lamp - MS - SCI	Energy Savings (MWh/year)	993	993	993	993	993	4,965		
	Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	0.9		
	Projected Participation	1,000	1,000	1,000	1,000	1,000	5,000		
LED Fixture - MS - SCI	Energy Savings (MWh/year)	132	132	132	132	132	662		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2		
	Projected Participation	1,500	1,500	1,500	1,500	1,500	7,500		
ECM Evap Fan Motor - SCI	Energy Savings (MWh/year)	17	17	17	17	17	87		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	11	11	11	11	11	55		
Evap Fan Controls - SCI	Energy Savings (MWh/year)	14	14	14	14	14	70		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	11	11	11	11	11	55		
Refrigerator - Reach In - SCI	Energy Savings (MWh/year)	16	16	16	16	16	79		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	35	35	35	35	35	175		
Freezer - Reach In - SCI	Energy Savings (MWh/year)	20	20	20	20	20	98		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	23	23	23	23	23	115		

Appendix B, Table 8: Estimated Savings and Participation

Met-Ed

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Refrigerated Case Cover - SCI	Energy Savings (MWh/year)	5	5	5	5	5	25
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	113	113	113	113	113	565
		Anti Sweat Heater Controls - SCI	Energy Savings (MWh/year)	24	24	24	24	24	120
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	34	34	34	34	34	170
		Strip Curtain - SCI	Energy Savings (MWh/year)	64	64	64	64	64	321
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	363	363	363	363	363	1,815
		Ice Machine - SCI	Energy Savings (MWh/year)	5	5	5	5	5	26
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	11	11	11	11	11	55
		Beverage Vending Machine - Controls - SCI	Energy Savings (MWh/year)	8	8	8	8	8	42
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	6	6	6	6	6	30
		Beverage Vending Machine - Energy Star - SCI	Energy Savings (MWh/year)	24	24	24	24	24	120
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	17	17	17	17	17	85
		Steam Cooker - SCI	Energy Savings (MWh/year)	99	99	99	99	99	494
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	7	7	7	7	7	35
		Fryer - SCI	Energy Savings (MWh/year)	17	17	17	17	17	86
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	7	7	7	7	7	35
		Griddle - SCI	Energy Savings (MWh/year)	18	18	18	18	18	91
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	7	7	7	7	7	35
		Hot Food Holding Cabinet - SCI	Energy Savings (MWh/year)	12	12	12	12	12	61
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	7	7	7	7	7	35
		Combination Oven - SCI	Energy Savings (MWh/year)	91	91	91	91	91	453
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	5	5	5	5	5	25
		Convection Oven - SCI	Energy Savings (MWh/year)	10	10	10	10	10	48
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	5	5	5	5	5	25
		Dishwasher - SCI	Energy Savings (MWh/year)	3	3	3	3	3	15
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Induction Warmer/Rethermalizer Well - SCI	Energy Savings (MWh/year)	4	4	4	4	4	22
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	11	11	11	11	11	55
		Coffee Brewer - SCI	Energy Savings (MWh/year)	3	3	3	3	3	13
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	2	2	2	2	2	10
		Agricultural Process Lighting	Energy Savings (MWh/year)	332	332	332	332	332	1,662
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	150	150	150	150	150	750
		Auto Milker Takeoff	Energy Savings (MWh/year)	7	7	7	7	7	33
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	15	15	15	15	15	75
		Dairy Scroll Compressor	Energy Savings (MWh/year)	13	13	13	13	13	63
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	13	13	13	13	13	65
		HE Ventilation Fans	Energy Savings (MWh/year)	127	127	127	127	127	633
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	130	130	130	130	130	650
		Heat Reclaimer	Energy Savings (MWh/year)	39	39	39	39	39	196
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	5	5	5	5	5	25
		High Volume Low Speed Fan	Energy Savings (MWh/year)	249	249	249	249	249	1,245
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.5
			Projected Participation	25	25	25	25	25	125
		Livestock Waterer	Energy Savings (MWh/year)	2	2	2	2	2	8
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	3	3	3	3	3	15
		Dairy Vac Pump VSD Control	Energy Savings (MWh/year)	485	485	485	485	485	2,424
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.5
			Projected Participation	25	25	25	25	25	125
		Low Pressure Irrigation	Energy Savings (MWh/year)	47	47	47	47	47	236
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.6
			Projected Participation	14	14	14	14	14	70
		Custom - Agricultural	Energy Savings (MWh/year)	10	10	10	10	10	49
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Dairy Refrigeration Tune-Up	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Engine Block Heater Timer	Energy Savings (MWh/year)	4	4	4	4	4	22
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	6	6	6	6	6	30
		Street Lighting (Tariff / Utility Owned(EMU))	Energy Savings (MWh/year)	151	151	151	151	151	755
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	250	250	250	250	250	1,250
		Street Lighting (Tariff / Customer Owned(MU))	Energy Savings (MWh/year)	1	1	1	1	1	3
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	1	1	1	1	1	5
		Refrigerator Recycling - SCI	Energy Savings (MWh/year)	173	173	173	173	173	863
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	179	179	179	179	179	895
		Freezer Recycling - SCI	Energy Savings (MWh/year)	31	31	31	31	31	154
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	46	46	46	46	46	230
		Room Air Conditioner Recycling - SCI	Energy Savings (MWh/year)	4	4	4	4	4	19
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	33	33	33	33	33	165
		Dehumidifiers Recycling - SCI	Energy Savings (MWh/year)	3	3	3	3	3	16
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	7	7	7	7	7	35
		EV Charging Cord - Level 2 - SCI	Energy Savings (MWh/year)	0	0	0	0	0	2
Demand Reduction (MW)	0.0		0.0	0.0	0.0	0.0	0.0		
Projected Participation	11		11	11	11	11	55		

Appendix B, Table 8: Estimated Savings and Participation

Met-Ed

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
C&I Energy Solutions for Business Program - Small	Prescriptive Other - SCI	Clothes Washer Level 1&2 - SCI	Energy Savings (MWh/year)	4	4	4	4	4	21
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	29	29	29	29	29	145
		Clothes Washer Level 3 - SCI	Energy Savings (MWh/year)	0	0	0	0	0	2
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	2	2	2	2	2	10
		Clothes Dryer - SCI	Energy Savings (MWh/year)	1	1	1	1	1	5
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	57	57	57	57	57	285
		Refrigerator Level 1&2 - SCI	Energy Savings (MWh/year)	8	8	8	8	8	39
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	100	100	100	100	100	500
		Refrigerator Level 3 - SCI	Energy Savings (MWh/year)	1	1	1	1	1	5
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	10	10	10	10	10	50
		Pre-Rinse Sprayer - SCI	Energy Savings (MWh/year)	109	109	109	109	109	547
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	229	229	229	229	229	1,145
		Water Heater - Heat Pump - SCI	Energy Savings (MWh/year)	23	23	23	23	23	113
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	29	29	29	29	29	145
		Freezer - SCI	Energy Savings (MWh/year)	1	1	1	1	1	3
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	17	17	17	17	17	85
		Dehumidifier - SCI	Energy Savings (MWh/year)	10	10	10	10	10	48
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	46	46	46	46	46	230
		Water Cooler - SCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Monitor - SCI	Energy Savings (MWh/year)	5	5	5	5	5	24
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	196	196	196	196	196	980
		Computer - SCI	Energy Savings (MWh/year)	9	9	9	9	9	43
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	73	73	73	73	73	365
		Uninterruptible Power Supply (UPS) - SCI	Energy Savings (MWh/year)	29	29	29	29	29	143
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	28	28	28	28	28	140
		Imaging - SCI	Energy Savings (MWh/year)	33	33	33	33	33	165
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	140	140	140	140	140	700
		Small Network - SCI	Energy Savings (MWh/year)	33	33	33	33	33	166
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	140	140	140	140	140	700
		Advanced Pwr Strip - SCI	Energy Savings (MWh/year)	2	2	2	2	2	12
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	28	28	28	28	28	140
		Custom - Process Improvement - SCI	Energy Savings (MWh/year)	402	402	402	402	402	2,009
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	15	15	15	15	15	75
		Custom - Compressed Air - SCI	Energy Savings (MWh/year)	491	491	491	491	491	2,453
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.3
			Projected Participation	5	5	5	5	5	25
		Custom - Motors - Three Phase - SCI	Energy Savings (MWh/year)	134	134	134	134	134	669
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	6	6	6	6	6	30
		Custom - Refrigeration - SCI	Energy Savings (MWh/year)	477	477	477	477	477	2,386
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	5	5	5	5	5	25
		Custom - Equipment/Servers - SCI	Energy Savings (MWh/year)	36	36	36	36	36	180
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Custom - HVAC/Chlr/Cntrls - SCI	Energy Savings (MWh/year)	257	257	257	257	257	1,284
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	7	7	7	7	7	35
		Custom - VFDs < 10HP - SCI	Energy Savings (MWh/year)	272	272	272	272	272	1,360
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	46	46	46	46	46	230
		Custom - VFDs > 10 HP - SCI	Energy Savings (MWh/year)	166	166	166	166	166	831
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	5	5	5	5	5	25
		Custom - Bldg Improvements - SCI	Energy Savings (MWh/year)	1,473	1,473	1,473	1,473	1,473	7,366
			Demand Reduction (MW)	0.4	0.4	0.4	0.4	0.4	2.1
			Projected Participation	30	30	30	30	30	150
		Custom - New Construction - SCI	Energy Savings (MWh/year)	32	32	32	32	32	160
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Custom - Audit & Education - SCI	Energy Savings (MWh/year)	-	-	-	-	-	-
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	1	1	1	1	1	5
		Building Tune Up - SCI	Energy Savings (MWh/year)	4,447	8,894	8,894	8,894	8,894	40,025
			Demand Reduction (MW)	0.6	1.1	1.1	1.1	1.1	5.2
			Projected Participation	43	86	86	86	86	387
		Virtual/Meter Data Commissioning - SCI	Energy Savings (MWh/year)	65	130	130	130	130	587
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	2	4	4	4	4	18
		Retrocommissioning - SCI	Energy Savings (MWh/year)	191	382	382	382	382	1,718
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	2	4	4	4	4	18
		Building Operations Training - SCI	Energy Savings (MWh/year)	109	218	218	218	218	981
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	2	4	4	4	4	18
		Energy Consultation - SCI	Energy Savings (MWh/year)	-	-	-	-	-	-
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	7	7	7	7	7	35
		Audits - SCI	Energy Savings (MWh/year)	-	-	-	-	-	-
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	1	1	1	1	1	5

Appendix B, Table 8: Estimated Savings and Participation

Met-Ed									
Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	MF - Tenant - DI - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		MF - Tenant - Prescriptive - LCI	Energy Savings (MWh/year)	0	0	0	0	0	0
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		MF - Tenant - Custom - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		MF - Common - Prescriptive - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1
	Demand Reduction (MW)		0.0	0.0	0.0	0.0	0.0	0.0	
	Projected Participation		1	1	1	1	1	5	
	MF - Common - Custom - LCI	Energy Savings (MWh/year)	10	10	10	10	10	49	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1	1	1	1	1	5	
	MF - Common - DI - LCI	Energy Savings (MWh/year)	5	5	5	5	5	26	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1	1	1	1	1	5	
	Prescriptive - LCI	Air Conditioning - Level 1 <=5.4 Tn - LCI	Energy Savings (MWh/year)	12	12	12	12	12	58
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	15	15	15	15	15	75
		Air Conditioning - Level 1 >5.4 < 20 Tn - LCI	Energy Savings (MWh/year)	62	62	62	62	62	310
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	85	85	85	85	85	425
		Air Conditioning - Level 1 >=20 Tn - LCI	Energy Savings (MWh/year)	28	28	28	28	28	141
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	15	15	15	15	15	75
		Heat Pump - Level 1 <=5.4 Tn - LCI	Energy Savings (MWh/year)	12	12	12	12	12	59
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	12	12	12	12	12	60
		Heat Pump - Water & GeoT - ES Tier 3 - LCI	Energy Savings (MWh/year)	11	11	11	11	11	57
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	5	5	5	5	5	25
		Ductless Mini-Split HP - Level 3 - LCI	Energy Savings (MWh/year)	41	41	41	41	41	203
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	70	70	70	70	70	350
		PTAC - LCI	Energy Savings (MWh/year)	18	18	18	18	18	90
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	190	190	190	190	190	950
		PTHP - LCI	Energy Savings (MWh/year)	5	5	5	5	5	27
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	30	30	30	30	30	150
		Room Air Conditioner - LCI	Energy Savings (MWh/year)	9	9	9	9	9	43
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	115	115	115	115	115	575
		Smart Thermostat - Rebate - LCI	Energy Savings (MWh/year)	13	13	13	13	13	63
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	69	69	69	69	69	345
		HVAC - Custom - LCI	Energy Savings (MWh/year)	220	220	220	220	220	1,100
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.3
			Projected Participation	1	1	1	1	1	5
		Circulating Pump (Mid Strm) - LCI	Energy Savings (MWh/year)	218	218	218	218	218	1,091
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	275	275	275	275	275	1,375
		HVAC - Maintenance - LCI	Energy Savings (MWh/year)	25	25	25	25	25	124
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	69	69	69	69	69	345
		Furnace Fan (Retrofit or New to ECM) - LCI	Energy Savings (MWh/year)	4	4	4	4	4	21
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	34	34	34	34	34	170
		Lighting Controls (Daylight & Occupancy) - LCI	Energy Savings (MWh/year)	1,709	1,709	1,709	1,709	1,709	8,543
			Demand Reduction (MW)	0.4	0.4	0.4	0.4	0.4	2.2
			Projected Participation	4,000	4,000	4,000	4,000	4,000	20,000
		Linear Fluorescent - LCI	Energy Savings (MWh/year)	183	183	183	183	183	917
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	1,546	1,546	1,546	1,546	1,546	7,730
		LED Linear - LCI	Energy Savings (MWh/year)	4,125	4,125	4,125	4,125	4,125	20,624
			Demand Reduction (MW)	0.6	0.6	0.6	0.6	0.6	3.0
			Projected Participation	30,921	30,921	30,921	30,921	30,921	154,605
		LED Channel Signage - LCI	Energy Savings (MWh/year)	285	285	285	285	285	1,427
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	773	773	773	773	773	3,865
		Exit Sign - LCI	Energy Savings (MWh/year)	112	112	112	112	112	560
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	687	687	687	687	687	3,435
		LED Fixture External - LCI	Energy Savings (MWh/year)	868	868	868	868	868	4,338
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	1,546	1,546	1,546	1,546	1,546	7,730
		LED Fixture Internal - LCI	Energy Savings (MWh/year)	159	159	159	159	159	797
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	1,200	1,200	1,200	1,200	1,200	6,000
		LED Lamp - LCI	Energy Savings (MWh/year)	67	67	67	67	67	336
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	2,645	2,645	2,645	2,645	2,645	13,225
		Lighting - Other - LCI	Energy Savings (MWh/year)	22	22	22	22	22	108
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Street & Area Lighting (Customer Owned) - LCI	Energy Savings (MWh/year)	1	1	1	1	1	3
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	1	1	1	1	1	5
		LED Reach in Refrig / Frzr Light - LCI	Energy Savings (MWh/year)	217	217	217	217	217	1,086
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	361	361	361	361	361	1,805
		Lighting - Custom - LCI	Energy Savings (MWh/year)	22	22	22	22	22	108
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Network Lighting Control - LCI	Energy Savings (MWh/year)	0	0	0	0	0	2
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	215	215	215	215	215	1,075
		Linear Lamp - MS - LCI	Energy Savings (MWh/year)	1,929	1,929	1,929	1,929	1,929	9,647
Demand Reduction (MW)			0.5	0.5	0.5	0.5	0.5	2.6	
Projected Participation			75,000	75,000	75,000	75,000	75,000	375,000	

Appendix B, Table 8: Estimated Savings and Participation

Met-Ed

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
C&I Energy Solutions for Business Program - Large	Prescriptive - LCI	High/Low Bay Lamp - MS - LCI	Energy Savings (MWh/year)	2,979	2,979	2,979	2,979	2,979	14,896
			Demand Reduction (MW)	0.5	0.5	0.5	0.5	0.5	2.6
			Projected Participation	3,000	3,000	3,000	3,000	3,000	15,000
		LED Fixture - MS - LCI	Energy Savings (MWh/year)	308	308	308	308	308	1,542
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.4
			Projected Participation	3,496	3,496	3,496	3,496	3,496	17,480
		ECM Evap Fan Motor - LCI	Energy Savings (MWh/year)	14	14	14	14	14	71
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	9	9	9	9	9	45
		Evap Fan Controls - LCI	Energy Savings (MWh/year)	12	12	12	12	12	58
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	9	9	9	9	9	45
		Refrigerator - Reach In - LCI	Energy Savings (MWh/year)	24	24	24	24	24	118
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	52	52	52	52	52	260
		Freezer - Reach In - LCI	Energy Savings (MWh/year)	14	14	14	14	14	72
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	17	17	17	17	17	85
		Refrigerated Case Cover - LCI	Energy Savings (MWh/year)	4	4	4	4	4	19
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	86	86	86	86	86	430
		Anti Sweat Heater Control - LCI	Energy Savings (MWh/year)	18	18	18	18	18	92
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	26	26	26	26	26	130
		Strip Curtain - LCI	Energy Savings (MWh/year)	49	49	49	49	49	243
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	275	275	275	275	275	1,375
		Ice Machine - LCI	Energy Savings (MWh/year)	4	4	4	4	4	22
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	9	9	9	9	9	45
		Beverage Vending Machine - Controls - LCI	Energy Savings (MWh/year)	6	6	6	6	6	28
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	4	4	4	4	4	20
		Beverage Vending Machine - Energy Star - LCI	Energy Savings (MWh/year)	18	18	18	18	18	92
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	13	13	13	13	13	65
		Steam Cooker - LCI	Energy Savings (MWh/year)	71	71	71	71	71	353
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	5	5	5	5	5	25
		Fryer - LCI	Energy Savings (MWh/year)	12	12	12	12	12	61
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	5	5	5	5	5	25
		Griddle - LCI	Energy Savings (MWh/year)	13	13	13	13	13	65
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	5	5	5	5	5	25
		Hot Food Holding Cabinet - LCI	Energy Savings (MWh/year)	9	9	9	9	9	43
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	5	5	5	5	5	25
		Combination Oven - LCI	Energy Savings (MWh/year)	54	54	54	54	54	272
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	3	3	3	3	3	15
		Convection Oven - LCI	Energy Savings (MWh/year)	6	6	6	6	6	29
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	3	3	3	3	3	15
		Dishwasher - LCI	Energy Savings (MWh/year)	3	3	3	3	3	15
Demand Reduction (MW)	0.0		0.0	0.0	0.0	0.0	0.0		
Projected Participation	1		1	1	1	1	5		
Induction Warmer/Rethermalizer Well - LCI	Energy Savings (MWh/year)	4	4	4	4	4	18		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	9	9	9	9	9	45		
Coffee Brewer - LCI	Energy Savings (MWh/year)	3	3	3	3	3	13		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	2	2	2	2	2	10		
Pre-Rinse Sprayer - LCI	Energy Savings (MWh/year)	27	27	27	27	27	136		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	57	57	57	57	57	285		
Refrigerator Recycling - LCI	Energy Savings (MWh/year)	6	6	6	6	6	29		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	6	6	6	6	6	30		
Freezer Recycling - LCI	Energy Savings (MWh/year)	1	1	1	1	1	7		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	2	2	2	2	2	10		
Room Air Conditioner Recycling - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Dehumidifiers Recycling - LCI	Energy Savings (MWh/year)	0	0	0	0	0	2		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
EV Charging Cord - Level 2 - LCI	Energy Savings (MWh/year)	0	0	0	0	0	2		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	11	11	11	11	11	55		
Clothes Washer Level 1&2 - LCI	Energy Savings (MWh/year)	4	4	4	4	4	21		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	29	29	29	29	29	145		
Clothes Washer Level 3 - LCI	Energy Savings (MWh/year)	0	0	0	0	0	2		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	2	2	2	2	2	10		
Clothes Dryer - LCI	Energy Savings (MWh/year)	1	1	1	1	1	5		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	57	57	57	57	57	285		
Refrigerator Level 1&2 - LCI	Energy Savings (MWh/year)	19	19	19	19	19	97		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	250	250	250	250	250	1,250		
Refrigerator Level 3 - LCI	Energy Savings (MWh/year)	3	3	3	3	3	13		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	25	25	25	25	25	125		
Water Heater - Heat Pump - LCI	Energy Savings (MWh/year)	23	23	23	23	23	113		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	29	29	29	29	29	145		

Appendix B, Table 8: Estimated Savings and Participation

Met-Ed											
Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total		
C&I Energy Solutions for Business Program - Large	Prescriptive Other - LCI	Freezer - LCI	Energy Savings (MWh/year)	1	1	1	1	1	3		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	17	17	17	17	17	85		
		Dehumidifier - LCI	Energy Savings (MWh/year)	10	10	10	10	10	48		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	46	46	46	46	46	230		
		Water Cooler - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	1	1	1	1	1	5		
		Monitor - LCI	Energy Savings (MWh/year)	0	0	0	0	0	0		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	4	4	4	4	4	20		
		Computer - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	2	2	2	2	2	10		
		Uninterruptible Power Supply (UPS) - LCI	Energy Savings (MWh/year)	1	1	1	1	1	5		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	1	1	1	1	1	5		
		Imaging - LCI	Energy Savings (MWh/year)	1	1	1	1	1	4		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	3	3	3	3	3	15		
		Small Network - LCI	Energy Savings (MWh/year)	1	1	1	1	1	4		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	3	3	3	3	3	15		
		Advanced Pwr Strip - LCI	Energy Savings (MWh/year)	0	0	0	0	0	0		
			Demand Reduction (MW)	-	-	-	-	-	-		
			Projected Participation	1	1	1	1	1	5		
		Custom - LCI	Custom - Process Improvement - LCI	Energy Savings (MWh/year)	9,461	9,461	9,461	9,461	9,461	47,306	
				Demand Reduction (MW)	1.1	1.1	1.1	1.1	1.1	5.7	
				Projected Participation	48	48	48	48	48	240	
			Custom - Compressed Air - LCI	Energy Savings (MWh/year)	1,079	1,079	1,079	1,079	1,079	5,394	
				Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.7	
				Projected Participation	4	4	4	4	4	20	
			Custom - Motors - Three Phase - LCI	Energy Savings (MWh/year)	2,298	2,298	2,298	2,298	2,298	11,491	
				Demand Reduction (MW)	0.3	0.3	0.3	0.3	0.3	1.5	
				Projected Participation	17	17	17	17	17	85	
			Custom - Refrigeration - LCI	Energy Savings (MWh/year)	254	254	254	254	254	1,269	
				Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
				Projected Participation	2	2	2	2	2	10	
			Custom - Equipment/Servers - LCI	Energy Savings (MWh/year)	902	902	902	902	902	4,508	
				Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.5	
				Projected Participation	5	5	5	5	5	25	
			Custom - HVAC/Chlr/Cntrls - LCI	Energy Savings (MWh/year)	3,080	3,080	3,080	3,080	3,080	15,400	
				Demand Reduction (MW)	0.9	0.9	0.9	0.9	0.9	4.3	
				Projected Participation	14	14	14	14	14	70	
			Custom - VFDs < 10HP - LCI	Energy Savings (MWh/year)	284	284	284	284	284	1,422	
				Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2	
				Projected Participation	48	48	48	48	48	240	
			Custom - VFDs > 10 HP - LCI	Energy Savings (MWh/year)	798	798	798	798	798	3,990	
				Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
				Projected Participation	24	24	24	24	24	120	
			Custom - Bldg Improvements - LCI	Energy Savings (MWh/year)	2,947	2,947	2,947	2,947	2,947	14,733	
				Demand Reduction (MW)	0.8	0.8	0.8	0.8	0.8	4.2	
				Projected Participation	60	60	60	60	60	300	
			Custom - New Construction - LCI	Energy Savings (MWh/year)	56	56	56	56	56	282	
				Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
				Projected Participation	1	1	1	1	1	5	
			Custom - Audit & Education - LCI	Energy Savings (MWh/year)	-	-	-	-	-	-	
				Demand Reduction (MW)	-	-	-	-	-	-	
				Projected Participation	1	1	1	1	1	5	
			Energy Management - LCI	Building Tune Up - LCI	Energy Savings (MWh/year)	797	1,595	1,595	1,595	1,595	7,177
					Demand Reduction (MW)	0.2	0.4	0.4	0.4	0.4	1.7
					Projected Participation	2	4	4	4	4	18
				Virtual/Meter Data Commissioning - LCI	Energy Savings (MWh/year)	98	196	196	196	196	880
					Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
					Projected Participation	3	6	6	6	6	27
				Retrocommissioning - LCI	Energy Savings (MWh/year)	1,065	1,065	1,065	1,065	1,065	5,325
					Demand Reduction (MW)	0.3	0.3	0.3	0.3	0.3	1.4
					Projected Participation	2	2	2	2	2	10
				Building Operations Training - LCI	Energy Savings (MWh/year)	163	327	327	327	327	1,471
					Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
					Projected Participation	3	6	6	6	6	27
				Energy Consultation - LCI	Energy Savings (MWh/year)	-	-	-	-	-	-
					Demand Reduction (MW)	-	-	-	-	-	-
					Projected Participation	11	11	11	11	11	55
				Audits - LCI	Energy Savings (MWh/year)	-	-	-	-	-	-
					Demand Reduction (MW)	-	-	-	-	-	-
					Projected Participation	1	1	1	1	1	5

Appendix B, Table 9-1: Program Budget							
Met-Ed							
Energy Efficient Products Program							
Cost Element		PY13	PY14	PY15	PY16	PY17	Phase IV Total
Total Budget (\$000)		\$2,753	\$2,679	\$2,676	\$2,678	\$2,678	\$13,464
Incentives (\$000)	Rebates	\$1,221	\$1,221	\$1,221	\$1,221	\$1,221	\$6,103
	Upstream/Midstream Buydown	\$35	\$35	\$35	\$35	\$35	\$175
	Kits	\$0	\$0	\$0	\$0	\$0	\$0
	Direct Install Materials & Labor	\$0	\$0	\$0	\$0	\$0	\$0
	Incentive Total	\$1,256	\$1,256	\$1,256	\$1,256	\$1,256	\$6,278
Non-Incentives (\$000)	Program Design	\$17	\$17	\$17	\$17	\$17	\$87
	Administrative	\$223	\$172	\$169	\$171	\$171	\$906
	EDC Delivery Costs	\$0	\$0	\$0	\$0	\$0	\$0
	CSP Delivery Fees	\$838	\$828	\$828	\$828	\$828	\$4,149
	Marketing	\$310	\$310	\$310	\$311	\$311	\$1,552
	EM&V	\$98	\$96	\$95	\$96	\$96	\$480
	Other ¹	\$11	\$0	\$0	\$0	\$0	\$11
	Non-Incentive Total	\$1,498	\$1,423	\$1,420	\$1,423	\$1,422	\$7,186
Percent Incentives		46%	47%	47%	47%	47%	47%

Appendix B, Table 9-2: Program Budget							
Met-Ed							
Energy Efficient Homes Program							
Cost Element		PY13	PY14	PY15	PY16	PY17	Phase IV Total
Total Budget (\$000)		\$4,508	\$4,650	\$4,647	\$4,650	\$4,650	\$23,105
Incentives (\$000)	Rebates	\$716	\$766	\$766	\$766	\$766	\$3,780
	Upstream/Midstream Buydown	\$0	\$0	\$0	\$0	\$0	\$0
	Kits	\$2,247	\$2,247	\$2,247	\$2,247	\$2,247	\$11,233
	Direct Install Materials & Labor	\$19	\$34	\$34	\$34	\$34	\$153
	Incentive Total	\$2,981	\$3,046	\$3,046	\$3,046	\$3,046	\$15,166
Non-Incentives (\$000)	Program Design	\$18	\$20	\$20	\$20	\$20	\$99
	Administrative	\$230	\$201	\$197	\$199	\$199	\$1,026
	EDC Delivery Costs	\$0	\$0	\$0	\$0	\$0	\$0
	CSP Delivery Fees	\$840	\$944	\$944	\$944	\$944	\$4,616
	Marketing	\$267	\$273	\$273	\$274	\$274	\$1,362
	EM&V	\$161	\$166	\$166	\$166	\$166	\$824
	Other ¹	\$12	\$0	\$0	\$0	\$0	\$12
Non-Incentive Total	\$1,527	\$1,604	\$1,601	\$1,604	\$1,603	\$7,939	
Percent Incentives		66%	66%	66%	66%	66%	66%

Appendix B, Table 9-3: Program Budget							
Met-Ed							
Low Income Energy Efficiency Program							
Cost Element	PY13	PY14	PY15	PY16	PY17	Phase IV Total	
Total Budget (\$000)	\$3,104	\$3,070	\$3,068	\$2,973	\$2,963	\$15,178	
Incentives (\$000)	Rebates	\$123	\$123	\$123	\$123	\$617	
	Upstream/Midstream Buydown	\$0	\$0	\$0	\$0	\$0	
	Kits	\$441	\$441	\$441	\$441	\$2,207	
	Direct Install Materials & Labor	\$1,530	\$1,530	\$1,530	\$1,530	\$7,648	
	Incentive Total	\$2,095	\$2,095	\$2,095	\$2,095	\$2,095	\$10,473
Non-Incentives (\$000)	Program Design	\$11	\$12	\$12	\$11	\$10	\$56
	Administrative	\$149	\$118	\$116	\$103	\$102	\$588
	EDC Delivery Costs	\$0	\$0	\$0	\$0	\$0	\$0
	CSP Delivery Fees	\$583	\$587	\$587	\$513	\$505	\$2,775
	Marketing	\$148	\$149	\$149	\$146	\$145	\$736
	EM&V	\$111	\$110	\$109	\$106	\$106	\$542
	Other ¹	\$8	\$0	\$0	\$0	\$0	\$8
	Non-Incentive Total	\$1,009	\$975	\$973	\$878	\$869	\$4,705
Percent Incentives	67%	68%	68%	70%	71%	69%	

Appendix B, Table 9-4: Program Budget							
Met-Ed							
C&I Energy Solutions for Business Program - Small							
Cost Element ²	PY13	PY14	PY15	PY16	PY17	Phase IV Total	
Total Budget (\$000)	\$6,016	\$7,491	\$7,486	\$7,490	\$7,490	\$35,973	
Incentives (\$000)	Rebates	\$1,416	\$1,453	\$1,453	\$1,453	\$1,453	\$7,226
	Upstream/Midstream Buydown	\$146	\$146	\$146	\$146	\$146	\$732
	Kits	\$0	\$0	\$0	\$0	\$0	\$0
	Direct Install Materials & Labor	\$1,971	\$3,453	\$3,453	\$3,453	\$3,453	\$15,782
	Incentive Total	\$3,533	\$5,052	\$5,052	\$5,052	\$5,052	\$23,740
Non-Incentives (\$000)	Program Design	\$29	\$29	\$29	\$30	\$30	\$147
	Administrative	\$374	\$292	\$287	\$290	\$290	\$1,534
	EDC Delivery Costs	\$0	\$0	\$0	\$0	\$0	\$0
	CSP Delivery Fees	\$1,645	\$1,648	\$1,648	\$1,648	\$1,648	\$8,235
	Marketing	\$201	\$203	\$203	\$204	\$204	\$1,014
	EM&V	\$215	\$267	\$267	\$267	\$267	\$1,283
	Other ¹	\$19	\$0	\$0	\$0	\$0	\$19
Non-Incentive Total	\$2,483	\$2,439	\$2,434	\$2,438	\$2,438	\$12,232	
Percent Incentives	59%	67%	67%	67%	67%	66%	

Appendix B, Table 9-5: Program Budget

Met-Ed

C&I Energy Solutions for Business Program - Large

Cost Element		PY13	PY14	PY15	PY16	PY17	Phase IV Total
Total Budget (\$000)		\$7,469	\$7,276	\$7,270	\$7,275	\$7,275	\$36,565
Incentives (\$000)	Rebates	\$3,376	\$3,402	\$3,402	\$3,402	\$3,402	\$16,984
	Upstream/Midstream Buydown	\$381	\$381	\$381	\$381	\$381	\$1,904
	Kits	\$0	\$0	\$0	\$0	\$0	\$0
	Direct Install Materials & Labor	\$249	\$496	\$496	\$496	\$496	\$2,235
	Incentive Total	\$4,006	\$4,279	\$4,279	\$4,279	\$4,279	\$21,122
Non-Incentives (\$000)	Program Design	\$41	\$37	\$37	\$37	\$37	\$189
	Administrative	\$527	\$368	\$362	\$366	\$365	\$1,989
	EDC Delivery Costs	\$0	\$0	\$0	\$0	\$0	\$0
	CSP Delivery Fees	\$2,427	\$2,167	\$2,167	\$2,167	\$2,167	\$11,094
	Marketing	\$175	\$165	\$165	\$167	\$167	\$839
	EM&V	\$267	\$260	\$259	\$260	\$260	\$1,305
	Other ¹	\$27	\$0	\$0	\$0	\$0	\$27
	Non-Incentive Total	\$3,464	\$2,997	\$2,991	\$2,996	\$2,996	\$15,443
Percent Incentives		54%	59%	59%	59%	59%	58%

¹ Includes External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 10-1: Sector-Specific Summary of EE&C Costs												
Met-Ed												
Residential Portfolio (including Low Income)												
EE&C Program	Cost Elements (\$)								Total Cost	Expected Acquisition Cost (\$/MWh)	Levelized Cost (\$/MWh)	Expected Acquisition Cost (\$/MW)
	Incentives	Program Design	Administrative	EDC Delivery Costs	CSP Delivery Fees	Marketing	EM&V	Other (Describe)				
<i>Energy Efficient Products Program</i>	\$6,278	-	-	-	\$4,149	\$1,320	\$480	-	\$12,227	\$0.27	\$0.35	\$1,146
<i>Energy Efficient Homes Program</i>	\$15,166	-	-	-	\$4,616	\$1,097	\$824	-	\$21,703	\$0.25	\$0.19	\$1,489
<i>Low Income Energy Efficiency Program</i>	\$10,473	-	-	-	\$2,775	\$586	\$542	-	\$14,375	\$0.56	\$0.41	\$3,505
Sector Total	\$31,916	\$0	\$0	\$0	\$11,540	\$3,002	\$1,846	\$0	\$48,305	\$1	\$0.95	\$6,141

Appendix B, Table 10-2: Sector-Specific Summary of EE&C Costs												
Met-Ed												
Small Commercial & Industrial ¹												
EE&C Program	Cost Elements (\$)								Total Cost	Expected Acquisition Cost (\$/MWh)	Levelized Cost (\$/MWh)	Expected Acquisition Cost (\$/MW)
	Incentives	Program Design	Administrative	EDC Delivery Costs	CSP Delivery Fees	Marketing	EM&V	Other (Describe)				
<i>C&I Energy Solutions for Business Program - Small</i>	\$23,740	-	-	-	\$8,235	\$620	\$1,283	-	\$33,879	\$0.29	\$0.24	\$1,593
Sector Total	\$23,740	\$0	\$0	\$0	\$8,235	\$620	\$1,283	\$0	\$33,879	\$0	\$0.24	\$1,593

Appendix B, Table 10-3: Sector-Specific Summary of EE&C Cost												
Met-Ed												
Large Commercial & Industrial												
EE&C Program	Cost Elements (\$)								Total Cost	Expected Acquisition Cost (\$/MWh)	Levelized Cost (\$/MWh)	Expected Acquisition Cost (\$/MW)
	Incentives	Program Design	Administrative	EDC Delivery Costs	CSP Delivery Fees	Marketing	EM&V	Other (Describe)				
<i>C&I Energy Solutions for Business Program - Large</i>	\$21,122	-	-	-	\$11,094	\$331	\$1,305	-	\$33,852	\$0.18	\$0.19	\$1,012
Sector Total	\$21,122	\$0	\$0	\$0	\$11,094	\$331	\$1,305	\$0	\$33,852	\$0	\$0.19	\$1,012

¹ Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 11: Allocation of Common Costs to Applicable Customer Sector

Met-Ed

Common Cost Element	Total Cost (\$000)	Basis for Cost Allocation ³	Sector Cost Allocation (\$000)		
			Residential (Including Low Income)	Commercial & Industrial - Small	Commercial & Industrial - Large
Program Design	\$578	See Footnote 3	\$241	\$147	\$189
Administrative	\$6,043	See Footnote 3	\$2,521	\$1,534	\$1,989
Marketing ¹	\$1,550	See Footnote 3	\$648	\$394	\$508
Other (Describe) ²	\$78	See Footnote 3	\$31	\$19	\$27
Totals	\$8,248		\$3,441	\$2,094	\$2,713

¹ Includes Utility Marketing/General Awareness

² Includes External Legal

³ Ratio of each programs specific delivery and marketing costs

Appendix B, Table 12: Summary of Portfolio EE&C Costs			
Met-Ed			
Portfolio	Total Sector Portfolio-specific Costs	Total Common Costs	Total of All Costs
<i>Residential (Including Low Income)</i>	\$48,305	\$3,441	\$51,746
<i>Commercial/Industrial -- Small¹</i>	\$33,879	\$2,094	\$35,973
<i>Commercial/Industrial -- Large</i>	\$33,852	\$2,713	\$36,565
Totals	\$116,036	\$8,248	\$124,284

¹ Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 13-1: TRC Benefits Table (Gross)

Met-Ed

Portfolio	Program	NTGR & TRC Ratio		TRC Costs By Program Per Year (\$000)				TRC Benefits By Program Per Year (\$000)					
		Program Year	NTGR	TRC	Incremental Measure Cost		Program Administration Cost	Total TRC Costs	Capacity Benefits	Energy Benefits	Fossil Fuel Benefits	O&M and Water Benefits	Total TRC Benefits
					Paid by EDC	Paid by Participants							
<i>Energy Efficient Products Program</i>	PY13	1.0	0.9	\$1,465	\$1,951	\$1,498	\$4,914	\$2,092	\$2,244	\$12	\$315	\$4,663	
	PY14	1.0	1.0	\$1,327	\$1,858	\$1,423	\$4,609	\$2,026	\$2,206	\$12	\$300	\$4,544	
	PY15	1.0	1.0	\$1,196	\$1,770	\$1,420	\$4,386	\$1,968	\$2,181	\$12	\$286	\$4,446	
	PY16	1.0	1.0	\$1,071	\$1,686	\$1,423	\$4,180	\$1,912	\$2,166	\$12	\$272	\$4,361	
	PY17	1.0	1.1	\$953	\$1,605	\$1,422	\$3,980	\$1,857	\$2,155	\$12	\$259	\$4,282	
Energy Efficient Products Program Total		1.0	1.0	\$6,012	\$8,871	\$7,186	\$22,069	\$9,855	\$10,951	\$59	\$1,432	\$22,297	
<i>Energy Efficient Homes Program</i>	PY13	1.0	1.6	\$2,997	\$650	\$1,527	\$5,175	\$3,443	\$4,556	\$17	\$400	\$8,417	
	PY14	1.0	1.6	\$2,778	\$619	\$1,604	\$5,002	\$3,338	\$4,496	\$17	\$380	\$8,231	
	PY15	1.0	1.7	\$2,570	\$590	\$1,601	\$4,760	\$3,242	\$4,450	\$17	\$362	\$8,071	
	PY16	1.0	1.7	\$2,371	\$562	\$1,604	\$4,536	\$3,150	\$4,410	\$16	\$344	\$7,920	
	PY17	1.0	1.8	\$2,181	\$535	\$1,603	\$4,320	\$3,060	\$4,368	\$16	\$328	\$7,771	
Energy Efficient Homes Program Total		1.0	1.7	\$12,897	\$2,957	\$7,939	\$23,793	\$16,233	\$22,281	\$83	\$1,814	\$40,411	
<i>Low Income Energy Efficiency Program</i>	PY13	1.0	0.7	\$2,346	\$39	\$1,009	\$3,394	\$884	\$1,335	\$1	\$27	\$2,247	
	PY14	1.0	0.7	\$2,188	\$37	\$975	\$3,201	\$856	\$1,317	\$1	\$26	\$2,200	
	PY15	1.0	0.7	\$2,038	\$35	\$973	\$3,046	\$832	\$1,304	\$1	\$25	\$2,162	
	PY16	1.0	0.8	\$1,907	\$34	\$878	\$2,819	\$808	\$1,293	\$1	\$24	\$2,126	
	PY17	1.0	0.8	\$1,776	\$32	\$869	\$2,677	\$785	\$1,283	\$1	\$22	\$2,091	
Low Income Energy Efficiency Program Total		1.0	0.7	\$10,256	\$177	\$4,705	\$15,138	\$4,164	\$6,533	\$5	\$124	\$10,827	
<i>C&I Energy Solutions for Business Program - Small</i>	PY13	1.0	1.3	\$3,533	\$4,158	\$2,483	\$10,174	\$5,887	\$7,018	\$0	\$411	\$13,315	
	PY14	1.0	1.3	\$3,249	\$3,960	\$2,439	\$9,648	\$5,708	\$6,912	\$0	\$391	\$13,011	
	PY15	1.0	1.4	\$2,979	\$3,771	\$2,434	\$9,184	\$5,545	\$6,826	\$0	\$372	\$12,743	
	PY16	1.0	1.4	\$2,720	\$3,592	\$2,438	\$8,751	\$5,386	\$6,753	\$0	\$354	\$12,494	
	PY17	1.0	1.5	\$2,475	\$3,421	\$2,438	\$8,333	\$5,233	\$6,684	\$0	\$337	\$12,254	
C&I Energy Solutions for Business Program - Small Total		1.0	1.4	\$14,956	\$18,902	\$12,232	\$46,090	\$27,758	\$34,194	\$1	\$1,864	\$63,818	
<i>C&I Energy Solutions for Business Program - Large</i>	PY13	1.0	1.6	\$4,006	\$8,399	\$3,464	\$15,868	\$10,826	\$14,068	\$0	\$893	\$25,787	
	PY14	1.0	1.7	\$3,672	\$7,999	\$2,997	\$14,668	\$10,498	\$13,855	\$0	\$849	\$25,203	
	PY15	1.0	1.8	\$3,355	\$7,618	\$2,991	\$13,964	\$10,198	\$13,677	\$0	\$808	\$24,684	
	PY16	1.0	1.8	\$3,052	\$7,255	\$2,996	\$13,304	\$9,907	\$13,524	\$0	\$769	\$24,200	
	PY17	1.0	1.9	\$2,764	\$6,910	\$2,996	\$12,670	\$9,624	\$13,375	\$0	\$732	\$23,731	
C&I Energy Solutions for Business Program - Large Total		1.0	1.8	\$16,850	\$38,180	\$15,443	\$70,473	\$51,053	\$68,500	\$1	\$4,051	\$123,605	
Total			1.5	\$60,971	\$69,086	\$47,505	\$177,562	\$109,065	\$142,458	\$149	\$9,286	\$260,958	

Appendix B, Table 13-2: TRC Benefits Table (Net)

Met-Ed

Portfolio	NTGR & TRC Ratio			TRC Costs By Program Per Year (\$000)				TRC Benefits By Program Per Year (\$000)					
	Program	Program Year	NTGR	TRC	Incremental Measure Cost		Program Administration Cost	Total TRC Costs	Capacity Benefits	Energy Benefits	Fossil Fuel Benefits	O&M and Water Benefits	Total TRC Benefits
					Paid by EDC	Paid by Participants							
Energy Efficient Products Program	PY13	0.5	0.7	\$1,465	\$637	\$1,498	\$3,599	\$1,062	\$1,121	\$6	\$315	\$2,504	
	PY14	0.5	0.7	\$1,327	\$607	\$1,423	\$3,357	\$1,028	\$1,102	\$6	\$300	\$2,436	
	PY15	0.5	0.7	\$1,196	\$578	\$1,420	\$3,194	\$999	\$1,089	\$6	\$286	\$2,380	
	PY16	0.5	0.8	\$1,071	\$550	\$1,423	\$3,044	\$970	\$1,082	\$6	\$272	\$2,330	
	PY17	0.5	0.8	\$953	\$524	\$1,422	\$2,899	\$943	\$1,076	\$6	\$259	\$2,283	
Energy Efficient Products Program Total		0.5	0.7	\$6,012	\$2,896	\$7,186	\$16,094	\$5,002	\$5,470	\$29	\$1,432	\$11,933	
Energy Efficient Homes Program	PY13	0.8	1.3	\$2,997	\$298	\$1,527	\$4,823	\$2,564	\$3,375	\$12	\$400	\$6,351	
	PY14	0.8	1.3	\$2,778	\$284	\$1,604	\$4,666	\$2,485	\$3,329	\$12	\$380	\$6,207	
	PY15	0.8	1.4	\$2,570	\$271	\$1,601	\$4,441	\$2,414	\$3,295	\$12	\$362	\$6,082	
	PY16	0.8	1.4	\$2,371	\$258	\$1,604	\$4,232	\$2,345	\$3,264	\$12	\$344	\$5,965	
	PY17	0.8	1.5	\$2,181	\$246	\$1,603	\$4,030	\$2,278	\$3,232	\$12	\$328	\$5,850	
Energy Efficient Homes Program Total		0.9	1.4	\$12,897	\$1,357	\$7,939	\$22,193	\$12,084	\$16,495	\$61	\$1,814	\$30,454	
Low Income Energy Efficiency Program	PY13	1.0	0.7	\$2,346	\$39	\$1,009	\$3,394	\$884	\$1,335	\$1	\$27	\$2,247	
	PY14	1.0	0.7	\$2,188	\$37	\$975	\$3,201	\$856	\$1,317	\$1	\$26	\$2,200	
	PY15	1.0	0.7	\$2,038	\$35	\$973	\$3,046	\$832	\$1,304	\$1	\$25	\$2,162	
	PY16	1.0	0.8	\$1,907	\$34	\$878	\$2,819	\$808	\$1,293	\$1	\$24	\$2,126	
	PY17	1.0	0.8	\$1,776	\$32	\$869	\$2,677	\$785	\$1,283	\$1	\$22	\$2,091	
Low Income Energy Efficiency Program Total		1.0	0.7	\$10,256	\$177	\$4,705	\$15,138	\$4,164	\$6,533	\$5	\$124	\$10,827	
C&I Energy Solutions for Business Program - Small	PY13	0.7	1.2	\$3,533	\$2,092	\$2,483	\$8,108	\$4,125	\$5,168	\$0	\$411	\$9,703	
	PY14	0.7	1.2	\$3,249	\$1,992	\$2,439	\$7,680	\$3,999	\$5,091	\$0	\$391	\$9,481	
	PY15	0.7	1.3	\$2,979	\$1,897	\$2,434	\$7,310	\$3,885	\$5,027	\$0	\$372	\$9,284	
	PY16	0.7	1.3	\$2,720	\$1,807	\$2,438	\$6,965	\$3,774	\$4,973	\$0	\$354	\$9,101	
	PY17	0.7	1.3	\$2,475	\$1,721	\$2,438	\$6,633	\$3,666	\$4,922	\$0	\$337	\$8,925	
C&I Energy Solutions for Business Program - Small Total		0.7	1.3	\$14,956	\$9,508	\$12,232	\$36,696	\$19,450	\$25,180	\$0	\$1,864	\$46,495	
C&I Energy Solutions for Business Program - Large	PY13	0.8	1.5	\$4,006	\$5,532	\$3,464	\$13,001	\$8,225	\$10,710	\$0	\$893	\$19,828	
	PY14	0.8	1.6	\$3,672	\$5,269	\$2,997	\$11,938	\$7,977	\$10,547	\$0	\$849	\$19,373	
	PY15	0.8	1.7	\$3,355	\$5,018	\$2,991	\$11,364	\$7,749	\$10,411	\$0	\$808	\$18,969	
	PY16	0.8	1.7	\$3,052	\$4,779	\$2,996	\$10,827	\$7,527	\$10,294	\$0	\$769	\$18,591	
	PY17	0.8	1.8	\$2,764	\$4,551	\$2,996	\$10,311	\$7,312	\$10,181	\$0	\$732	\$18,225	
C&I Energy Solutions for Business Program - Large Total		0.8	1.7	\$16,850	\$25,148	\$15,443	\$57,441	\$38,790	\$52,143	\$0	\$4,051	\$94,985	
Total			1.3	\$60,971	\$39,086	\$47,505	\$147,562	\$79,490	\$105,821	\$96	\$9,286	\$194,693	

**Appendix C:
Company Program Tables**

Appendix C, Table 1-1: Program Cost by Program Year

Met-Ed Program Year 13

Program	Sub-Program	Incentives (\$000)					Non-Incentives (\$000)					Totals
		Rebates	Upstream/Mids tream Buydown	Kits	Direct Install Materials & Labor	Program Design	Administrative	Delivery Fees	Marketing	EM&V	Other ¹	
Energy Efficient Products Program	Appliance Recycling	\$267	\$0	\$0	\$0	\$10	\$133	\$517	\$140	\$40	\$7	\$1,113
	Appliance Rebate	\$724	\$0	\$0	\$0	\$3	\$37	\$158	\$73	\$37	\$2	\$1,033
	Consumer Electronics	\$0	\$35	\$0	\$0	\$0	\$3	\$13	\$2	\$2	\$0	\$55
	HVAC	\$230	\$0	\$0	\$0	\$4	\$50	\$151	\$96	\$20	\$3	\$553
	Subtotal	\$1,221	\$35	\$0	\$0	\$17	\$223	\$838	\$310	\$98	\$11	\$2,753
Energy Efficient Homes Program	Comprehensive Audits	\$50	\$0	\$0	\$0	\$2	\$25	\$79	\$44	\$7	\$1	\$208
	Behavioral	\$0	\$0	\$0	\$0	\$5	\$70	\$291	\$21	\$14	\$4	\$405
	Multi Family - Res	\$0	\$0	\$0	\$19	\$1	\$13	\$54	\$15	\$4	\$1	\$107
	School Education	\$0	\$0	\$172	\$0	\$2	\$30	\$64	\$85	\$13	\$2	\$367
	EE Kits	\$0	\$0	\$2,075	\$0	\$3	\$35	\$116	\$57	\$85	\$2	\$2,372
	New Homes	\$666	\$0	\$0	\$0	\$4	\$57	\$236	\$45	\$37	\$3	\$1,050
	Subtotal	\$716	\$0	\$2,247	\$19	\$18	\$230	\$840	\$267	\$161	\$12	\$4,508
Low Income Energy Efficiency Program	Weatherization	\$0	\$0	\$0	\$759	\$2	\$24	\$116	\$11	\$34	\$1	\$946
	LI - Appliances	\$108	\$0	\$0	\$0	\$3	\$34	\$134	\$35	\$12	\$2	\$328
	LI - Behavioral	\$0	\$0	\$0	\$0	\$1	\$19	\$77	\$5	\$4	\$1	\$107
	LI - School Education	\$0	\$0	\$51	\$0	\$1	\$14	\$28	\$35	\$5	\$1	\$136
	LI - EE Kits	\$0	\$0	\$390	\$0	\$1	\$11	\$31	\$25	\$17	\$1	\$476
	LI - Multifamily - Res	\$0	\$0	\$0	\$770	\$3	\$44	\$187	\$37	\$39	\$2	\$1,082
	LI - New Homes	\$16	\$0	\$0	\$0	\$0	\$2	\$9	\$1	\$1	\$0	\$29
	Subtotal	\$123	\$0	\$441	\$1,530	\$11	\$149	\$583	\$148	\$111	\$8	\$3,104
	Residential Total	\$2,060	\$35	\$2,688	\$1,548	\$46	\$602	\$2,261	\$725	\$370	\$31	\$10,365
C&I Energy Solutions for Business Program - Small ²	Multi Family - SCI	\$0	\$0	\$0	\$503	\$5	\$63	\$265	\$47	\$33	\$3	\$919
	Prescriptive - SCI	\$803	\$146	\$0	\$0	\$7	\$88	\$396	\$38	\$55	\$5	\$1,537
	Prescriptive Other - SCI	\$45	\$0	\$0	\$0	\$1	\$8	\$33	\$8	\$4	\$0	\$99
	Custom - SCI	\$527	\$0	\$0	\$0	\$6	\$82	\$348	\$58	\$38	\$4	\$1,063
	Energy Management - SCI	\$42	\$0	\$0	\$1,468	\$10	\$133	\$603	\$51	\$86	\$7	\$2,398
	Subtotal	\$1,416	\$146	\$0	\$1,971	\$29	\$374	\$1,645	\$201	\$215	\$19	\$6,016
	Small Commercial & Industrial Total	\$1,416	\$146	\$0	\$1,971	\$29	\$374	\$1,645	\$201	\$215	\$19	\$6,016
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$2
	Prescriptive - LCI	\$789	\$381	\$0	\$0	\$7	\$91	\$417	\$33	\$64	\$5	\$1,788
	Prescriptive Other - LCI	\$33	\$0	\$0	\$0	\$0	\$3	\$11	\$2	\$2	\$0	\$51
	Custom - LCI	\$2,421	\$0	\$0	\$0	\$25	\$325	\$1,495	\$106	\$162	\$17	\$4,551
	Energy Management - LCI	\$133	\$0	\$0	\$247	\$8	\$109	\$504	\$33	\$38	\$6	\$1,078
	Subtotal	\$3,376	\$381	\$0	\$249	\$41	\$527	\$2,427	\$175	\$267	\$27	\$7,469
	Large Commercial & Industrial Total	\$3,376	\$381	\$0	\$249	\$41	\$527	\$2,427	\$175	\$267	\$27	\$7,469
	Non-Residential Total	\$4,792	\$527	\$0	\$2,220	\$69	\$901	\$4,072	\$376	\$481	\$46	\$13,485
	Total	\$6,852	\$562	\$2,688	\$3,769	\$116	\$1,503	\$6,332	\$1,101	\$851	\$78	\$23,851

¹ External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix C, Table 1-2: Program Cost by Program Year

Met-Ed Program Year 14

Program	Sub-Program	Incentives (\$000)					Non-Incentives (\$000)					Totals
		Rebates	Upstream/Midstream Buydown	Kits	Direct Install Materials & Labor	Program Design	Administrative	CSP Delivery Fees	Marketing	EM&V	Other ¹	
Energy Efficient Products Program	Appliance Recycling	\$267	\$0	\$0	\$0	\$10	\$102	\$506	\$140	\$38	\$0	\$1,063
	Appliance Rebate	\$724	\$0	\$0	\$0	\$3	\$29	\$158	\$73	\$36	\$0	\$1,022
	Consumer Electronics	\$0	\$35	\$0	\$0	\$0	\$2	\$13	\$2	\$2	\$0	\$54
	HVAC	\$230	\$0	\$0	\$0	\$4	\$39	\$151	\$96	\$19	\$0	\$539
	Subtotal	\$1,221	\$35	\$0	\$0	\$17	\$172	\$828	\$310	\$96	\$0	\$2,679
Energy Efficient Homes Program	Comprehensive Audits	\$100	\$0	\$0	\$0	\$3	\$27	\$128	\$46	\$11	\$0	\$315
	Behavioral	\$0	\$0	\$0	\$0	\$9	\$92	\$490	\$31	\$23	\$0	\$645
	Multi Family - Res	\$0	\$0	\$0	\$34	\$1	\$10	\$58	\$15	\$4	\$0	\$122
	School Education	\$0	\$0	\$172	\$0	\$2	\$18	\$31	\$83	\$11	\$0	\$317
	EE Kits	\$0	\$0	\$2,075	\$0	\$1	\$14	\$37	\$54	\$81	\$0	\$2,263
	New Homes	\$666	\$0	\$0	\$0	\$4	\$39	\$200	\$44	\$35	\$0	\$988
	Subtotal	\$766	\$0	\$2,247	\$34	\$20	\$201	\$944	\$273	\$166	\$0	\$4,650
Low Income Energy Efficiency Program	Weatherization	\$0	\$0	\$0	\$759	\$2	\$18	\$110	\$11	\$33	\$0	\$933
	LI - Appliances	\$108	\$0	\$0	\$0	\$2	\$24	\$119	\$35	\$11	\$0	\$299
	LI - Behavioral	\$0	\$0	\$0	\$0	\$3	\$27	\$143	\$8	\$7	\$0	\$187
	LI - School Education	\$0	\$0	\$51	\$0	\$1	\$9	\$14	\$34	\$4	\$0	\$114
	LI - EE Kits	\$0	\$0	\$390	\$0	\$1	\$7	\$23	\$25	\$16	\$0	\$462
	LI - Multifamily - Res	\$0	\$0	\$0	\$770	\$3	\$32	\$172	\$36	\$38	\$0	\$1,051
	LI - New Homes	\$16	\$0	\$0	\$0	\$0	\$1	\$5	\$0	\$1	\$0	\$23
	Subtotal	\$123	\$0	\$441	\$1,530	\$12	\$118	\$687	\$149	\$110	\$0	\$3,070
	Residential Total	\$2,110	\$35	\$2,688	\$1,563	\$49	\$491	\$2,359	\$733	\$371	\$0	\$10,399
C&I Energy Solutions for Business Program - Small ²	Multi Family - SCI	\$0	\$0	\$0	\$518	\$5	\$48	\$256	\$46	\$32	\$0	\$905
	Prescriptive - SCI	\$803	\$146	\$0	\$0	\$6	\$56	\$319	\$35	\$50	\$0	\$1,415
	Prescriptive Other - SCI	\$45	\$0	\$0	\$0	\$1	\$6	\$30	\$8	\$3	\$0	\$93
	Custom - SCI	\$527	\$0	\$0	\$0	\$5	\$54	\$285	\$56	\$34	\$0	\$961
	Energy Management - SCI	\$78	\$0	\$0	\$2,935	\$13	\$129	\$758	\$58	\$147	\$0	\$4,118
	Subtotal	\$1,453	\$146	\$0	\$3,453	\$29	\$292	\$1,648	\$203	\$267	\$0	\$7,491
	Small Commercial & Industrial Total	\$1,453	\$146	\$0	\$3,453	\$29	\$292	\$1,648	\$203	\$267	\$0	\$7,491
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$2
	Prescriptive - LCI	\$789	\$381	\$0	\$0	\$6	\$61	\$357	\$31	\$60	\$0	\$1,686
	Prescriptive Other - LCI	\$33	\$0	\$0	\$0	\$0	\$1	\$7	\$2	\$2	\$0	\$45
	Custom - LCI	\$2,421	\$0	\$0	\$0	\$22	\$219	\$1,286	\$98	\$150	\$0	\$4,195
	Energy Management - LCI	\$159	\$0	\$0	\$494	\$9	\$87	\$516	\$34	\$48	\$0	\$1,348
	Subtotal	\$3,402	\$381	\$0	\$496	\$37	\$368	\$2,167	\$165	\$260	\$0	\$7,276
	Large Commercial & Industrial Total	\$3,402	\$381	\$0	\$496	\$37	\$368	\$2,167	\$165	\$260	\$0	\$7,276
	Non-Residential Total	\$4,855	\$527	\$0	\$3,949	\$66	\$661	\$3,814	\$368	\$527	\$0	\$14,767
	Total	\$6,965	\$562	\$2,688	\$5,512	\$116	\$1,152	\$6,173	\$1,101	\$898	\$0	\$25,166

¹ External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix C, Table 1-3: Program Cost by Program Year

Met-Ed Program Year 15

Program	Sub-Program	Incentives (\$000)					Non-Incentives (\$000)					Totals
		Rebates	Upstream/Midstream Buydown	Kits	Direct Install Materials & Labor	Program Design	Administrative	CSP Delivery Fees	Marketing	EM&V	Other ¹	
Energy Efficient Products Program	Appliance Recycling	\$267	\$0	\$0	\$0	\$10	\$100	\$506	\$140	\$38	\$0	\$1,062
	Appliance Rebate	\$724	\$0	\$0	\$0	\$3	\$28	\$158	\$73	\$36	\$0	\$1,022
	Consumer Electronics	\$0	\$35	\$0	\$0	\$0	\$2	\$13	\$2	\$2	\$0	\$54
	HVAC	\$230	\$0	\$0	\$0	\$4	\$38	\$151	\$96	\$19	\$0	\$538
	Subtotal	\$1,221	\$35	\$0	\$0	\$17	\$169	\$828	\$310	\$95	\$0	\$2,676
Energy Efficient Homes Program	Comprehensive Audits	\$100	\$0	\$0	\$0	\$3	\$27	\$128	\$46	\$11	\$0	\$315
	Behavioral	\$0	\$0	\$0	\$0	\$9	\$91	\$490	\$31	\$23	\$0	\$644
	Multi Family - Res	\$0	\$0	\$0	\$34	\$1	\$10	\$58	\$15	\$4	\$0	\$122
	School Education	\$0	\$0	\$172	\$0	\$2	\$18	\$31	\$83	\$11	\$0	\$317
	EE Kits	\$0	\$0	\$2,075	\$0	\$1	\$14	\$37	\$54	\$81	\$0	\$2,262
	New Homes	\$666	\$0	\$0	\$0	\$4	\$38	\$200	\$44	\$35	\$0	\$988
	Subtotal	\$766	\$0	\$2,247	\$34	\$20	\$197	\$944	\$273	\$166	\$0	\$4,647
Low Income Energy Efficiency Program	Weatherization	\$0	\$0	\$0	\$759	\$2	\$17	\$110	\$11	\$33	\$0	\$932
	LI - Appliances	\$108	\$0	\$0	\$0	\$2	\$24	\$119	\$35	\$11	\$0	\$299
	LI - Behavioral	\$0	\$0	\$0	\$0	\$3	\$27	\$143	\$8	\$7	\$0	\$187
	LI - School Education	\$0	\$0	\$51	\$0	\$1	\$9	\$14	\$34	\$4	\$0	\$114
	LI - EE Kits	\$0	\$0	\$390	\$0	\$1	\$7	\$23	\$25	\$16	\$0	\$462
	LI - Multifamily - Res	\$0	\$0	\$0	\$770	\$3	\$31	\$172	\$36	\$37	\$0	\$1,051
	LI - New Homes	\$16	\$0	\$0	\$0	\$0	\$1	\$5	\$0	\$1	\$0	\$23
Subtotal	\$123	\$0	\$441	\$1,530	\$12	\$116	\$687	\$149	\$109	\$0	\$3,068	
Residential Total		\$2,110	\$35	\$2,688	\$1,563	\$49	\$483	\$2,359	\$733	\$371	\$0	\$10,391
C&I Energy Solutions for Business Program - Small ²	Multi Family - SCI	\$0	\$0	\$0	\$518	\$5	\$47	\$256	\$46	\$32	\$0	\$904
	Prescriptive - SCI	\$803	\$146	\$0	\$0	\$6	\$55	\$319	\$35	\$50	\$0	\$1,414
	Prescriptive Other - SCI	\$45	\$0	\$0	\$0	\$1	\$6	\$30	\$8	\$3	\$0	\$92
	Custom - SCI	\$527	\$0	\$0	\$0	\$5	\$53	\$285	\$56	\$34	\$0	\$960
	Energy Management - SCI	\$78	\$0	\$0	\$2,935	\$13	\$127	\$758	\$58	\$147	\$0	\$4,116
Subtotal	\$1,453	\$146	\$0	\$3,453	\$29	\$287	\$1,648	\$203	\$267	\$0	\$7,486	
Small Commercial & Industrial Total		\$1,453	\$146	\$0	\$3,453	\$29	\$287	\$1,648	\$203	\$267	\$0	\$7,486
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$2
	Prescriptive - LCI	\$789	\$381	\$0	\$0	\$6	\$60	\$357	\$31	\$60	\$0	\$1,685
	Prescriptive Other - LCI	\$33	\$0	\$0	\$0	\$0	\$1	\$7	\$2	\$2	\$0	\$45
	Custom - LCI	\$2,421	\$0	\$0	\$0	\$22	\$215	\$1,286	\$98	\$150	\$0	\$4,191
	Energy Management - LCI	\$159	\$0	\$0	\$494	\$9	\$86	\$516	\$34	\$48	\$0	\$1,346
Subtotal	\$3,402	\$381	\$0	\$496	\$37	\$362	\$2,167	\$165	\$259	\$0	\$7,270	
Large Commercial & Industrial Total		\$3,402	\$381	\$0	\$496	\$37	\$362	\$2,167	\$165	\$259	\$0	\$7,270
Non-Residential Total		\$4,855	\$527	\$0	\$3,949	\$66	\$650	\$3,814	\$368	\$526	\$0	\$14,756
Total		\$6,965	\$562	\$2,688	\$5,512	\$116	\$1,133	\$6,173	\$1,101	\$897	\$0	\$25,146

¹ External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix C, Table 1-4: Program Cost by Program Year

Met-Ed Program Year 16

Program	Sub-Program	Incentives (\$000)					Non-Incentives (\$000)					Totals
		Rebates	Upstream/Midstream Buydown	Kits	Direct Install Materials & Labor	Program Design	Administrative	CSP Delivery Fees	Marketing	EM&V	Other ¹	
Energy Efficient Products Program	Appliance Recycling	\$267	\$0	\$0	\$0	\$10	\$101	\$506	\$140	\$38	\$0	\$1,063
	Appliance Rebate	\$724	\$0	\$0	\$0	\$3	\$29	\$158	\$73	\$36	\$0	\$1,022
	Consumer Electronics	\$0	\$35	\$0	\$0	\$0	\$2	\$13	\$2	\$2	\$0	\$54
	HVAC	\$230	\$0	\$0	\$0	\$4	\$39	\$151	\$96	\$19	\$0	\$539
	Subtotal	\$1,221	\$35	\$0	\$0	\$17	\$171	\$828	\$311	\$96	\$0	\$2,678
Energy Efficient Homes Program	Comprehensive Audits	\$100	\$0	\$0	\$0	\$3	\$27	\$128	\$46	\$11	\$0	\$315
	Behavioral	\$0	\$0	\$0	\$0	\$9	\$92	\$490	\$31	\$23	\$0	\$645
	Multi Family - Res	\$0	\$0	\$0	\$34	\$1	\$10	\$58	\$15	\$4	\$0	\$122
	School Education	\$0	\$0	\$172	\$0	\$2	\$18	\$31	\$83	\$11	\$0	\$317
	EE Kits	\$0	\$0	\$2,075	\$0	\$1	\$14	\$37	\$54	\$81	\$0	\$2,263
	New Homes	\$666	\$0	\$0	\$0	\$4	\$38	\$200	\$44	\$35	\$0	\$988
	Subtotal	\$766	\$0	\$2,247	\$34	\$20	\$199	\$944	\$274	\$166	\$0	\$4,650
Low Income Energy Efficiency Program	Weatherization	\$0	\$0	\$0	\$759	\$2	\$18	\$110	\$11	\$33	\$0	\$933
	LI - Appliances	\$108	\$0	\$0	\$0	\$2	\$24	\$119	\$35	\$11	\$0	\$299
	LI - Behavioral	\$0	\$0	\$0	\$0	\$1	\$13	\$68	\$4	\$3	\$0	\$90
	LI - School Education	\$0	\$0	\$51	\$0	\$1	\$9	\$14	\$34	\$4	\$0	\$114
	LI - EE Kits	\$0	\$0	\$390	\$0	\$1	\$7	\$23	\$25	\$16	\$0	\$462
	LI - Multifamily - Res	\$0	\$0	\$0	\$770	\$3	\$31	\$172	\$36	\$38	\$0	\$1,051
	LI - New Homes	\$16	\$0	\$0	\$0	\$0	\$1	\$5	\$0	\$1	\$0	\$23
	Subtotal	\$123	\$0	\$441	\$1,530	\$11	\$103	\$513	\$146	\$106	\$0	\$2,973
	Residential Total	\$2,110	\$35	\$2,688	\$1,563	\$48	\$474	\$2,284	\$730	\$368	\$0	\$10,301
C&I Energy Solutions for Business Program - Small ²	Multi Family - SCI	\$0	\$0	\$0	\$518	\$5	\$47	\$256	\$47	\$32	\$0	\$905
	Prescriptive - SCI	\$803	\$146	\$0	\$0	\$6	\$55	\$319	\$35	\$50	\$0	\$1,415
	Prescriptive Other - SCI	\$45	\$0	\$0	\$0	\$1	\$6	\$30	\$8	\$3	\$0	\$93
	Custom - SCI	\$527	\$0	\$0	\$0	\$5	\$53	\$285	\$56	\$34	\$0	\$960
	Energy Management - SCI	\$78	\$0	\$0	\$2,935	\$13	\$128	\$758	\$58	\$147	\$0	\$4,118
	Subtotal	\$1,453	\$146	\$0	\$3,453	\$30	\$290	\$1,648	\$204	\$267	\$0	\$7,490
	Small Commercial & Industrial Total	\$1,453	\$146	\$0	\$3,453	\$30	\$290	\$1,648	\$204	\$267	\$0	\$7,490
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$2
	Prescriptive - LCI	\$789	\$381	\$0	\$0	\$6	\$61	\$357	\$31	\$60	\$0	\$1,686
	Prescriptive Other - LCI	\$33	\$0	\$0	\$0	\$0	\$1	\$7	\$2	\$2	\$0	\$45
	Custom - LCI	\$2,421	\$0	\$0	\$0	\$22	\$217	\$1,286	\$99	\$150	\$0	\$4,194
	Energy Management - LCI	\$159	\$0	\$0	\$494	\$9	\$86	\$516	\$35	\$48	\$0	\$1,347
	Subtotal	\$3,402	\$381	\$0	\$496	\$37	\$366	\$2,167	\$167	\$260	\$0	\$7,275
	Large Commercial & Industrial Total	\$3,402	\$381	\$0	\$496	\$37	\$366	\$2,167	\$167	\$260	\$0	\$7,275
	Non-Residential Total	\$4,855	\$527	\$0	\$3,949	\$67	\$656	\$3,814	\$370	\$527	\$0	\$14,766
	Total	\$6,965	\$562	\$2,688	\$5,512	\$116	\$1,130	\$6,099	\$1,101	\$894	\$0	\$25,066

¹ External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix C, Table 1-5: Program Cost by Program Year

Met-Ed Program Year 17

Program	Sub-Program	Incentives (\$000)					Non-Incentives (\$000)					Totals
		Rebates	Upstream/Midstream Buydown	Kits	Direct Install Materials & Labor	Program Design	Administrative	CSP Delivery Fees	Marketing	EM&V	Other ¹	
Energy Efficient Products Program	Appliance Recycling	\$267	\$0	\$0	\$0	\$10	\$101	\$506	\$140	\$38	\$0	\$1,063
	Appliance Rebate	\$724	\$0	\$0	\$0	\$3	\$29	\$158	\$73	\$36	\$0	\$1,022
	Consumer Electronics	\$0	\$35	\$0	\$0	\$0	\$2	\$13	\$2	\$2	\$0	\$54
	HVAC	\$230	\$0	\$0	\$0	\$4	\$39	\$151	\$96	\$19	\$0	\$539
	Subtotal	\$1,221	\$35	\$0	\$0	\$17	\$171	\$828	\$311	\$96	\$0	\$2,678
Energy Efficient Homes Program	Comprehensive Audits	\$100	\$0	\$0	\$0	\$3	\$27	\$128	\$46	\$11	\$0	\$315
	Behavioral	\$0	\$0	\$0	\$0	\$9	\$91	\$490	\$31	\$23	\$0	\$645
	Multi Family - Res	\$0	\$0	\$0	\$34	\$1	\$10	\$58	\$15	\$4	\$0	\$122
	School Education	\$0	\$0	\$172	\$0	\$2	\$18	\$31	\$83	\$11	\$0	\$317
	EE Kits	\$0	\$0	\$2,075	\$0	\$1	\$14	\$37	\$54	\$81	\$0	\$2,263
	New Homes	\$666	\$0	\$0	\$0	\$4	\$38	\$200	\$44	\$35	\$0	\$988
	Subtotal	\$766	\$0	\$2,247	\$34	\$20	\$199	\$944	\$274	\$166	\$0	\$4,650
Low Income Energy Efficiency Program	Weatherization	\$0	\$0	\$0	\$759	\$2	\$18	\$110	\$11	\$33	\$0	\$933
	LI - Appliances	\$108	\$0	\$0	\$0	\$2	\$24	\$119	\$35	\$11	\$0	\$299
	LI - Behavioral	\$0	\$0	\$0	\$0	\$1	\$12	\$61	\$4	\$3	\$0	\$81
	LI - School Education	\$0	\$0	\$51	\$0	\$1	\$9	\$14	\$34	\$4	\$0	\$114
	LI - EE Kits	\$0	\$0	\$390	\$0	\$1	\$7	\$23	\$25	\$16	\$0	\$462
	LI - Multifamily - Res	\$0	\$0	\$0	\$770	\$3	\$31	\$172	\$36	\$38	\$0	\$1,051
	LI - New Homes	\$16	\$0	\$0	\$0	\$0	\$1	\$5	\$0	\$1	\$0	\$23
	Subtotal	\$123	\$0	\$441	\$1,530	\$10	\$102	\$605	\$145	\$106	\$0	\$2,963
	Residential Total	\$2,110	\$35	\$2,688	\$1,563	\$48	\$471	\$2,277	\$730	\$367	\$0	\$10,291
C&I Energy Solutions for Business Program - Small ²	Multi Family - SCI	\$0	\$0	\$0	\$518	\$5	\$47	\$256	\$47	\$32	\$0	\$904
	Prescriptive - SCI	\$803	\$146	\$0	\$0	\$6	\$55	\$319	\$35	\$50	\$0	\$1,414
	Prescriptive Other - SCI	\$45	\$0	\$0	\$0	\$1	\$6	\$30	\$8	\$3	\$0	\$93
	Custom - SCI	\$527	\$0	\$0	\$0	\$5	\$53	\$285	\$56	\$34	\$0	\$960
	Energy Management - SCI	\$78	\$0	\$0	\$2,935	\$13	\$128	\$758	\$58	\$147	\$0	\$4,118
	Subtotal	\$1,453	\$146	\$0	\$3,453	\$30	\$290	\$1,648	\$204	\$267	\$0	\$7,490
	Small Commercial & Industrial Total	\$1,453	\$146	\$0	\$3,453	\$30	\$290	\$1,648	\$204	\$267	\$0	\$7,490
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$2
	Prescriptive - LCI	\$789	\$381	\$0	\$0	\$6	\$61	\$357	\$31	\$60	\$0	\$1,686
	Prescriptive Other - LCI	\$33	\$0	\$0	\$0	\$0	\$1	\$7	\$2	\$2	\$0	\$45
	Custom - LCI	\$2,421	\$0	\$0	\$0	\$22	\$217	\$1,286	\$99	\$150	\$0	\$4,194
	Energy Management - LCI	\$159	\$0	\$0	\$494	\$9	\$86	\$516	\$35	\$48	\$0	\$1,347
	Subtotal	\$3,402	\$381	\$0	\$496	\$37	\$365	\$2,167	\$167	\$260	\$0	\$7,275
	Large Commercial & Industrial Total	\$3,402	\$381	\$0	\$496	\$37	\$365	\$2,167	\$167	\$260	\$0	\$7,275
	Non-Residential Total	\$4,855	\$527	\$0	\$3,949	\$67	\$655	\$3,814	\$370	\$527	\$0	\$14,764
	Total	\$6,965	\$562	\$2,688	\$5,512	\$116	\$1,126	\$6,092	\$1,101	\$894	\$0	\$25,055

¹ External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix C, Table 2: Program Savings by Program Year

Met-Ed		PY13		PY14		PY15		PY16		PY17		Total	
Program	Sub-Program	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW
Energy Efficient Products Program	Appliance Recycling	3,896,947	882	3,896,947	882	3,896,947	882	3,896,947	882	3,896,947	882	19,484,735	4,409
	Appliance Rebate	3,413,839	676	3,413,839	676	3,413,839	676	3,413,839	676	3,413,839	676	17,069,193	3,378
	Consumer Electronics	401,817	457	401,817	457	401,817	457	401,817	457	401,817	457	2,009,085	2,284
	HVAC	1,265,511	120	1,265,511	120	1,265,511	120	1,265,511	120	1,265,511	120	6,327,557	598
	Subtotal	8,978,114	2,134	8,978,114	2,134	8,978,114	2,134	8,978,114	2,134	8,978,114	2,134	44,890,571	10,669
Energy Efficient Homes Program	Comprehensive Audits	87,739	41	175,477	83	175,477	83	175,477	83	175,477	83	789,647	373
	Behavioral	2,823,000	499	5,067,600	908	4,806,600	860	4,493,400	803	4,128,000	737	21,318,600	3,807
	Multi Family - Res	100,245	28	200,490	55	200,490	55	200,490	55	200,490	55	902,204	249
	School Education	907,584	108	907,584	108	907,584	108	907,584	108	907,584	108	4,537,919	540
	EE Kits	9,950,000	1,174	9,950,000	1,174	9,950,000	1,174	9,950,000	1,174	9,950,000	1,174	49,750,000	5,868
	New Homes	1,715,539	748	1,715,539	748	1,715,539	748	1,715,539	748	1,715,539	748	8,577,693	3,738
	Subtotal	15,584,106	2,597	18,016,689	3,075	17,755,689	3,028	17,442,489	2,971	17,077,089	2,904	85,876,063	14,575
	Residential Total	29,419,091	5,495	32,538,975	6,099	32,190,975	6,036	31,390,575	5,890	31,033,875	5,825	156,573,490	29,345
Low Income Energy Efficiency Program	Weatherization	837,399	76	837,399	76	837,399	76	837,399	76	837,399	76	4,186,994	379
	LI - Appliances	827,021	172	827,021	172	827,021	172	827,021	172	827,021	172	4,135,105	862
	LI - Behavioral	619,490	112	1,306,790	237	1,219,790	221	732,590	132	741,290	134	4,619,950	837
	LI - School Education	221,715	30	221,715	30	221,715	30	221,715	30	221,715	30	1,108,573	149
	LI - EE Kits	1,687,500	213	1,687,500	213	1,687,500	213	1,687,500	213	1,687,500	213	8,437,500	1,067
	LI - Multifamily - Res	629,985	149	629,985	149	629,985	149	629,985	149	629,985	149	3,149,926	743
	LI - New Homes	33,762	13	33,762	13	33,762	13	33,762	13	33,762	13	168,808	64
Subtotal	4,856,871	765	5,544,171	890	5,457,171	874	4,969,971	785	4,978,671	787	25,806,856	4,101	
C&I Energy Solutions for Business Program - Small ¹	Multi Family - SCI	407,101	56	465,086	66	465,086	66	465,086	66	465,086	66	2,267,446	319
	Prescriptive - SCI	10,090,589	2,348	10,090,589	2,348	10,090,589	2,348	10,090,589	2,348	10,090,589	2,348	50,452,947	11,741
	Prescriptive Other - SCI	368,269	60	368,269	60	368,269	60	368,269	60	368,269	60	1,841,346	301
	Custom - SCI	3,739,783	676	3,739,783	676	3,739,783	676	3,739,783	676	3,739,783	676	18,698,915	3,378
	Energy Management - SCI	4,812,225	614	9,624,449	1,229	9,624,449	1,229	9,624,449	1,229	9,624,449	1,229	43,310,021	5,529
	Subtotal	19,417,967	3,755	24,288,177	4,378	24,288,177	4,378	24,288,177	4,378	24,288,177	4,378	116,570,674	21,267
Small Commercial & Industrial Total	19,417,967	3,755	24,288,177	4,378	24,288,177	4,378	24,288,177	4,378	24,288,177	4,378	116,570,674	21,267	
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	15,846	4	15,846	4	15,846	4	15,846	4	15,846	4	79,230	19
	Prescriptive - LCI	14,028,099	2,518	14,028,099	2,518	14,028,099	2,518	14,028,099	2,518	14,028,099	2,518	70,140,496	12,591
	Prescriptive Other - LCI	71,066	13	71,066	13	71,066	13	71,066	13	71,066	13	355,332	63
	Custom - LCI	21,159,035	3,475	21,159,035	3,475	21,159,035	3,475	21,159,035	3,475	21,159,035	3,475	105,795,176	17,377
	Energy Management - LCI	2,123,644	502	3,182,291	721	3,182,291	721	3,182,291	721	3,182,291	721	14,852,508	3,384
	Subtotal	37,397,691	6,511	38,456,338	6,731	38,456,338	6,731	38,456,338	6,731	38,456,338	6,731	191,223,043	33,434
Large Commercial & Industrial Total	37,397,691	6,511	38,456,338	6,731	38,456,338	6,731	38,456,338	6,731	38,456,338	6,731	191,223,043	33,434	
Non-Residential Total	56,815,659	10,266	62,744,514	11,109	62,744,514	11,109	62,744,514	11,109	62,744,514	11,109	307,793,716	54,702	
Total	86,234,750	15,761	95,283,489	17,208	94,935,489	17,145	94,135,089	16,999	93,778,389	16,934	464,367,206	84,046	

¹ Includes projected participation of Low Income households living in Multifamily housing.

Appendix C: Table 3, Energy Efficiency as a Resource - Met-Ed

EE&C Plan Phase	EE Installation Period	EE Plan Potential MW Range	DY 23/24 MW Range	DY 24/25 MW Range	DY 25/26 EE MW Range	DY 26/27 EE MW Range	DY 27/28 MW Range	DY 28/29 EE MW Range	DY 29/30 EE MW Range
IV	21/22	2.4 to 4.2	2.4 to 4.2	2.4 to 4.2	2.4 to 4.2	n/a	n/a	n/a	n/a
	22/23	2.4 to 4.2	2.4 to 4.2	2.4 to 4.2	2.4 to 4.2	2.4 to 4.2	n/a	n/a	n/a
	23/24	2.4 to 4.2	n/a	2.4 to 4.2	2.4 to 4.2	2.4 to 4.2	2.4 to 4.2	n/a	n/a
	24/25	2.4 to 4.2	n/a	n/a	2.4 to 4.2	2.4 to 4.2	2.4 to 4.2	2.4 to 4.2	n/a
	25/26	2.4 to 4.2	n/a	n/a	n/a	2.4 to 4.2	2.4 to 4.2	2.4 to 4.2	2.4 to 4.2
EE MW Ranges		12.0 to 18.0	4.8 to 8.4	7.2 to 12.6	9.6 to 16.8	9.6 to 16.8	7.2 to 12.6	4.8 to 8.4	2.4 to 4.2

¹ The MW values provided in Appendix C, Table C-3 are an estimated range of the EE&C Plan Potential PJM EE MW values for each installation period and do not represent the actual EE values to be offered into PJM's capacity market. These estimates are based on projections used in the development of the EE&C Plan, with adjustment for the addition of line losses, eliminating non-PJM eligible measures, and Company experience with PJM EE evaluations. These estimates are presented for information purposes only and are subject to change for reasons, including but not limited to, changes in program participation, baselines, measurement and verification protocols or costs and PJM rules. The Company will determine the actual EE Resource offers applicable to each PJM auction starting with the 2023/24 BRA scheduled to occur December 2021.

**Appendix D:
Calculation Methods and Assumptions**

Appendix D, Table 1: Costs Assumptions

Cost Assumptions

Program cost elements are categorized into specific costs and common costs. Specific costs include program direct administrative and incentive costs, including: 1) Incentives, Delivery, Marketing provided by CSPs, and Evaluation, Measurement and Verification (EM&V). Specific costs are calculated based on measure, subprogram and or program level estimates, and summed to the subprogram and program level. Common costs include portfolio administrative costs, including: 1) Program Design, 2) Administration, 3) Marketing provided by the utility, and 4) Other. Common costs are estimated at the State level and allocated to the Company based on the Company's savings and targets, and allocated to each program based on the ratio of program specific administrative costs (CSP Delivery and Marketing costs). The following details the assumptions for each cost element used in the budget tables located throughout the plan:

Cost Elements	Description
Incentives	Incentives includes program specific costs for 1) rebates paid to customers, 2) upstream/midstream buydowns, 3) material cost of giveaways (e.g. kits) and 4) program direct install labor and material cost provided to customers. Incentives were calculated based on measure assumptions and participation projections, and summed to the subprogram and program level.
Program Design	Program Design includes common costs associated with the development of the plan and programs including costs incurred by the utility for employee labor software fees for plan development and research and development related association fees. Program Design costs were based on actual costs or Company estimates.
Administration	Administration costs includes common costs incurred by the utility for employee labor and expenses to oversee, administer and manage the portfolio, costs to develop and maintain a data collection, tracking and reporting system, and to perform duties associated with activities such as regulatory reporting or meetings to support the plan (e.g. Stakeholder meetings, Program Evaluation Group meetings). Administration costs were estimated based on actual costs or Company estimates.
Delivery	Delivery costs includes program specific costs for implementation of the programs or subprograms. Program Delivery costs were identified by two components, (1) fixed program/sub-program, and (2) variable unit cost. Includes costs for the management and implementation of programs or subprograms, including staffing, websites, data collection and transfers, call centers, incentive processing, quality assurances and control processes, and other activities supporting successful program implementation. Program Delivery costs were informed by experience for similar programs operated by the Company or Company affiliates in Pennsylvania or other jurisdictions, or by vendor proposals or actual costs. These costs were estimated for each subprogram based on measure participation where applicable, and summed to the program level.
Marketing	Marketing costs includes common costs incurred by the utility and program specific costs incurred by CSPs for marketing the plan, programs and subprograms. Marketing costs were informed by Company estimates of utility and CSP pricing for the plan, program or subprograms. Utility marketing was based on estimated annual costs. CSP marketing costs were identified by two components, (1) fixed program/sub-program and (2) variable unit cost. Includes costs associated with developing and providing marketing/promotional strategies, advertising space and materials.
EM&V	EM&V costs includes program specific costs for EM&V of the program and subprograms. EM&V costs are based on CSP contract pricing. Includes costs for evaluation, measurement and verification activities performed by the Company's independent third-party evaluator. These funds are spent on evaluation, surveys, M&V processes, data transfer responsibilities and participation in evaluation and working group meetings.
Other	Other costs includes other outside services common costs associated with the development and regulatory review process of the plan, including third-party consulting and outside legal fees. Other costs were based on Company estimates.

Appendix D, Table 2: Measure Assumptions¹

Met-Ed																			
Program	Sub-Program	Measure	Measure Life	Verified kWh	Verified kW	NTG	RR kWh	RR kW	Incremental Cost	Modeled Rebate	O&M Benefit (\$/Unit/Yr)	Gas Savings (MMBTu/Yr)	Water Savings (Gal/Yr)	Savings Assumption	Savings Source	Incremental Cost Source			
Energy Efficient Products Program	Appliance Recycling	Freezer Recycling	5	691	0.112	0.47	1.00	1.00	\$0	\$58	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB			
		Refrigerator Recycling	6	944	0.152	0.47	1.00	1.00	\$0	\$58	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB			
		Room Air Conditioner Recycling	4	113	0.324	0.47	1.00	1.00	\$0	\$35	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB			
		Dehumidifier Recycling	5	500	0.173	0.47	1.00	1.00	\$0	\$35	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB			
		Clothes Washer - Level 1	11	117	0.012	0.50	1.15	1.09	\$187	\$25	\$0.00	0.250	1,495	0	1 Unit	PA TRM	PA IC DB		
		Clothes Washer - Level 2	11	166	0.017	0.50	1.15	1.09	\$187	\$25	\$0.00	0.250	1,495	0	1 Unit	PA TRM	PA IC DB		
		Clothes Washer - Level 3	11	178	0.019	0.50	1.15	1.09	\$187	\$25	\$0.00	0.250	1,495	0	1 Unit	PA TRM	PA IC DB		
		Refrigerator - Level 1	14	46	0.008	0.50	1.15	1.09	\$75	\$30	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB		
		Refrigerator - Level 2	14	89	0.014	0.50	1.15	1.09	\$75	\$30	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB		
		Refrigerator - Level 3	14	118	0.018	0.50	1.15	1.09	\$75	\$30	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB		
		Freezer	11	36	0.006	0.50	1.15	1.09	\$43	\$26	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB		
		Clothes Dryer	12	19	0.002	0.50	1.15	1.09	\$35	\$30	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB		
		Air Purifier / Cleaner	9	785	0.085	0.50	1.15	1.09	\$74	\$25	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB		
		Room Air Conditioner - Level 1	9	20	0.039	0.50	1.15	1.09	\$65	\$25	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB		
		Room Air Conditioner - Level 2	9	20	0.039	0.50	1.15	1.09	\$65	\$30	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB		
		Dehumidifier	12	240	0.056	0.50	1.15	1.09	\$11	\$25	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB		
		Water Heater	10	1,453	0.096	0.50	1.15	1.09	\$651	\$500	\$0.00	0.000	0	0	1-50 gal unit	PA TRM	PA IC DB		
		Pool Pump Variable Speed	10	1,620	0.388	0.50	1.15	1.09	\$421	\$300	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB		
		Dishwasher	10	26	0.003	0.50	1.15	1.09	\$316	\$25	\$0.00	0.000	0	210	1 unit	PA TRM	PA IC DB		
		Water Cooler	10	235	0.025	0.50	1.15	1.09	\$49	\$25	\$0.00	0.000	0	0	1 unit	PA TRM	PA IC DB		
	EV Charging Cord - Level 2 - Res	10	36	0.004	0.50	1.15	1.09	\$500	\$50	\$0.00	0.000	0	0	1 Unit	Energy Star	Co Assumption			
	Smart Thermostat - Address	11	230	0.000	0.50	1.15	1.09	\$140	\$50	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB			
	Residential Occupancy Sensor	10	33	0.000	0.50	1.15	1.09	\$26	\$5	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB			
	Ceiling Fan	15	47	0.012	0.50	1.15	1.09	\$15	\$35	\$0.00	0.000	0	0	1 unit	PA TRM	PA IC DB			
	Monitor	4	27	0.004	0.58	1.14	1.14	\$4	\$3	\$0.00	0.000	0	0	1 unit	PA TRM	PA IC DB			
	Computer	4	136	0.014	0.58	1.14	1.14	\$21	\$5	\$0.00	0.000	0	0	1 unit	PA TRM	PA IC DB			
	Imaging	6	41	0.006	0.58	1.14	1.14	\$14	\$5	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB			
	Smart Strip Plug Outlet	5	131	0.015	0.58	1.14	1.14	\$41	\$13	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB			
	TV	6	87	0.239	0.58	1.14	1.14	\$3	\$5	\$0.00	0.000	0	0	1 unit	MA TRM	MA TRM			
	Sound Bar	7	30	0.020	0.58	1.14	1.14	\$5	\$5	\$0.00	0.000	0	0	1 Unit	MA TRM	MA TRM			
	Smart Home	15	5	0.001	0.58	1.14	1.14	\$14	\$5	\$0.00	0.000	0	0	1 lamp	MA TRM	MA TRM			
	HVAC	Heat Pump - Level 2	15	2,848	0.088	0.52	1.10	1.15	\$508	\$250	\$0.00	0.000	0	0	1-2.75 ton unit	PA TRM	PA IC DB		
		Heat Pump - Level 3	15	3,507	0.088	0.52	1.10	1.15	\$1,423	\$500	\$0.00	0.000	0	0	1-2.75 ton unit	PA TRM	PA IC DB		
		Central Air Conditioner - Level 2	15	354	0.198	0.52	1.10	1.15	\$1,059	\$200	\$0.00	0.000	0	0	1-2.75 Ton Unit	PA TRM	PA IC DB		
		Central Air Conditioner - Level 3	15	496	0.198	0.52	1.10	1.15	\$1,059	\$200	\$0.00	0.000	0	0	1-2.75 Ton Unit	PA TRM	PA IC DB		
		Ductless Mini-Split Heat Pump - Level 3	15	637	0.086	0.52	1.10	1.15	\$498	\$200	\$0.00	0.000	0	0	1-1.5 ton unit	PA TRM	PA IC DB		
		PTAC - Level 2 - Multi Family	15	204	0.136	0.52	1.10	1.15	\$454	\$150	\$0.00	0.000	0	0	1-1.25 Ton Unit	PA TRM	PA IC DB		
		PTAC - Level 2 - Multi Family	15	196	0.052	0.52	1.10	1.15	\$363	\$225	\$0.00	0.000	0	0	1-1.25 Ton Unit	PA TRM	PA IC DB		
		Heat Pump - Water & Geot - ES Tier 3	15	3,401	0.616	0.52	1.10	1.15	\$10,893	\$650	\$0.00	0.000	0	0	1-3 Ton Unit	PA TRM	PA IC DB		
		Furnace Fan (Retrofit or New to ECM)	15	134	0.048	0.52	1.10	1.15	\$242	\$150	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB		
		Smart Thermostat - HVAC	11	220	0.000	0.52	1.10	1.15	\$140	\$75	\$0.00	0.000	0	0	1 Unit controlling 2.5 Ton CAC	PA TRM	PA IC DB		
		HVAC - Custom	3	88	0.014	0.52	1.10	1.15	\$113	\$50	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB		
		Circulating Pump	15	175	0.000	0.52	1.10	1.15	\$38	\$30	\$0.00	0.000	0	0	1 unit	PA TRM	PA IC DB		
		IHE Bathroom Fans	15	39	0.005	0.52	1.10	1.15	\$44	\$10	\$0.00	0.000	0	0	1-20 CFM unit	MA TRM	MA TRM		
		HVAC Quality Install	15	38	0.005	0.52	1.10	1.15	\$0	\$25	\$0.00	0.000	0	0	1 Unit	PA TRM	Co Assumption		
		Ductless Mini-Split A/C	15	157	0.086	0.52	1.10	1.15	\$498	\$200	\$0.00	0.000	0	0	1-1.5 ton unit	PA TRM	PA IC DB		
		Heat Pump (Air-Wtr) w/ Domestic Hot Water	15	3,507	0.088	0.52	1.10	1.15	\$1,423	\$400	\$0.00	0.000	0	0	1-2.75 ton unit	PA TRM	PA IC DB		
		Energy Efficient Homes Program	Comprehensive Audits	Comprehensive Audit	9	877	0.379	1.00	1.00	0.96	\$966	\$500	\$0.00	0.000	0	1 - Audit w/ DI & Wgtd Retrofits	Actuals	Actuals	
			Multi Family - Res	MF - Tenant - DI - Res	15	225	0.025	1.00	1.00	0.96	\$200	\$140	\$0.00	0.000	0	0	1 Tenant Space	Actuals	Actuals
				MF - Tenant - Prescriptive - Res	13	79	0.010	1.00	1.00	0.96	\$207	\$50	\$0.00	0.000	0	0	1 Avg Appliance	PA TRM	PA IC DB
				MF - Tenant - Custom - Res	15	275	0.114	1.00	1.00	0.96	\$269	\$125	\$0.00	0.000	0	0	1.5 Ton Unit	PA TRM	PA IC DB
	MF - Common - Prescriptive - Res			14	274	0.010	1.00	1.00	0.96	\$82	\$50	\$0.00	0.000	0	0	1 Avg Light	PA TRM	PA IC DB	
	MF - Common - Custom - Res			15	9,822	2.784	1.00	1.00	0.96	\$2,947	\$540	\$0.00	0.000	0	0	1 Project	Actuals	Actuals	
	MF - Common - DI - Res		15	5,171	0.595	1.00	1.00	0.96	\$1,477	\$1,034	\$0.00	0.000	0	0	1 Common Space	Actuals	Actuals		
	School Education		EE Kits	12	199	0.021	0.72	1.00	1.00	\$42	\$42	\$0.00	0.000	0	0	1 Wgtd Avg Kit	PA TRM	Co Assumption	
	Behavioral		On-Line Audit	1	130	0.020	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	0	Per HH	EE Consultant	N/A	
			Behavioral 2021	1	62	0.010	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	0	Per HH	CSP	N/A	
			Behavioral 2022	1	71	0.013	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	0	Per HH	CSP	N/A	
			Behavioral 2023	1	71	0.012	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	0	Per HH	CSP	N/A	
			Behavioral 2024	1	65	0.011	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	0	Per HH	CSP	N/A	
	Behavioral 2025		1	58	0.010	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	0	Per HH	CSP	N/A		
	New Homes		NC - Townhouse and duplex units	15	1,878	0.606	0.73	0.85	0.85	\$1,185	\$652	\$0.00	0.696	4,010	0	NC Townhouse and Duplex	PA TRM	Co Assumption	
			NC - Two-on-Two condominium units	15	1,422	0.484	0.73	0.85	0.85	\$1,004	\$552	\$0.00	0.696	4,010	0	NC Two on Two Cond Units	PA TRM	Co Assumption	
			NC - Single-family detached units	15	2,780	1.136	0.73	0.85	0.85	\$1,962	\$1,079	\$0.00	0.696	4,010	0	NC Single Family Detached	PA TRM	Co Assumption	
			NC - Multi Family Low Rise	15	1,324	0.331	0.73	0.85	0.85	\$934	\$514	\$0.00	0.696	4,010	0	NC MultiFamily Low Rise	PA TRM	Co Assumption	
NC - Manufactured Housing			15	1,739	0.366	0.73	0.85	0.85	\$1,228	\$675	\$0.00	0.696	4,010	0	NC Mfg Housing	PA TRM	Co Assumption		
NC - Multi Family High Rise	15		1,324	0.331	0.73	0.85	0.85	\$934	\$514	\$0.00	0.700	4,010	0	NC MultiFamily High Rise	PA TRM	Co Assumption			
Low Income Energy Program	Weatherization	Weatherization (WARM PLUS)	12	969	0.097	1.00	1.00	1.00	\$969	\$969	\$0.00	0.000	0	0	Per HH	Actuals	N/A		
		WARM Extra Measures	12	595	0.042	1.00	1.00	1.00	\$595	\$595	\$0.00	0.000	0	0	Per HH	Actuals	N/A		
	Freezer Recycling - LI	5	691	0.112	1.00	1.00	1.00	\$0	\$88	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB			
	Refrigerator Recycling - LI	6	944	0.152	1.00	1.00	1.00	\$0	\$88	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB			
	Room Air Conditioner Recycling - LI	4	113	0.324	1.00	1.00	1.00	\$0	\$65	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB			
	Dehumidifier Recycling - LI	5	500	0.173	1.00	1.00	1.00	\$0	\$65	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB			
	Clothes Washer - Level 1	11	117	0.012	1.00	1.15	1.09	\$187	\$60	\$0.00	0.250	1,495	0	1 Unit	PA TRM	PA IC DB			
	Clothes Washer - Level 2	11	166	0.017	1.00	1.15	1.09	\$187	\$60	\$0.00	0.250	1,495	0	1 Unit	PA TRM	PA IC DB			
	Clothes Washer - Level 3	11	178	0.019	1.00	1.15	1.09	\$187	\$60	\$0.00	0.250	1,495	0	1 Unit	PA TRM	PA IC DB			
Refrigerator - Level 1	14	46	0.008	1.00	1.15	1.09	\$75	\$60	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB				

Appendix D, Table 2: Measure Assumptions¹

Met-Ed																
Program	Sub-Program	Measure	Measure Life	Verified kWh	Verified kW	NTG	RR kWh	RR kW	Incremental Cost	Modeled Rebate	O&M Benefit (\$/UnitYr)	Gas Savings (MMBTu/Yr)	Water Savings (Gal/Yr)	Savings Assumption	Savings Source	Incremental Cost Source
Low Income Energy Efficiency Program	LI - Appliances	Freezer	11	36	0.006	1.00	1.15	1.09	\$43	\$55	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Clothes Dryer	12	19	0.002	1.00	1.15	1.09	\$358	\$80	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Air Purifier / Cleaner	9	785	0.085	1.00	1.15	1.09	\$74	\$55	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Room Air Conditioner - Level 1	9	20	0.039	1.00	1.15	1.09	\$65	\$55	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Room Air Conditioner - Level 2	9	20	0.039	1.00	1.15	1.09	\$65	\$55	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Dehumidifier	12	240	0.056	1.00	1.15	1.09	\$11	\$55	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Water Heater	-10	-4,463	-0.006	-4.00	-1.16	-3.06	\$661	\$765	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Pool Pump - Variable Speed	-10	-1,625	-0.388	-3.00	-1.16	-3.06	\$421	\$346	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Dishwasher	10	26	0.003	1.00	1.15	1.09	\$38	\$55	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Water Cooler	-10	-235	-0.025	-1.00	-1.15	-3.03	\$43	\$55	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
	EV Charging Cord - Level 2 - Res	-10	-26	-0.004	-4.00	-1.16	-3.06	\$600	\$80	\$0.00	0.000	0	1 Unit	Energy Star	Co Assumption	
	Smart Thermostat - Appliances	11	230	0.000	1.00	1.15	1.09	\$140	\$80	\$0.00	0.000	0	1 Unit	controlling 2.5 Ton CAC	PA TRM	PA IC DB
	School Education - LI	15	211	0.026	1.00	1.00	1.00	\$49	\$49	\$0.00	0.000	0	1 Wgtd Avg Kit	PA TRM	Co Assumption	
	LI - EE Kits	12	225	0.026	1.00	1.00	1.00	\$52	\$52	\$0.00	0.000	0	1 Wgtd Avg Kit	PA TRM	Co Assumption	
	LI - Behavioral	On-Line Audit - LI	1	130	0.020	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	EE Consultant	N/A	
	Behavioral 2021 - LI	1	84	0.011	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A		
	Behavioral 2022 - LI	1	77	0.013	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A		
	Behavioral 2023 - LI	1	72	0.012	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A		
	Behavioral 2024 - LI	1	86	0.014	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A		
	Behavioral 2025 - LI	1	97	0.016	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A		
	LI - Multifamily - Res	MF - Tenant - DI - Res - LI	12	1,199	0.200	1.00	1.00	\$1,739	\$1,739	\$0.00	0.000	0	1 Tenant Space	Actuals	N/A	
	MF - Tenant - Prescriptive - Res - LI	14	79	0.010	1.00	1.00	\$99	\$119	\$0.00	0.000	0	1 Avg Appliance	Actuals	N/A		
	MF - Tenant - Custom - Res - LI	15	275	0.119	1.00	1.00	\$410	\$410	\$0.00	0.000	0	1.5 Ton Unit	PA TRM	N/A		
	MF - Common - Prescriptive - Res - LI	14	274	0.010	1.00	1.00	\$410	\$410	\$0.00	0.000	0	1 Avg Light	PA TRM	N/A		
	MF - Common - Custom - Res - LI	15	9,822	2.900	1.00	1.00	\$14,733	\$14,733	\$0.00	0.000	0	1 Project	Actuals	N/A		
	LI - New Homes	MF - Common - DI - Res - LI	12	37,496	0.606	1.00	0.90	\$36,245	\$36,245	\$0.00	0.000	0	1 Common Space	Actuals	N/A	
	NC - Townhouse and duplex units - LI	15	1,678	0.606	1.00	0.85	0.85	\$1,185	\$790	\$0.00	0.696	4.010	NC Townhouse and Duplex	PA TRM	Co Assumption	
NC - Two-on-Two condominium units - LI	15	1,422	0.484	1.00	0.85	0.85	\$1,004	\$670	\$0.00	0.696	4.010	NC Two on Two Cond Units	PA TRM	Co Assumption		
NC - Single family detached units - LI	15	2,780	1.136	1.00	0.85	0.85	\$1,962	\$1,300	\$0.00	0.696	4.010	NC Single Family Detached	PA TRM	Co Assumption		
NC - Family Low Rise - LI	15	1,324	0.205	1.00	0.85	0.85	\$934	\$625	\$0.00	0.700	4.010	NC Multifamily Low Rise	PA TRM	Co Assumption		
NC - Manufactured Housing - LI	15	1,739	0.366	1.00	0.85	0.85	\$1,228	\$815	\$0.00	0.696	4.010	NC Mfg Housing	PA TRM	Co Assumption		
NC - Multi Family High Rise - LI	15	1,324	0.331	1.00	0.85	0.85	\$934	\$625	\$0.00	0.700	4.010	NC Multifamily High Rise	PA TRM	Co Assumption		
Multi Family - SCI	MF - Tenant - DI - SCI - LI	12	1,199	0.200	1.00	1.00	\$1,619	\$1,619	\$0.00	0.000	0	1 Tenant Space	Actuals	N/A		
MF - Tenant - Prescriptive - SCI - LI	14	79	0.010	1.00	1.00	\$99	\$107	\$0.00	0.000	0	1 Avg Appliance	Actuals	N/A			
MF - Tenant - Custom - SCI - LI	15	275	0.119	1.00	1.00	\$269	\$269	\$0.00	0.000	0	1.5 Ton Unit	PA TRM	N/A			
MF - Common - Prescriptive - SCI - LI	14	274	0.010	1.00	1.00	\$82	\$82	\$0.00	0.000	0	1 Avg Light	PA TRM	N/A			
MF - Common - Custom - SCI - LI	15	9,822	2.900	1.00	1.00	\$14,733	\$14,733	\$0.00	0.000	0	1 Project	Actuals	N/A			
MF - Common - DI - SCI - LI	12	37,496	0.606	1.00	0.96	0.96	\$32,495	\$32,495	\$0.00	0.000	0	1 Common Space	Actuals	N/A		
MF - Tenant - DI - SCI	15	225	0.025	1.00	1.00	\$200	\$140	\$0.00	0.000	0	1 Tenant Space	Actuals	N/A			
MF - Tenant - Prescriptive - SCI	13	79	0.010	1.00	1.00	\$207	\$50	\$0.00	0.000	0	1 Avg Appliance	PA TRM	PA IC DB			
MF - Tenant - Custom - SCI	15	275	0.114	1.00	1.00	\$269	\$125	\$0.00	0.000	0	1.5 Ton Unit	PA TRM	PA IC DB			
MF - Common - Prescriptive - SCI	14	274	0.010	1.00	1.00	\$82	\$50	\$0.00	0.000	0	1 Avg Light	PA TRM	PA IC DB			
MF - Common - Custom - SCI	15	9,822	2.784	1.00	1.00	\$2,947	\$540	\$0.00	0.000	0	1 Project	Actuals	N/A			
MF - Common - DI - SCI	15	5,171	0.595	1.00	1.00	\$1,477	\$1,034	\$0.00	0.000	0	1 Common Space	Actuals	N/A			
Prescriptive - SCI	Air Conditioning - Level 1 <=5.4 Tn - SCI	15	778	0.392	0.51	1.00	0.90	\$1,358	\$195	\$0.00	0.000	0	1.5 ton unit	PA TRM	PA IC DB	
Air Conditioning - Level 1 >5.4 & 20 Tn - SCI	15	729	0.422	0.51	1.00	0.90	\$1,014	\$185	\$0.00	0.000	0	1- 11 ton unit	PA TRM	PA IC DB		
Air Conditioning - Level 1 >20 Tn - SCI	15	1,886	0.825	0.51	1.00	0.90	\$99	\$475	\$0.00	0.000	0	1- 20 ton unit	PA TRM	PA IC DB		
Heat Pump - Level 1 <=5.4 Tn - SCI	15	985	0.242	0.51	1.00	0.90	\$1,358	\$250	\$0.00	0.000	0	1.5 ton unit	PA TRM	PA IC DB		
Heat Pump - Water & GeoT - ES Tier 3 - SCI	15	2,295	0.032	0.51	1.00	0.90	\$8,802	\$575	\$0.00	0.000	0	1.5 ton unit	PA TRM	PA IC DB		
Ductless Mini-Split HP - Level 3 - SCI	15	742	0.060	0.51	1.00	0.90	\$514	\$185	\$0.00	0.000	0	1-1.5 ton unit	PA TRM	PA IC DB		
PTAC - SCI	15	94	0.041	0.51	1.00	0.90	\$363	\$25	\$0.00	0.000	0	1- 1 ton unit	PA TRM	PA IC DB		
PTHP - SCI	15	180	0.041	0.51	1.00	0.90	\$363	\$50	\$0.00	0.000	0	1- 1 ton unit	PA TRM	PA IC DB		
Room Air Conditioner - SCI	9	75	0.107	0.51	1.00	0.90	\$0	\$20	\$0.00	0.000	0	1-1 ton unit	PA TRM	PA IC DB		
Smart Thermostat - Rebate - SCI	8	183	0.000	0.51	1.00	0.90	\$204	\$50	\$0.00	0.000	0	1-5 Ton Unit	MA TRM	MA TRM		
HVAC - Custom - SCI	15	36,691	5.205	0.51	1.00	0.90	\$11,007	\$9,175	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption		
Circulating Pump (Mid Strm) - SCI	15	159	0.000	0.51	1.00	0.90	\$38	\$40	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB		
HVAC - Maintenance - SCI	10	360	0.106	0.51	1.00	0.90	\$175	\$90	\$0.00	0.000	0	1.5-Ton Unit	PA TRM	Co Assumption		
Furnace Fan (Retrofit or New to ECM) - SCI	15	122	0.038	0.51	1.00	0.90	\$242	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
Lighting Control (Daylight & Occupancy) - SCI	8	427	0.104	0.70	0.98	0.96	\$97	\$35	\$0.00	0.000	0	1 unit controller	PA TRM	PA IC DB		
Linear Fluorescent - SCI	10	119	0.016	0.70	0.98	0.96	\$6	\$10	\$0.00	0.000	0	1-3 lamp fixture	PA TRM	MA TRM		
LED Linear - SCI	15	133	0.018	0.70	0.98	0.96	\$31	\$11	\$0.92	0.000	0	1- 4 lamp trougher	PA TRM	PA IC DB		
LED Channel Signage - SCI	15	369	0.026	0.70	0.98	0.96	\$35	\$30	\$0.46	0.000	0	Per LF of Letter	PA TRM	Co Assumption		
Exit Sign - SCI	15	163	0.019	0.70	0.98	0.96	\$18	\$13	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
LED Fixture External - SCI	15	561	0.000	0.70	0.98	0.96	\$203	\$42	\$2.06	0.000	0	1 Unit	PA TRM	PA IC DB		
LED Fixture Internal - SCI	15	133	0.021	0.70	0.98	0.96	\$40	\$11	\$2.61	0.000	0	1 Unit	PA TRM	PA IC DB		
LED Lamp - SCI	14	25	0.004	0.70	0.98	0.96	\$5	\$2	\$0.50	0.000	0	1 Unit	PA TRM	PA IC DB		
Lighting - Other - SCI	15	21,560	4.224	0.70	0.98	0.96	\$6,600	\$1,760	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption		
Street & Area Lighting (Customer Owned) - SCI	12	592	0.000	0.70	0.98	0.96	\$173	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
LED Reach in Refrig / Frzr Light - SCI	8	602	0.090	0.70	0.98	0.96	\$59	\$50	\$1.73	0.000	0	1 Door	PA TRM	PA IC DB		
Lighting - Custom - SCI	15	21,560	4.224	0.70	0.98	0.96	\$6,600	\$1,760	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption		
Network Lighting Control - SCI	8	2	0.000	0.70	0.98	0.96	\$1	\$0	\$0.00	0.000	0	Per sq-ft of building lighting controlled	PA TRM	PA IC DB		
Linear Lamp - MS - SCI	15	96	0.006	0.70	1.00	1.00	\$7	\$2	\$0.46	0.000	0	1- Unit	PA TRM	PA IC DB		
High/Low Bay Lamp - MS - SCI	12	993	0.163	0.70	1.00	1.00	\$162	\$80	\$2.57	0.000	0	1- Unit	PA TRM	PA IC DB		
LED Fixture - MS - SCI	15	88	0.022	0.70	1.00	1.00	\$72	\$7	\$0.92	0.000	0	1- Unit	PA TRM	PA IC DB		
ECM Evap Fan Motor - SCI	15	1,575	0.162	0.51	1.00	0.90	\$227	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
Evap Fan Controls - SCI	10	1,278	0.131	0.51	1.00	0.90	\$332	\$100	\$0.00	0.000	0	1 Unit	PA TRM	MA TRM		
Refrigerator - Reach In - SCI	12	453	0.047	0.51	1.00	0.90	\$729	\$65	\$0.00	0.000	0	1-30CF Unit	PA TRM	MA TRM		
Freezer - Reach In - SCI	12	850	0.087	0.51	1.00	0.90	\$977	\$65	\$0.00	0.000	0	1-30CF Unit	PA TRM	PA IC DB		
Refrigerated Case Cover - SCI	5	44	0.000	0.51	1.00	0.90	\$38	\$10	\$0.00	0.000	0	Per LF of Case	PA TRM	PA IC DB		
Anti Sweat Heater Controls - SCI	12	706	0.071	0.51	1.00	0.90	\$418	\$30	\$0.00	0.000	0	1-unit	PA TRM	MA TRM		

Appendix D, Table 2: Measure Assumptions¹

Met-Ed																
Program	Sub-Program	Measure	Measure Life	Verified kWh	Verified kW	NTG	RR kWh	RR kW	Incremental Cost	Modeled Rebate	O&M Benefit (\$/Unit/Yr)	Gas Savings (MMBTU/Yr)	Water Savings (Gcu/Yr)	Savings Assumption	Savings Source	Incremental Cost Source
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Strip Curtain - SCI	4	177	0.020	0.51	1.00	0.90	\$10	\$2	\$0.00	0.000	0	Per SF	PA TRM	PA IC DB
		Ice Machine - SCI	8	479	0.081	0.51	1.00	0.90	\$378	\$50	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB
		Beverage Vending Machine - Controls - SCI	5	1,410	0.000	0.51	1.00	0.90	\$180	\$30	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		Beverage Vending Machine - Energy Star - SCI	5	1,410	0.000	0.51	1.00	0.90	\$180	\$50	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		Steam Cooker - SCI	12	14,105	2,820	0.51	1.00	0.90	\$325	\$250	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		Fryer - SCI	12	2,456	0.401	0.51	1.00	0.90	\$1,038	\$200	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB
		Griddle - SCI	12	2,596	0.480	0.51	1.00	0.90	\$950	\$200	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB
		Hot Food Holding Cabinet - SCI	12	1,730	0.256	0.51	1.00	0.90	\$421	\$250	\$0.00	0.000	0	1-15 CU, FT. unit	PA TRM	PA IC DB
		Combination Oven - SCI	12	13,134	3,354	0.51	1.00	0.90	\$2,612	\$600	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		Convection Oven - SCI	12	1,937	0.358	0.51	1.00	0.90	\$539	\$400	\$0.00	0.000	0	1-full size unit	PA TRM	PA IC DB
		Dishwasher - SCI	10	3,014	0.372	0.51	1.00	0.90	\$882	\$200	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		Induction Warmer/Rethermalizer Well - SCI	15	400	0.041	0.51	1.00	0.90	\$500	\$200	\$0.00	0.000	0	1-Two well unit	Co Assumption	Co Assumption
		Coffee Brewer - SCI	15	1,331	0.137	0.51	1.00	0.90	\$200	\$100	\$0.00	0.000	0	1-large batch Type II Unit	Energy Star	Co Assumption
		Pre-Rinse Sprayer - SCI	8	478	0.074	0.51	1.00	0.90	\$6	\$5	\$0.00	0.000	0	1-unit	PA TRM	Co Assumption
		Agricultural Process Lighting	15	2,216	0.189	0.50	1.00	0.85	\$950	\$222	\$2.31	0.000	0	1 Unit	PA TRM	Co Assumption
		Auto Milker Takeoff	10	434	0.063	0.50	1.00	0.85	\$200	\$90	\$0.00	0.000	0	Per Unit	PA TRM	Co Assumption
		Dairy Scroll Compressor	15	974	0.141	0.50	1.00	0.85	\$1,000	\$500	\$0.00	0.000	0	Per Unit	PA TRM	Co Assumption
		Dairy Ventilation Fans	15	974	0.163	0.50	1.00	0.85	\$250	\$100	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		Heat Reclaimer	15	7,860	1.136	0.50	1.00	0.85	\$4,300	\$1,000	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		High Volume Low Speed Fan	15	9,963	3,829	0.50	1.00	0.85	\$816	\$600	\$0.00	0.000	0	1 Unit	PA TRM	WI TRM
		Livestock Waterer	10	521	0.000	0.50	1.00	0.85	\$510	\$100	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		Dairy Ync Pump VSD Control	15	19,394	3,528	0.50	1.00	0.85	\$3,400	\$1,000	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		Low Pressure Irrigation	5	3,378	7,465	0.50	1.00	0.85	\$2,095	\$250	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		Custom - Agricultural	15	9,842	0.955	0.50	1.00	0.85	\$2,953	\$1,000	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		Dairy Refrigeration Tune-Up	1	262	0.028	0.50	1.00	0.85	\$194	\$50	\$0.00	0.000	0	1 Refrigerator Cooler	WI TRM	WI TRM
		Engine Block Heater Timer	15	738	0.028	0.50	1.00	0.85	\$25	\$10	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		Street Lighting (Tariff / Utility Owned(EMU))	12	604	0.000	1.00	1.00	0.96	\$173	\$40	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Street Lighting (Tariff / Customer Owned(MU))	12	604	0.000	1.00	1.00	0.96	\$173	\$40	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Refrigerator Recycling - SCI	6	964	0.132	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Freezer Recycling - SCI	4	670	0.047	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Room Air Conditioner Recycling - SCI	4	113	0.213	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Dehumidifiers Recycling - SCI	5	467	0.147	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		EV Charging Cord - Level 2 - SCI	10	31	0.003	0.50	1.00	0.85	\$500	\$50	\$0.00	0.000	0	1 Unit	Energy Star	Co Assumption
		Clothes Washer Level 1&2 - SCI	11	144	0.018	0.50	1.00	0.85	\$147	\$25	\$0.00	0.256	1,495	1 Unit	PA TRM	PA IC DB
		Clothes Washer Level 3 - SCI	11	155	0.015	0.50	1.00	0.85	\$187	\$25	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB
		Clothes Dvrer - SCI	12	16	0.002	0.50	1.00	0.85	\$358	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Refrigerator Level 1& 2 - SCI	14	77	0.011	0.50	1.00	0.85	\$75	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Refrigerator Level 3 - SCI	14	103	0.011	0.50	1.00	0.85	\$75	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Water Heater - Heat Pump - SCI	10	776	0.154	0.50	1.00	0.85	\$651	\$500	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		Freezer - SCI	11	32	0.004	0.50	1.00	0.85	\$43	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
	Dehumidifier - SCI	12	209	0.044	0.50	1.00	0.85	\$11	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
	Water Cooler - SCI	10	204	0.019	0.50	1.00	0.85	\$49	\$25	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption	
	Monitor - SCI	4	24	0.003	0.51	1.00	0.85	\$2	\$5	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB	
	Computer - SCI	4	119	0.014	0.51	1.00	0.85	\$19	\$5	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB	
	Uninterruptible Power Supply (UPS) - SCI	10	1,020	0.099	0.51	1.00	0.85	\$295	\$102	\$0.00	0.000	0	1 - 5KVA Unit	CMUA TRM	CMUA TRM	
	Imaging - SCI	6	235	0.027	0.51	1.00	0.85	\$11	\$10	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
	Small Network - SCI	5	237	0.027	0.51	1.00	0.85	\$30	\$15	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
	Advanced Pwr Strip - SCI	5	85	0.000	0.51	1.00	0.85	\$34	\$10	\$0.00	0.000	0	1- Advanced Power Strip	PA TRM	Co Assumption	
	Custom - Process Improvement - SCI	15	26,786	2,865	0.80	1.00	0.90	\$8,036	\$2,679	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	Custom - Compressed Air - SCI	13	98,101	11,950	0.80	1.00	0.90	\$29,430	\$9,810	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	Custom - Motors - Three Phase - SCI	15	22,307	2,229	0.80	1.00	0.90	\$13,284	\$2,231	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	Custom - Refrigeration - SCI	15	95,446	6,948	0.80	1.00	0.90	\$57,268	\$9,545	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	Custom - Equipment/Servers - SCI	15	36,067	3,585	0.80	1.00	0.90	\$10,820	\$3,607	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	Custom - HVAC/Chlr/Cntrl's - SCI	15	36,691	5,205	0.80	1.00	0.90	\$22,015	\$3,670	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	Custom - VFDs < 0HP - SCI	15	5,912	0.900	0.80	1.00	0.90	\$1,774	\$600	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	Custom - VFDs > 10 HP - SCI	15	33,250	0.900	0.80	1.00	0.90	\$9,975	\$3,325	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	Custom - Bldg Improvements - SCI	15	49,110	13,052	0.80	1.00	0.90	\$14,733	\$9,822	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	Custom - New Construction - SCI	15	32,010	1,860	0.80	1.00	0.90	\$9,603	\$3,201	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	Custom - Audit & Education - SCI	0	0	0.000	0.80	1.00	0.90	\$0	\$3,000	\$0.00	0.000	0	1 Project	N/A	N/A	
	Building Tune Up - SCI	15	103,423	12,455	0.84	1.00	1.00	\$45,802	\$34,130	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption	
	Virtual/Meter Data Commissioning - SCI	15	32,595	3,721	0.90	1.00	1.00	\$9,778	\$3,259	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption	
	Retrocommissioning - SCI	15	95,446	7,720	0.84	1.00	1.00	\$28,634	\$9,545	\$0.00	0.000	0	1 Project	Actuals	Co Assumption	
	Building Operations Training - SCI	5	54,478	7,300	0.84	1.00	1.00	\$5,000	\$5,450	\$0.00	0.000	0	1 Unit	Co Assumption	Co Assumption	
	Energy Consultation - SCI	0	0	0.000	0.80	1.00	1.00	\$0	\$0	\$0.00	0.000	0	N/A	N/A	N/A	
	Audits - SCI	0	0	0.000	0.80	1.00	1.00	\$0	\$5,000	\$0.00	0.000	0	1 Project	N/A	N/A	
	MF - Tenant - DI - LCI	15	225	0.025	0.90	1.00	0.96	\$200	\$140	\$0.00	0.000	0	1 Tenant Space	Actuals	Actuals	
	MF - Tenant - Prescriptive - LCI	12	79	0.010	0.90	1.00	0.96	\$207	\$50	\$0.00	0.000	0	1 Avg Appliance	PA TRM	PA IC DB	
	MF - Tenant - Custom - LCI	15	275	0.114	0.90	1.00	0.96	\$269	\$125	\$0.00	0.000	0	1.5 Ton Unit	PA TRM	PA IC DB	
	MF - Common - Prescriptive - LCI	14	274	0.010	0.90	1.00	0.96	\$82	\$50	\$0.00	0.000	0	1 Avg Light	PA TRM	PA IC DB	
	MF - Common - Custom - LCI	15	9,822	2,784	0.90	1.00	0.96	\$2,947	\$540	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	MF - Common - DI - LCI	15	5,171	0.595	0.90	1.00	0.96	\$1,477	\$1,034	\$0.00	0.000	0	1 Common Space	Actuals	Actuals	
	Heat Pump - Water & Gas - ES Tier 3 - LCI	15	2,295	0.032	0.51	1.00	0.90	\$9,602	\$575	\$0.00	0.000	0	1.5 ton unit	PA TRM	PA IC DB	
	Air Conditioning - Level 1 >=5.4 < 20 Tn - LCI	15	729	0.422	0.51	1.00	0.90	\$1,014	\$185	\$0.00	0.000	0	1- 11 ton unit	PA TRM	PA IC DB	
	Air Conditioning - Level 1 >=20 Tn - LCI	15	1,886	0.825	0.51	1.00	0.90	\$99	\$475	\$0.00	0.000	0	1- 20 ton unit	PA TRM	PA IC DB	
	Heat Pump - Level 1 <=5.4 Tn - LCI	15	985	0.242	0.51	1.00	0.90	\$1,358	\$250	\$0.00	0.000	0	1 - 5 ton unit	PA TRM	PA IC DB	
Heat Pump - Water & Gas - ES Tier 3 - LCI	15	2,295	0.032	0.51	1.00	0.90	\$9,602	\$575	\$0.00	0.000	0	1.5 ton unit	PA TRM	PA IC DB		
Ductless Mini-Split HP - Level 3 - LCI	15	579	0.067	0.51	1.00	0.90	\$498	\$185	\$0.00	0.000	0	1-1.5 ton unit	PA TRM	PA IC DB		
PTAC - LCI	15	94	0.041	0.51	1.00	0.90	\$363	\$25	\$0.00	0.000	0	1 - 1 ton unit	PA TRM	PA IC DB		
PTHP - LCI	15	180	0.041	0.51	1.00	0.90	\$363	\$50	\$0.00	0.000	0	1 - 1 ton unit	PA TRM	PA IC DB		

Appendix D, Table 2: Measure Assumptions¹

Met-Ed																
Program	Sub-Program	Measure	Measure Life	Verified kWh	Verified kW	NTG	RR kWh	RR kW	Incremental Cost	Modeled Rebate	O&M Benefit (\$/Unit/Yr)	Gas Savings (MMBTU/Yr)	Water Savings (Gal/Yr)	Savings Assumption	Savings Source	Incremental Cost Source
C&I Energy Solutions for Business Program - Large	Prescriptive - LCI	Room Air Conditioner - LCI	9	75	0.107	0.51	1.00	0.90	\$0	\$20	\$0.00	0.000	0	1-1 ton unit	PA TRM	PA IC DB
		Smart Thermostat - Rebate - LCI	8	183	0.000	0.51	1.00	0.90	\$204	\$50	\$0.00	0.000	0	1-5 Ton Unit	MA TRM	MA TRM
		HVAC - Custom - LCI	15	219,995	56,993	0.51	1.00	0.90	\$65,998	\$55,000	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption
		Circulating Pump (Mid Strm) - LCI	15	794	0.000	0.51	1.00	0.90	\$38	\$40	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		HVAC - Maintenance - LCI	10	360	0.106	0.51	1.00	0.90	\$175	\$90	\$0.00	0.000	0	1-5 Ton Unit	PA TRM	Co Assumption
		Furnace Fan (Retrofit or New to ECM) - LCI	15	122	0.036	0.51	1.00	0.90	\$242	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Lighting Controls (Daylight & Occupancy) - LCI	8	427	0.104	0.70	0.98	0.96	\$80	\$35	\$0.00	0.000	0	1 unit controller	PA TRM	PA IC DB
		Linear Fluorescent - LCI	10	119	0.016	0.70	0.98	0.96	\$6	\$10	\$0.00	0.000	0	1-3 lamp fixture	PA TRM	MA TRM
		LED Linear - LCI	15	133	0.018	0.70	0.98	0.96	\$31	\$11	\$0.92	0.000	0	1-4 lamp trougher	PA TRM	PA IC DB
		LED Channel Signage - LCI	15	369	0.026	0.70	0.98	0.96	\$35	\$30	\$0.46	0.000	0	Per LF of Letter	PA TRM	Co Assumption
		Exit Sign - LCI	15	163	0.018	0.70	0.98	0.96	\$18	\$13	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		LED Fixture External - LCI	15	561	0.000	0.70	0.98	0.96	\$203	\$45	\$2.06	0.000	0	1 Unit	PA TRM	PA IC DB
		LED Fixture Internal - LCI	15	133	0.021	0.70	0.98	0.96	\$40	\$11	\$2.61	0.000	0	1 Unit	PA TRM	PA IC DB
		LED Lamp - LCI	14	25	0.004	0.70	0.98	0.96	\$5	\$2	\$0.50	0.000	0	1 Unit	PA TRM	PA IC DB
		Lighting - Other - LCI	15	21,560	4,224	0.70	0.98	0.96	\$6,600	\$1,760	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption
		Street & Area Lighting (Customer Owned) - LCI	12	592	0.000	0.70	0.98	0.96	\$173	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		LED Reach in Refrig / Frizer Light - LCI	8	602	0.090	0.70	0.98	0.96	\$59	\$50	\$1.73	0.000	0	1 Door	PA TRM	PA IC DB
		Lighting - Custom - LCI	15	21,560	4,224	0.70	0.98	0.96	\$6,600	\$1,760	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption
		Network Lighting Control - LCI	8	2	0.000	0.70	0.98	0.96	\$1	\$0	\$0.00	0.000	0	Per sq-ft of building lighting controlled	PA TRM	PA IC DB
		Linear Lamp - MS - LCI	15	26	0.006	0.70	1.00	1.00	\$7	\$7	\$0.46	0.000	0	1-Unit	PA TRM	PA IC DB
		High/Low Bay Lamp - MS - LCI	12	993	0.163	0.70	1.00	1.00	\$162	\$60	\$2.57	0.000	0	1-Unit	PA TRM	PA IC DB
		LED Fixture - MS - LCI	15	88	0.022	0.70	1.00	1.00	\$72	\$2	\$0.92	0.000	0	1-Unit	PA TRM	PA IC DB
		ECM Evap Fan Motor - LCI	15	1,575	0.162	0.51	1.00	0.90	\$227	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Evap Fan Controls - LCI	10	1,278	0.131	0.51	1.00	0.90	\$532	\$100	\$0.00	0.000	0	1 Unit	PA TRM	MA TRM
		Refrigerator - Reach In - LCI	12	453	0.047	0.51	1.00	0.90	\$729	\$65	\$0.00	0.000	0	1-30CF Unit	PA TRM	MA TRM
		Freezer - Reach In - LCI	12	850	0.087	0.51	1.00	0.90	\$977	\$65	\$0.00	0.000	0	1-30CF Unit	PA TRM	PA IC DB
		Refrigerated Case Cover - LCI	5	44	0.000	0.51	1.00	0.90	\$38	\$10	\$0.00	0.000	0	Per LF of Case	PA TRM	PA IC DB
		Anti Sweat Heater Control - LCI	12	706	0.071	0.51	1.00	0.90	\$418	\$30	\$0.00	0.000	0	1-unit	PA TRM	MA TRM
		Strip Curtain - LCI	4	177	0.020	0.51	1.00	0.90	\$10	\$2	\$0.00	0.000	0	Per SF	PA TRM	PA IC DB
		Ice Machine - LCI	8	479	0.061	0.51	1.00	0.90	\$378	\$50	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB
		Beverage Vending Machine - Controls - LCI	5	1,410	0.000	0.51	1.00	0.90	\$180	\$30	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		Beverage Vending Machine - Energy Star - LCI	5	1,410	0.000	0.51	1.00	0.90	\$180	\$50	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		Steam Cooker - LCI	12	14,105	2,628	0.51	1.00	0.90	\$351	\$250	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		Fryer - LCI	12	2,456	0.401	0.51	1.00	0.90	\$1,038	\$200	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB
		Griddle - LCI	12	2,596	0.480	0.51	1.00	0.90	\$950	\$200	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB
		High Food Holding Cabinet - LCI	12	1,730	0.51	0.51	1.00	0.90	\$421	\$250	\$0.00	0.000	0	1-15 Cl. FT. unit	PA TRM	PA IC DB
		Combination Oven - LCI	12	18,134	3,354	0.51	1.00	0.90	\$2,512	\$600	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		Convection Oven - LCI	12	1,937	0.358	0.51	1.00	0.90	\$539	\$400	\$0.00	0.000	0	1-full size unit	PA TRM	PA IC DB
		Dishwasher - LCI	10	3,014	0.372	0.51	1.00	0.90	\$882	\$200	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Induction Warmer/Rethermalizer Well - LCI	15	400	0.041	0.51	1.00	0.90	\$500	\$200	\$0.00	0.000	0	1-Two well unit	Co Assumption	Co Assumption
		Coffee Brewer - LCI	15	1,331	0.137	0.51	1.00	0.90	\$200	\$100	\$0.00	0.000	0	1-large batch Type II Unit	Energy Star	Co Assumption
		Pre-Rinse Sprayer - LCI	8	478	0.074	0.51	1.00	0.90	\$6	\$60	\$0.00	0.000	0	1-unit	PA TRM	Co Assumption
		Refrigerator Recycling - LCI	6	964	0.132	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Freezer Recycling - LCI	5	670	0.092	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Room Air Conditioner Recycling - LCI	4	113	0.213	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Water Cooler Recycling - LCI	5	467	0.147	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
	EV Charging Cord - Level 2 - LCI	10	31	0.003	0.50	1.00	0.85	\$500	\$25	\$0.00	0.000	0	1 Unit	Energy Star	Co Assumption	
	Clothes Washer Level 1&2 - LCI	11	144	0.014	0.50	1.00	0.85	\$187	\$26	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB	
	Clothes Washer Level 3 - LCI	11	155	0.015	0.50	1.00	0.85	\$187	\$50	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB	
	Clothes Dryer - LCI	12	16	0.002	0.50	1.00	0.85	\$358	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
	Refrigerator Level 1&2 - LCI	14	77	0.011	0.50	1.00	0.85	\$75	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
	Refrigerator Level 3 - LCI	14	103	0.014	0.50	1.00	0.85	\$75	\$35	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
	Water Heater - Heat Pump - LCI	10	776	0.154	0.50	1.00	0.85	\$651	\$500	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB	
	Freezer - LCI	11	32	0.004	0.50	1.00	0.85	\$43	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
	Dehumidifier - LCI	12	209	0.044	0.50	1.00	0.85	\$11	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
	Water Cooler - LCI	10	204	0.019	0.50	1.00	0.85	\$49	\$25	\$0.00	0.000	0	1 unit	PA TRM	Co Assumption	
	Monitor - LCI	4	24	0.003	0.51	1.00	0.85	\$2	\$5	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB	
	Computer - LCI	4	119	0.014	0.51	1.00	0.85	\$19	\$5	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB	
	Uninterruptible Power Supply (UPS) - LCI	10	1,020	0.099	0.51	1.00	0.85	\$295	\$102	\$0.00	0.000	0	1 - 5KVA Unit	CMUA TRM	CMUA TRM	
	Imaging - LCI	6	235	0.027	0.51	1.00	0.85	\$11	\$10	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
	Small Network - LCI	5	237	0.027	0.51	1.00	0.85	\$39	\$15	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
	Advanced Pwr Strip - LCI	5	85	0.000	0.51	1.00	0.85	\$34	\$10	\$0.00	0.000	0	1- Advanced Power Strip	PA TRM	Co Assumption	
	Custom - Process Improvement - LCI	15	197,108	22,197	0.80	1.00	0.90	\$59,132	\$19,711	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	Custom - Compressed Air - LCI	15	269,690	32,152	0.80	1.00	0.90	\$80,907	\$26,969	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	Custom - Motors - Three Phase - LCI	15	135,192	16,492	0.80	1.00	0.90	\$81,115	\$13,519	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	Custom - Refrigeration - LCI	15	126,914	7,071	0.80	1.00	0.90	\$76,149	\$12,691	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	Custom - Equipment/Servers - LCI	15	180,335	17,926	0.80	1.00	0.90	\$54,100	\$18,033	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	Custom - HVAC/Chlr/Cntrls - LCI	15	219,995	56,993	0.80	1.00	0.90	\$131,997	\$21,999	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	Custom - VFDs < 10HP - LCI	15	5,912	0.900	0.80	1.00	0.90	\$1,774	\$600	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	Custom - VFDs > 10 HP - LCI	15	33,250	0.900	0.80	1.00	0.90	\$9,975	\$3,325	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	Custom - Bidg Improvements - LCI	15	49,110	13,052	0.80	1.00	0.90	\$14,733	\$9,822	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	Custom - New Construction - LCI	15	56,438	17,848	0.80	1.00	0.90	\$16,931	\$5,644	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	Custom - Audit & Education - LCI	1	0	0.000	0.80	1.00	0.90	\$0	\$10,000	\$0.00	0.000	0	N/A	N/A	N/A	
	Building Tune Up - LCI	5	398,714	85,714	0.84	1.00	1.00	\$176,573	\$123,601	\$0.00	0.000	0	Co Assumption	Co Assumption	Co Assumption	
	Virtual/Meter Data Commissioning - LCI	15	32,595	3,721	0.90	1.00	1.00	\$8,778	\$3,259	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption	
	Retrocommissioning - LCI	15	532,499	131,670	0.84	1.00	1.00	\$159,750	\$53,250	\$0.00	0.000	0	1 Project	Actuals	Co Assumption	
	Building Operations Training - LCI	5	54,478	7,300	0.84	1.00	1.00	\$5,000	\$5,450	\$0.00	0.000	0	1 Unit	Co Assumption	Co Assumption	
	Energy Consultation - LCI	0	0	0.000	0.80	1.00	1.00	\$0	\$0	\$0.00	0.000	0	N/A	N/A	N/A	
	Audits - LCI	1	0	0.000	0.80	1.00	1.00	\$0	\$0	\$0.00	0.000	0	N/A	N/A	N/A	

¹Actuals are adjusted to align with the PA TRM where applicable

Appendix D, Table 3: Avoided Cost Outputs

Met-Ed												
PA ACT 129 Program Year	Year	Met-Ed Zone Summer On-Peak (\$/MWh)	Met-Ed Zone Summer Off-Peak (\$/MWh)	Met-Ed Zone Winter On-Peak (\$/MWh)	Met-Ed Zone Winter Off-Peak (\$/MWh)	Met-Ed Zone Shoulder On-Peak (\$/MWh)	Met-Ed Zone Shoulder Off-Peak (\$/MWh)	Generation Capacity (\$/kW/year)	Transmission Capacity (\$/kW/year)	Distribution Capacity (\$/kW/year)	Avoided Natural Gas Fuel Costs (\$/MMBTU)	
13	2022	\$30.01	\$20.92	\$39.12	\$31.66	\$29.53	\$22.82	\$52.12	\$25.08	\$70.05	\$2.66	Segment 1
14	2023	\$29.81	\$21.34	\$38.90	\$32.30	\$29.36	\$23.27	\$53.16	\$25.58	\$71.45	\$2.60	
15	2024	\$30.41	\$21.77	\$39.68	\$32.94	\$29.95	\$23.74	\$54.23	\$26.09	\$72.88	\$2.65	
16	2025	\$31.01	\$22.20	\$40.47	\$33.60	\$30.55	\$24.21	\$55.31	\$26.62	\$74.34	\$2.72	
17	2026	\$33.27	\$23.48	\$42.91	\$36.09	\$32.56	\$25.41	\$56.42	\$27.15	\$75.82	\$2.91	Segment 2
18	2027	\$35.04	\$24.71	\$46.21	\$37.46	\$34.58	\$26.86	\$57.55	\$27.69	\$77.34	\$3.11	
19	2028	\$36.96	\$26.03	\$49.88	\$40.09	\$36.79	\$28.44	\$58.70	\$28.24	\$78.89	\$3.32	
20	2029	\$38.80	\$27.31	\$52.89	\$42.26	\$38.75	\$29.84	\$59.87	\$28.81	\$80.47	\$3.51	
21	2030	\$39.98	\$28.13	\$55.36	\$44.08	\$40.19	\$30.89	\$61.07	\$29.39	\$82.07	\$3.65	
22	2031	\$41.57	\$29.24	\$58.34	\$46.24	\$41.94	\$32.16	\$62.29	\$29.97	\$83.72	\$3.82	
23	2032	\$43.58	\$30.63	\$62.89	\$49.24	\$44.22	\$33.78	\$63.54	\$30.57	\$85.39	\$4.05	Segment 3
24	2033	\$45.21	\$31.76	\$66.12	\$51.34	\$45.99	\$35.07	\$64.81	\$31.18	\$87.10	\$4.22	
25	2034	\$46.74	\$32.82	\$69.12	\$53.29	\$47.64	\$36.27	\$66.10	\$31.81	\$88.84	\$4.38	
26	2035	\$47.12	\$33.10	\$69.72	\$53.59	\$47.95	\$36.55	\$67.43	\$32.44	\$90.62	\$4.40	
27	2036	\$47.61	\$33.45	\$70.51	\$54.03	\$48.37	\$36.92	\$68.77	\$33.09	\$92.43	\$4.44	
28	2037	\$48.83	\$34.30	\$72.84	\$55.52	\$49.65	\$37.87	\$70.15	\$33.75	\$94.28	\$4.56	
29	2038	\$49.91	\$35.06	\$74.86	\$56.80	\$50.77	\$38.71	\$71.55	\$34.43	\$96.16	\$4.66	
30	2039	\$50.77	\$35.67	\$76.40	\$57.76	\$51.62	\$39.37	\$72.98	\$35.12	\$98.09	\$4.74	
31	2040	\$51.95	\$36.50	\$78.61	\$59.18	\$52.85	\$40.30	\$74.44	\$35.82	\$100.05	\$4.85	
32	2041	\$53.17	\$37.34	\$80.88	\$60.64	\$54.11	\$41.24	\$75.93	\$36.54	\$102.05	\$4.97	

**Appendix A:
CSP Contract(s)**

CSP Contract Summary

Status

Pending approval by PUC Staff

Full company name of contractor and SEP registration Docket Number

ADM Associates, Inc. – Docket A-2010-2175190

Brief description of statement of work

The Evaluation, Measurement, and Verification (EM&V) services being sought are to 1) perform impact and process evaluations, 2) perform verification of data used to generate regulatory reports, 3) support regulatory reporting, including generation and/or verification of tables or other information included in reports, 4) provide consultative and technical support for plan development and/or updates 5) provide evaluation feedback and guidance supporting effective implementation and accurate reporting for Program Managers, including coordinating and communicating results of any impact or other analyses and 6) perform evaluations and provide reports related to the Companies' offering energy efficiency and demand reduction resources in PJM capacity markets. The qualified firm must work with the selected Statewide Evaluator and meet future requirements developed by the Statewide Evaluator and the PUC.

Name of EE&C Plan Program associated with proposed contract and explanation if SOW addresses the Program in its entirety or in part

The proposed contract spans the portfolio of programs included in the Companies' approved Plans.

Estimated total contract cost and statement regarding incentives and rebates, their amount and explanation if total cost includes incentives and rebates

Redacted – Contains pricing information. Included in CSP contract filed with PUC staff.

Estimated targeted energy savings associated with contract

This contract will not produce energy savings, but rather measure and verify the energy savings produced by implementation of the programs in the Plans.

Timeframe and duration of contract from start date to completion

The term of the contract is for the duration of Act 129 Phase IV and is expected to run from contract award until May 31, 2027 to support final evaluation through the end of the Phase, including applicable reports for the final program year (program years are June 1 – May 31).

Statement relating to the number of bids that were received, justification for selection of CSP contractor/subcontractor if based on receipt of less than three bids for any particular program, and identification and explanation for non-selection of low-bid CSP, if applicable.

ADM was the only complete proposal received for providing the requested EM&V services for the duration of PA Act 129 Phase IV. The only other proposal received from the Request for Proposal (RFP), which was issued to all PA certified Conservation Service Providers, was limited to only one of the six EM&V services listed above in the statement of work, specifically the Companies' energy efficiency and

demand reduction resources participation in PJM capacity markets. That other proposal did not address the other five EM&V services identified above. ADM's pricing is competitive in the industry, less than the contracted amount for Phase III and based on time and materials. ADM has done an excellent job performing EM&V services for the FirstEnergy PA EDCs and has billed significantly below the "not to exceed" contract amounts historically. In addition, ADM has established expertise with Company programs, Pennsylvania EM&V procedures, and credibility with the Statewide Independent Evaluator and PUC staff. A new contractor would involve significant start-up costs. For all of these reasons, FirstEnergy requests that the Commission approve the Companies' recommended award of the EM&V contract to ADM.

**Appendix B:
PUC Tables 1-13**

Appendix B, Table 1: Portfolio Summary of Lifetime Costs and Benefits of Energy Efficiency Measures

Penelec				
Portfolio	Total Discounted Lifetime Costs (\$000)	Total Discounted Lifetime Benefits (\$000)	Total Discounted Net Lifetime Benefits (\$000)	Cost-Benefit Ratio (TRC)
Residential (exclusive of Low Income)	\$35,631	\$46,448	\$10,817	1.3
Residential Low Income	\$16,590	\$11,187	-\$5,404	0.7
Commercial/Industrial Small	\$56,448	\$80,234	\$23,786	1.4
Commercial/Industrial Large	\$55,653	\$100,533	\$44,880	1.8
Total	\$164,322	\$238,402	\$74,080	1.5

Appendix B, Table 2: Summary of Portfolio Energy and Demand Savings

Penelec												
MWh Saved for Consumption Reductions (Meter-Level)	PY13		PY14		PY15		PY16		PY17		Total	
	1st-Year MWh	Lifetime MWh	1st-Year MWh	Lifetime MWh	1st-Year MWh	Lifetime MWh	1st-Year MWh	Lifetime MWh	1st-Year MWh	Lifetime MWh	1st-Year MWh	Lifetime MWh
Baseline	14,399,289		14,399,289		14,399,289		14,399,289		14,399,289		14,399,289	
Residential Sector (exclusive of Low Income) – Cumulative Projected Portfolio Savings	20,753	203,629	42,780	410,355	64,676	616,951	86,415	823,390	107,954	1,029,629	107,954	1,029,629
Residential Low Income Sub-Sector – Cumulative Projected Portfolio Savings¹	5,392	55,279	11,044	110,820	16,305	165,968	21,853	221,404	27,019	276,458	27,019	276,458
Commercial/Industrial Small Sector – Cumulative Projected Portfolio Savings	25,156	335,133	55,172	740,975	85,188	1,146,817	115,204	1,552,659	145,220	1,958,501	145,220	1,958,501
Commercial/Industrial Large Sector – Cumulative Net Weather Adjusted Savings	32,592	441,566	66,242	889,403	99,893	1,337,240	133,543	1,785,077	167,194	2,232,914	167,194	2,232,914
EE&C Plan Total – Cumulative Projected Savings	83,893	1,035,608	175,238	2,151,553	266,061	3,266,976	357,015	4,382,530	447,386	5,497,501	447,386	5,497,501
EE&C Plan Total – Percentage of Target to be Met	19%		40%		61%		82%		102%		102%	
Estimated Phase III Carryover Savings												43,242
Total Cumulative Projected Savings Phase IV + Estimated Phase III Carryover Savings	83,893	1,035,608	175,238	2,151,553	266,061	3,266,976	357,015	4,382,530	447,386	5,497,501	490,628	5,497,501
EE&C Plan Total – Percentage of Target to be Met	19%		40%		61%		82%		102%		112%	
Percent Reduction from Baseline	0.6%		1.2%		1.8%		2.5%		3.1%		3.4%	
Commission-Identified Goal											437,676	
Percent Savings due to Portfolio Above or Below Commission-Identified Goal											12%	

¹ Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 3: Summary of Portfolio Energy and Demand Savings

Penelec												
MW Saved for Consumption Reductions (System-Level)	PY13		PY14		PY15		PY16		PY17		Total	
	1st-Year MW	Lifetime MW	1st-Year MW	Lifetime MW	1st-Year MW	Lifetime MW	1st-Year MW	Lifetime MW	1st-Year MW	Lifetime MW	1st-Year MW	Lifetime MW
Baseline	2,395		2,395		2,395		2,395		2,395		2,395	
Residential Sector (exclusive of Low Income) – Cumulative Projected Portfolio Savings	3.8	33.0	7.8	66.9	11.8	100.8	15.8	134.6	19.8	168.4	19.8	168.4
Residential Low Income Sub-Sector – Cumulative Projected Portfolio Savings¹	0.8	7.7	1.6	15.5	2.4	23.2	3.2	30.9	4.0	38.6	4.0	38.6
Commercial/Industrial Small Sector – Cumulative Projected Portfolio Savings	5.2	65.3	10.9	139.5	16.7	213.7	22.5	288.0	28.2	362.2	28.2	362.2
Commercial/Industrial Large Sector – Cumulative Net Weather Adjusted Savings	5.7	75.7	11.6	152.6	17.6	229.5	23.5	306.4	29.5	383.4	29.5	383.4
EE&C Plan Total – Cumulative Projected Savings	15.4	181.8	32.0	374.5	48.5	567.2	65.0	760.0	81.5	952.6	81.5	952.6
EE&C Plan Total – Percentage of Target to be Met	19%		40%		61%		81%		102%		102%	
Percent Reduction from Baseline	0.6%		1.3%		2.0%		2.7%		3.4%		3.4%	
Commission-Identified Goal											80	
Percent Savings due to Portfolio Above or Below Commission-Identified Goal											2%	

¹Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 4: Summary of Portfolio Costs

Penelec

Sector	PY13		PY14		PY15		PY16		PY17	
	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%
Residential Portfolio Annual Budget	\$5,545	25%	\$5,670	24%	\$5,670	24%	\$5,670	24%	\$5,670	24%
Residential Low Income Portfolio Annual Budget	\$3,151	14%	\$3,073	13%	\$3,086	13%	\$3,073	13%	\$3,086	13%
Commercial/Industrial Small Portfolio Annual Budget	\$6,160	28%	\$7,674	33%	\$7,674	33%	\$7,674	33%	\$7,674	33%
Commercial/Industrial Large Portfolio Annual Budget	\$5,280	24%	\$5,309	23%	\$5,309	23%	\$5,309	23%	\$5,309	23%
Common Costs	\$1,883	9%	\$1,482	6%	\$1,464	6%	\$1,461	6%	\$1,458	6%
Total Portfolio Annual Budget	\$22,019	100%	\$23,209	100%	\$23,204	100%	\$23,188	100%	\$23,197	100%

Appendix B, Table 5: Program Summaries

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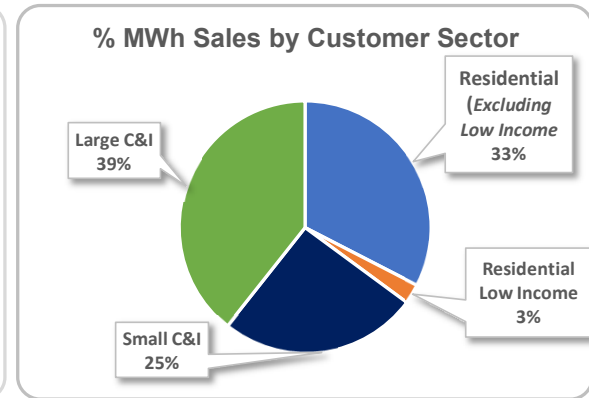
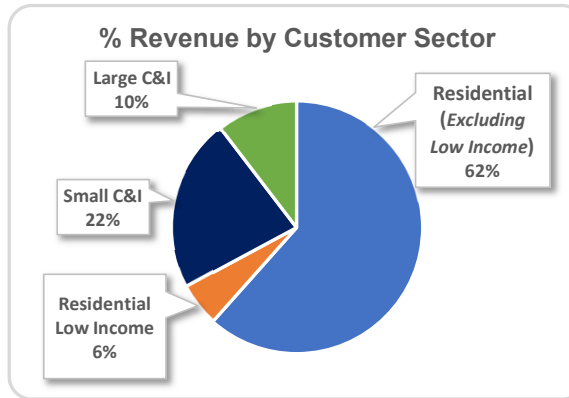
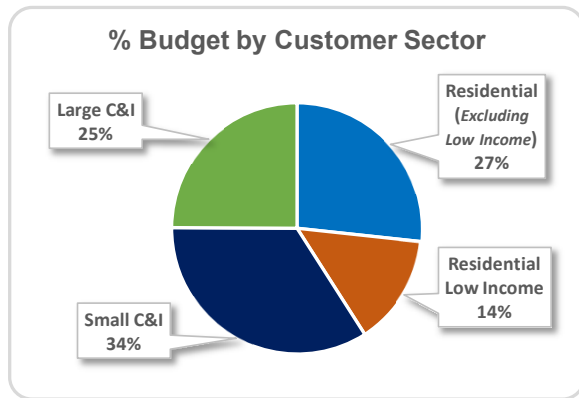
Program Name	Program Market	Program Two-Sentence Summary	Program Years Operated	Lifetime MWh Savings	Lifetime MW Savings	Percentage of Portfolio Resource Savings (MWh% and MW%)		
						MWh%	MW%	
Residential Portfolio Programs <i>(exclusive of Low Income)</i>	Energy Efficient Products Program	Residential	The program provides financial incentives to residential customers and/or retailers, contractors, distributors or manufacturers to promote customers to purchase and install energy efficient products, such as EnergyStar qualified appliances, consumer electronics, and other energy efficient products. The program will also provide financial incentives to turn in and recycle inefficient appliances, and to promote customers to perform HVAC maintenance or to upgrade HVAC equipment to more efficient technology.	5	324,517	75.4	6%	8%
	Energy Efficient Homes Program	Residential	This program promotes energy efficiency of customer homes through various measures that promote customer energy efficiency education, awareness and adoption of energy efficient behaviors and measures, including customized home energy reports, energy efficiency kits, school education, audits, direct install measures, and financial incentives for implementation of qualified energy efficiency measures in the home. The program also includes financial incentives for the construction of energy efficient new homes.	5	705,113	93.0	13%	10%
Totals for Residential Sector					1,029,629	168.4	19%	18%
Residential Low Income Sub-Sector Programs	Low Income Energy Efficiency Program	Residential	This program provides customized energy efficiency education and awareness to promote energy efficient behaviors along with no-cost basic to comprehensive whole house energy efficiency measures, including appliance replacement, to qualified low-income customers. The program also promotes low-income customers to install other energy efficient products, such as EnergyStar qualified appliances, consumer electronics, and other energy efficient products, or to turn in and recycle inefficient appliances, through customer education and outreach, giveaways and enhanced financial incentives.	5	262,138	36.6	5%	4%
	Totals for Low-Income Sector					262,138	36.6	5%
Commercial/Industrial Small Portfolio Programs	C&I Energy Solutions for Business Program - Small	Small C&I ¹	The Energy Solutions for Business Program provides financial incentives to small commercial and industrial customers, including government, institutional and multifamily customers, to purchase and install qualifying energy efficiency equipment, recycle inefficient appliances, upgrade less efficient equipment to more efficient end use technology, retrofit specialized equipment and processes, applications and end uses, complete qualifying high efficiency building shell or system improvements. The Program will also promote behavioral savings, adoption of energy saving technologies and efficient building operations through customer education and outreach, audits with direct install measures, building tune-up, energy management strategies, meter data analysis, or retrocommissioning or building operations training to achieve energy savings.	5	1,972,820	364.2	36%	36%
	Totals for C&I Small Sector					1,972,820	364.2	36%
Commercial/Industrial Large Portfolio Programs	C&I Energy Solutions for Business Program - Large	Large C&I	The Energy Solutions for Business Program provides financial incentives to large commercial and industrial customers, including government, institutional and multifamily customers, to purchase and install qualifying energy efficiency equipment, recycle inefficient appliances, upgrade less efficient equipment to more efficient end use technology, retrofit specialized equipment and processes, applications and end uses, complete qualifying high efficiency building shell or system improvements. The Program will also promote behavioral savings, adoption of energy saving technologies and efficient building operations through customer education and outreach, audits with direct install measures, building tune-up, energy management strategies, meter data analysis, or retrocommissioning or building operations training to achieve energy savings.	5	2,232,914	383.4	41%	40%
	Totals for C&I Large Sector					2,232,914	383.4	41%
Totals for Plan					5,497,501	952.6	100%	100%

¹ Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 6: Budget and Parity Analysis Summary

Penelec				
Customer Sector	Phase IV EE&C Budget (inclusive of allocated common cost)	% of Total EDC EE&C Budget	% of EDC Total Annual Revenue	% of EDC Total MWh Sales
Residential Sector <i>(exclusive of Low Income)</i>	\$30,637	27%	62%	33%
Residential Low Income Sub-Sector	\$16,367	14%	6%	3%
Residential Subtotal	\$47,005	41%	67%	35%
Commercial/Industrial Small Sector ¹	\$39,250	34%	22%	26%
Commercial/Industrial Large Sector	\$28,561	25%	10%	39%
Non-Residential Subtotal	\$67,812	59%	33%	65%
EDC TOTAL	\$114,816	100%	100%	100%

¹ Includes projected participation of Low Income households living in Multifamily housing.



Appendix B, Table 7: Eligible Measures
Penelec

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
Energy Efficient Products Program	Appliance Recycling	Freezer Recycling	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	5	\$75
		Refrigerator Recycling	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	6	\$75
		Room Air Conditioner Recycling	per unit	No	Removal of an existing inefficient room air conditioner from service, prior to its natural end of life (early retirement).	\$0	4	\$50
		Dehumidifier Recycling	per unit	No	Removal of an existing inefficient dehumidifier from service, prior to its natural end of life (early retirement).	\$0	5	\$50
	Appliance Rebate	Clothes Washer - Level 1	per unit	No	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications.	\$187	11	\$50
		Clothes Washer - Level 2	per unit	No	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 2.	\$187	11	\$75
		Clothes Washer - Level 3	per unit	No	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$187	11	\$100
		Refrigerator - Level 1	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications.	\$75	14	\$75
		Refrigerator - Level 2	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 2.	\$75	14	\$100
		Refrigerator - Level 3	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$75	14	\$150
		Freezer	per unit	No	Purchase and installation of a new freezer meeting or exceeding ENERGY STAR specifications.	\$43	11	\$40
		Clothes Dryer	per unit	No	Purchase and installation of a new clothes dryer meeting or exceeding ENERGY STAR specifications with moisture sensor or a heat pump type clothes dryer.	\$358	12	\$75
		Air Purifier / Cleaner	per unit	No	Purchase and installation of a new air purifier/cleaner meeting or exceeding ENERGY STAR specifications.	\$74	9	\$40
		Room Air Conditioner - Level 1	per unit	No	Purchase and installation of a new room air conditioner meeting or exceeding ENERGY STAR specifications and CEE Tier 1.	\$65	9	\$50
		Room Air Conditioner - Level 2	per unit	No	Purchase and installation of a new room air conditioner meeting either ENERGY STAR specifications and CEE Advanced Tier.	\$65	9	\$100
		Dehumidifier	per unit	No	Purchase and installation of a new dehumidifier meeting or exceeding ENERGY STAR specifications.	\$11	12	\$50
		Water Heater	per unit	No	Purchase and installation of a new electric Heat Pump water heater or Solar Water heater meeting or exceeding ENERGY STAR specifications in place of a standard electric water heater.	\$651	10	\$750
		Pool Pump Variable Speed	per unit	No	Purchase and installation of a variable speed swimming pool pump motor to replace a single speed motor.	\$421	10	\$400
		Dishwasher	per unit	No	Purchase and installation of a new dishwasher meeting or exceeding ENERGY STAR specifications.	\$316	10	\$50
		Water Cooler	per unit	No	Purchase and installation of a new water cooler meeting or exceeding ENERGY STAR specifications.	\$49	10	\$25
EV Charging Cord - Level 2 - Res	per unit	No	Purchase and installation of a new EV Charger Cord meeting or exceeding ENERGY STAR specifications.	\$500	10	\$100		
Smart Thermostat - Afnca	per unit	No	New installation or replacement of a manual or conventional programmable thermostat with a ENERGY STAR certified connected thermostat. Existing ducted HVAC system with either an air source heat pump, fossil fuel heating with central AC, or an electric furnace with central AC are eligible. Electric resistance baseboard heating as the primary heating system is not eligible.	\$140	11	\$100		
Residential Occupancy Sensor	per unit	No	Purchase and installation of a wall, fixture, or remote-mounted occupancy sensor for interior or common area applications.	\$26	10	\$25		

Appendix B, Table 7: Eligible Measures

Penelec

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
Energy Efficient Products Program	Appliance Rebate	Ceiling Fan	per unit	No	Purchase and installation of a ceiling fan meeting or exceeding ENERGY STAR specifications with integral LED lamps.	\$15	15	\$35
	Consumer Electronics	Monitor	per unit	No	Purchase and installation of a new monitor meeting or exceeding ENERGY STAR specifications.	\$4	4	\$8
		Computer	per unit	No	Purchase and installation of a new computer meeting or exceeding ENERGY STAR specifications.	\$21	4	\$8
		Imaging	per unit	No	Purchase and installation of a new imaging equipment meeting or exceeding ENERGY STAR specifications.	\$14	6	\$8
		Smart Strip Plug Outlet	per unit	No	Purchase and use of a Current-Sensing Master/Controlled Advanced Power Strip (APS) in place of a standard power strip.	\$41	5	\$25
		TV	per unit	No	Purchase and installation of a new television meeting or exceeding ENERGY STAR specifications or 2020 Most Efficient, as applicable.	\$3	6	\$10
		Sound Bar	per unit	No	Purchase and installation of a new sound bar meeting or exceeding ENERGY STAR specifications.	\$5	7	\$20
		Smart Home	per unit	No	Purchase and installation of connected devices that allows for remote user control.	\$14	15	\$25
	HVAC	Heat Pump - Level 2	per unit	No	Purchase and installation of a single package or ducted split HP system central unit prior to end of life or a new system w/ ENERGY STAR qualifying units w/ SEER ratings > or = 16 or 13 EER or 9 HSPF (CEE Tier 2). Includes variable refrigerant flow (VRF) systems.	\$508	15	\$500
		Heat Pump - Level 3	per unit	No	Purchase and installation of a single package or ducted split HP central unit prior to end of life or a new system w/ ENERGY STAR qualifying units w/ SEER ratings > or = 18 or 13.0 EER or 10 HSPF (CEE Tier 3). Includes variable refrigerant flow (VRF) systems.	\$1,423	15	\$1,000
		Central Air Conditioner - Level 2	per unit	No	Purchase and installation of a single package or ducted split central AC unit prior to end of life or a new system w/ Energy Star qualifying units w/ SEER ratings > or = 16 or 13 EER (CEE Tier 2) Includes variable refrigerant flow (VRF) systems.	\$1,059	15	\$400
		Central Air Conditioner - Level 3	per unit	No	Purchase and installation of a single package or ducted split central AC unit prior to end of life or a new system w/ Energy Star qualifying units w/ SEER ratings > or = 16 or 13 EER (CEE Tier 3) Includes variable refrigerant flow (VRF) systems.	\$1,059	15	\$600
		Ductless Mini-Split Heat Pump - Level 3	per unit	No	Purchase and installation of a new or replacement ductless HP ENERGY STAR qualifying unit w/ SEER >= 20, EER >=12.5 or HSPF >= 10.	\$498	15	\$400
		PTAC - Level 2 - Multi Family	per unit	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$454	15	\$225
		PTHHP - Level 2 - Multi Family	per unit	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$363	15	\$225
		Heat Pump - Water & GeoT - ES Tier 3	per unit	No	Installation of Energy Star qualified Ground Source Heat Pump: The following scenarios are eligible: • Water to Air - Closed Loop: 17.1 EER, 3.6 COP; Open Loop: 21.1 EER, 4.1 COP • Water to Water - Closed Loop: 16.1 EER, 3.1 COP; Open Loop: 20.1 EER, 3.5 COP; Direct: 16 EER, 3.6 COP	\$10,893	15	\$1,500
		Furnace Fan (Retrofit or New to ECM)	per unit	No	Purchase and installation of a high efficiency brushless permanent magnet fan motor (BPM) or electrically commutated motor (ECM) to replace a permanent split capacitor (PSC) motor.	\$242	15	\$150
		Smart Thermostat - HVAC	per unit	No	New installation or replacement of a manual or conventional programmable thermostat with a ENERGY STAR certified connected thermostat. Existing ducted HVAC system with either an air source heat pump, fossil fuel heating with central AC, or an electric furnace with central AC are eligible. Electric resistance baseboard heating as the primary heating system is not eligible.	\$140	11	\$100
		HVAC - Custom	per unit	No	Replacement, retrofit or maintenance of existing HVAC equipment or process changes or enhancements that results in electric energy savings.	\$113	3	\$100
		Circulating Pump	per unit	No	Replacement of existing single speed circulation pump or new circulation pump with variable speed motor and/or controls to automatically change pump speed to produce flow rates that match system heating requirements.	\$38	15	\$30
HE Bathroom Fans		per unit	No	Purchase and installation of a new high efficiency bathroom fan that meets or exceeds ENERGY STAR specifications.	\$44	15	\$20	
HVAC Quality Install	per unit	No	Implementation of proper sizing techniques which requires Manual J calculations, following of ENERGY STAR HVAC Quality Installation procedures, or similar calculations.	\$0	15	\$200		
Ductless Mini-Split A/C	per unit	No	Purchase and installation of a new or replacement ENERGY STAR qualifying unit w/ SEER >= 20, EER >=12.5.	\$498	15	\$400		

Appendix B, Table 7: Eligible Measures

Penelec

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
Energy Efficient Products Program	HVAC	Heat Pump (Air-Wtr) w Domestic Hot Water	per unit	No	Replacement of ducted split central units prior to end of life or a new system w ENERGY STAR qualifying units. Includes variable refrigerant flow (VRF) systems. Heating Coefficient of Performance (COPH) shall be ≥ 1.7 at full load capacity and the following conditions: • Dry bulb air temperature of 5°F • Leaving water temperature of 110°F	\$1,423	15	\$1,000
Energy Efficient Homes Program	Comprehensive Audits	Comprehensive Audit	per Audit w DI & Wgtd Retrofits	No	Provides a Customized Home Energy Report, including diagnostics and testing to any residential customer. Comprehensive measures that are eligible for incentives include, but are not limited to: Windows, Duct Sealing, and Wall & Attic Insulation, etc.	\$968	9	Audit - Up to \$500 for the cost of the audit direct install measures, plus up to \$500 for audit recommended measures and additional incentives
	Multi Family - Res	MF - Tenant - DI - Res	per tenant space	No	Multi-Family Tenant Space Audit w/ direct install measures.	\$200	15	Up to \$250 for the cost of an audit with direct install measures
		MF - Tenant - Prescriptive - Res	per appliance	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$207	13	Same value as incentives offered through the Residential programs.
		MF - Tenant - Custom - Res	per unit	No	Installation of Custom energy efficiency measures including, but not limited to: lighting, HVAC, appliances, etc.	\$269	15	Same value as incentives offered through the Residential programs.
		MF - Common - Prescriptive - Res	per appliance	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$82	14	Same value as incentives offered through the Commercial & Industrial programs.
		MF - Common - Custom - Res	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$2,947	15	Same value as incentives offered through the Commercial & Industrial programs.
		MF - Common - DI - Res	per common space	No	Multi-Family Common Space Audit w/ direct install measures.	\$1,477	15	Up to 80% of the project cost
	School Education	School Education	per wgt'd avg kit	No	Provides energy efficiency education and awareness through students for customers to conserve energy in their homes. In addition to the educational components, this program utilizes low cost direct install items that customers can install by themselves.	\$35	15	NA
	EE Kits	Energy Efficiency Measures	per wgt'd avg kit	No	Energy efficiency kits to encourage customers to adopt energy efficient behaviors to conserve and save energy in their homes.	\$42	12	NA
	Behavioral	On-Line Audit	per household	No	Online Audit process including recommendations and education emphasizing key points, general conservation tips and information on tools and resources supporting implementation of measures and efficiency behaviors that reduces consumption of energy and demand.	\$0	1	NA
		Behavioral 2021	per household	No	Reports containing energy usage comparisons, recommendations and education emphasizing key points, general conservation tips and information on tools and resources supporting implementation of measures and efficiencies behaviors that reduces consumption of energy and demand	\$0	1	NA
		Behavioral 2022	per household	No		\$0	1	NA
		Behavioral 2023	per household	No		\$0	1	NA
		Behavioral 2024	per household	No		\$0	1	NA
		Behavioral 2025	per household	No		\$0	1	NA
	New Homes	NC - Townhouse and duplex units	per unit	No		New Townhouse and duplex units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,185	15
		NC - Two-on-Two condominium units	per unit	No	New Two-on-Two condominium units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,004	15	\$1,000
NC - Single-family detached units		per unit	No	New Single-family detached units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,962	15	\$2,500	
NC - Multi Family Low Rise		per unit	No	New Multi Family Low Rise to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$934	15	\$1,000	
NC - Manufactured Housing		per unit	No	Purchase and installation of a Residential manufactured home compliant to and certified by EPA's ENERGY STAR Manufactured Home [®] program standard.	\$1,228	15	\$2,500	
NC - Multi Family High Rise		per unit	No	New Multi Family High Rise to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$934	15	\$2,500	

Appendix B, Table 7: Eligible Measures
Penelec

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
Low Income Energy Efficiency Program	Weatherization	Weatherization (WARM PLUS)	per household	Yes	WARM Plus - Comprehensive weatherization services provided to customers that qualify at or below 150% of the Federal Poverty Income Guidelines	\$1,369	12	NA
		WARM Extra Measures	per household	Yes	WARM - Extra Measures - additional energy efficiency measures provided in coordination with the Low Income Usage Reduction program—measures above and beyond what that program provides. For customers who qualify at or below 150% of the Federal Poverty Income Guidelines	\$640	12	NA
	LI - Appliances	Freezer Recycling - LI	per unit	Yes	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	5	\$100
		Refrigerator Recycling - LI	per unit	Yes	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	6	\$100
		Room Air Conditioner Recycling - LI	per unit	Yes	Removal of an existing inefficient room air conditioner from service, prior to its natural end of life (early retirement).	\$0	4	\$75
		Dehumidifier Recycling - LI	per unit	Yes	Removal of an existing inefficient dehumidifier from service, prior to its natural end of life (early retirement).	\$0	5	\$75
		Clothes Washer - Level 1	per unit	Yes	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications.	\$187	11	\$125
		Clothes Washer - Level 2	per unit	Yes	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 2.	\$187	11	\$125
		Clothes Washer - Level 3	per unit	Yes	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$187	11	\$125
		Refrigerator - Level 1	per unit	Yes	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications.	\$75	14	\$180
		Refrigerator - Level 2	per unit	Yes	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 2.	\$75	14	\$180
		Refrigerator - Level 3	per unit	Yes	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$75	14	\$180
		Freezer	per unit	Yes	Purchase and installation of a new freezer meeting or exceeding ENERGY STAR specifications.	\$43	11	\$90
		Clothes Dryer	per unit	Yes	Purchase and installation of a new clothes dryer meeting or exceeding ENERGY STAR specifications with moisture sensor or a heat pump type clothes dryer.	\$358	12	\$125
		Air Purifier / Cleaner	per unit	Yes	Purchase and installation of a new air purifier/cleaner meeting or exceeding ENERGY STAR specifications.	\$74	9	\$60
		Room Air Conditioner - Level 1	per unit	Yes	Purchase and installation of a new room air conditioner meeting or exceeding ENERGY STAR specifications and CEE Tier 1.	\$65	9	\$100
		Room Air Conditioner - Level 2	per unit	Yes	Purchase and installation of a new room air conditioner meeting either ENERGY STAR specifications and CEE Advanced Tier.	\$65	9	\$150
		Dehumidifier	per unit	Yes	Purchase and installation of a new dehumidifier meeting or exceeding ENERGY STAR specifications.	\$11	12	\$75
		Water Heater	per unit.	Yes	Purchase and installation of a new electric Heat Pump water heater or Solar Water heater meeting or exceeding ENERGY STAR specifications in place of a standard electric water heater.	\$651	10	\$1,000
		Pool Pump Variable Speed	per unit.	Yes	Purchase and installation of a variable speed swimming pool pump motor to replace a single speed motor.	\$421	10	\$400
Dishwasher	per unit	Yes	Purchase and installation of a new dishwasher meeting or exceeding ENERGY STAR specifications.	\$316	10	\$75		
Water Cooler	per unit.	Yes	Purchase and installation of a new water cooler meeting or exceeding ENERGY STAR specifications.	\$49	10	\$60		
EV Charging Cord - Level 2 - Res	per unit.	Yes	Purchase and installation of a new EV Charger Cord meeting or exceeding ENERGY STAR specifications.	\$500	10	\$400		

Appendix B, Table 7: Eligible Measures
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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}	
Low Income Energy Efficiency Program	LI - Appliances	Smart Thermostat - Aplincs	per unit	Yes	New installation or replacement of a manual or conventional programmable thermostat with a ENERGY STAR certified connected thermostat. Existing ducted HVAC system with either an air source heat pump, fossil fuel heating with central AC, or an electric furnace with central AC are eligible. Electric resistance baseboard heating as the primary heating system is not eligible.	\$140	11	\$125	
	LI - School Education	School Education - LI	per wgt avg kit	Yes	Provides energy efficiency education and awareness through students for customers to conserve energy in their homes. In addition to the educational components, this program utilizes low cost direct install items that customers can install by themselves.	\$49	15	NA	
	LI - EE Kits	Energy Efficiency Measures - LI	per wgt avg kit	Yes	Energy efficiency kits to encourage customers to adopt energy efficient behaviors to conserve and save energy in their homes.	\$52	12	NA	
	LI - Behavioral	On-Line Audit - LI		per household	Yes	Online Audit process including recommendations and education emphasizing key points, general conservation tips and information on tools and resources supporting implementation of measures and efficiency behaviors that reduces consumption of energy and demand. Reports containing energy usage comparisons, recommendations and education emphasizing key points, general conservation tips and information on tools and resources supporting implementation of measures and efficiencies behaviors that reduces consumption of energy and demand	\$0	1	NA
		Behavioral 2021 - LI		per household	Yes		\$0	1	NA
		Behavioral 2022 - LI		per household	Yes		\$0	1	NA
		Behavioral 2023 - LI		per household	Yes		\$0	1	NA
		Behavioral 2024 - LI		per household	Yes		\$0	1	NA
		Behavioral 2025 - LI		per household	Yes		\$0	1	NA
	LI - Multifamily - Res	MF - Tenant - DI - Res - LI		per tenant space	Yes	Multi-Family Tenant Space Audit w/ direct install measures.	\$975	12	Direct install measures provided at no cost to low-income customer
		MF - Tenant - Prescriptive - Res - LI		per appliance	Yes	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$119	14	Prescriptive measures provided at no cost to low-income customer
		MF - Tenant - Custom - Res - LI		per unit	Yes	Installation of Custom energy efficiency measures including, but not limited to: lighting, HVAC, appliances, etc.	\$410	15	Custom measures provided at no cost to low-income customer
		MF - Common - Prescriptive - Res - LI		per avg light	Yes	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$410	14	Up to 100% of the project cost
		MF - Common - Custom - Res - LI		per project	Yes	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$14,733	15	Up to 100% of the project cost
		MF - Common - DI - Res - LI		per common space	Yes	Multi-Family Common Space Audit w/ direct install measures.	\$56,245	12	Up to 100% of the project cost
	LI - New Homes	NC - Townhouse and duplex units - LI		per unit	Yes	New Townhouse and duplex units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,185	15	\$1,500
		NC - Two-on-Two condominium units - LI		per unit	Yes	New Two-on-Two condominium units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,004	15	\$1,000
		NC - Single-family detached units - LI		per unit	Yes	New Single-family detached units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,962	15	\$2,500
		NC - Multi Family Low Rise - LI		per unit	Yes	New Multi Family Low Rise to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$934	15	\$1,000
		NC - Manufactured Housing - LI		per unit	Yes	Purchase and installation of a Residential manufactured home compliant to and certified by EPA's ENERGY STAR Manufactured Home' program standard.	\$1,228	15	\$2,500
		NC - Multi Family High Rise - LI		per unit	Yes	New Multi Family High Rise to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$934	15	\$2,500

Appendix B, Table 7: Eligible Measures
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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Small	Multi Family - SCI	MF - Tenant - DI - SCI - LI	per tenant space	No	Multi-Family Tenant Space Audit w/ direct install measures.	\$975	12	Direct install measures provided at no cost to low-income customer
		MF - Tenant - Prescriptive - SCI - LI	per Avg Appliance	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$119	14	Prescriptive measures provided at no cost to low-income customer
		MF - Tenant - Custom - SCI - LI	per unit	No	Installation of Custom energy efficiency measures including, but not limited to: lighting, HVAC, appliances, etc.	\$269	15	Custom measures provided at no cost to low-income customer
		MF - Common - Prescriptive - SCI - LI	per avg light	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$82	14	Up to 100% of the project cost
		MF - Common - Custom - SCI - LI	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$14,733	15	Up to 100% of the project cost
		MF - Common - DI - SCI - LI	per common space	No	Multi-Family Common Space Audit w/ direct install measures.	\$56,245	12	Up to 100% of the project cost
		MF - Tenant - DI - SCI	per tenant space	No	Multi-Family Tenant Space Audit w/ direct install measures.	\$200	15	Up to \$250 for the cost of an audit with direct install measures
		MF - Tenant - Prescriptive - SCI	per Avg Appliance	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$207	13	Same value as incentives offered through the Residential programs.
		MF - Tenant - Custom - SCI	per unit	No	Installation of Custom energy efficiency measures including, but not limited to: lighting, HVAC, appliances, etc.	\$269	15	Same value as incentives offered through the Residential programs.
		MF - Common - Prescriptive - SCI	per avg light	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$82	14	Same value as incentives offered through the Commercial & Industrial programs.
		MF - Common - Custom - SCI	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$2,947	15	Same value as incentives offered through the Commercial & Industrial programs.
		MF - Common - DI - SCI	per common space	No	Multi-Family Common Space Audit w/ direct install measures.	\$1,477	15	Up to 80% of the project cost
	Prescriptive - SCI	Air Conditioning - Level 1 <=5.4 Tn - SCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) SEER >= 16 and EER>=13. Includes Variable Refrigerant Flow (VRF) systems	\$1,358	15	\$200
		Air Conditioning - Level 1 >5.4 < 20 Tn - SCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) exceeding applicable standard by 5%. Includes Variable Refrigerant Flow (VRF) systems.	\$1,014	15	\$150
		Air Conditioning - Level 1 >=20 Tn - SCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) exceeding applicable standard by 5%. Includes Variable Refrigerant Flow (VRF) systems.	\$99	15	\$120
		Heat Pump - Level 1 <=5.4 Tn - SCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System HP, HSPF >= 9 (split), HSPF>=8.2 (single package).	\$1,358	15	\$200
		Heat Pump - Water & GeoT - ES Tier 3 - SCI	per ton	No	Purchase and installation of a new or replacement groundwater source, water source or ground source heat pump system that meets or exceeds the energy efficiency requirements of applicable standard 5%. The following retrofit scenarios are considered: • Ground source heat pumps for existing or new non-residential HVAC applications • Groundwater source heat pumps for existing or new non-residential HVAC applications • Water source heat pumps for existing or new non-residential HVAC applications	\$8,802	15	\$300
		Ductless Mini-Split HP - Level 3 - SCI	per ton	No	Purchase and installation of a new ENERGY STAR Ductless Mini Split HP less than 5.4 tons, SEER >=20, EER >=12.5 EER , and HSPF>=10	\$514	15	\$300
		PTAC - SCI	per ton	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$363	15	\$150
		PTHP - SCI	per ton	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$363	15	\$150
Room Air Conditioner- SCI		per ton	No	Purchase and installation of new unit meeting or exceeding the ENERGY STAR standard.	\$0	9	\$150	
Smart Thermostat -Rebate - SCI		per unit	No	Purchase and installation of a smart thermostat that meets ENERGY STAR certification.	\$204	8	\$150	
HVAC - Custom - SCI	per project	No	Purchase and installation of new high-efficiency HVAC equipment in place of standard efficiency equipment. Also includes the purchase and installation of HVAC controls/controllers that optimizes ventilation and economization control schemes of a building's HVAC system based on occupancy or sensor level inputs.	\$11,007	15	\$0.20 per kWh and/or \$550 per kW saved		

Appendix B, Table 7: Eligible Measures

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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Circulating Pump (Mid Stm) - SCI	per unit	No	Purchase and installation of a new ECM or BPM circulator pump, r/p single speed motor for space heating in a commercial application.	\$38	15	\$150
		HVAC - Maintenance - SCI	per unit	No	Maintenance services applicable to C&I customers for documented tune-ups of packaged and split systems up to 20 Tons.	\$175	10	\$250
		Furnace Fan (Retrofit or New to ECM) - SCI	per unit	No	Purchase and installation of a high efficiency brushless permanent magnet fan motor (BPM or ECM) to replace a permanent split capacitor (PSC) motor.	\$242	15	\$150
		Lighting Control (Daylight & Occupancy) - SCI	per sensor	No	Purchase and installation of non-networked lighting controls including, but not limited to: daylight On/Off, dimming, occupancy sensors (wall plate, remote & fixture mounted), time clocks and switching controls.	\$80	8	\$50
		Linear Fluorescent - SCI	per fixture	No	Purchase and installation of high performance T8 lamps replacing existing T8 lamps, or higher efficiency than existing or designed.	\$6	10	\$0.20 per kWh and/or \$550 per kW saved
		LED Linear - SCI	per fixture	No	Purchase and installation of linear LED lighting equipment to a higher efficiency than existing or designed. Must meet ENERGY STAR or DLC, as applicable.	\$31	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Channel Signage - SCI	per lin ft	No	Replacement, retrofit or new installation of channel letter signs w/ LED technology. Must meet ENERGY STAR or DLC, as applicable.	\$35	15	\$3
		Exit Sign - SCI	per unit	No	Purchase and installation of LED exit signs to replace incandescent or fluorescent exit signs.	\$18	15	\$23
		LED Fixture External - SCI	per fixture	No	Replacement or new installation of a lighting fixture wired for exclusive use with LED lamps installed in an exterior setting. Must meet ENERGY STAR or DLC, as applicable.	\$203	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Fixture Internal - SCI	per fixture	No	Replacement or new installation of a lighting fixture wired for exclusive use with LED lamps installed in an interior setting. Must meet ENERGY STAR or DLC, as applicable.	\$40	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Lamp - SCI	per unit	No	Purchase and installation of an ENERGY STAR LED lamps, including A-Line and specialty lamps.	\$5	14	\$20
		Lighting - Other - SCI	per project	No	Replacement or new installation of lighting to a higher efficiency than existing or designed lighting equipment. Must meet ENERGY STAR or DLC, as applicable.	\$6,600	15	\$0.20 per kWh and/or \$550 per kW saved
		Street & Area Lighting (Customer Owned) - SCI	per fixture	No	Purchase and installation of new lighting equipment for Street and Area lighting applications to a greater efficiency than existing or designed	\$173	12	\$220
		LED Reach in Refrig / Frizer Light - SCI	per door	No	Purchase and installation of LED luminaires in vertical and horizontal refrigerated display cases replacing linear fluorescent lamp technology. Must meet ENERGY STAR or DLC, as applicable.	\$59	8	\$75
		Lighting - Custom - SCI	per project	No	Replacement or new installation of lighting to a higher efficiency than existing or designed lighting equipment. Specialty lighting applications may be eligible, but will require approval by the Company.	\$6,600	15	\$0.20 per kWh and/or \$550 per kW saved
		Network Lighting Control - SCI	per sq ft of Lighting Controlled	No	Purchase and installation of a networked lighting control system by applying, but not limited to: occupancy sensors, photo sensors, and dimming controls where the system must dim or turn off individual fixtures based on local occupancy and/or light levels. The control system must include luminaire-level lighting control (LLLC) that can switch lights on and off based on occupancy and is capable of full-range dimming based on local light levels.	\$1	8	\$0.60 Per Watt Controlled
		Linear Lamp - MS - SCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$7	15	\$0.20 per kWh and/or \$550 per kW saved
		High/Low Bay Lamp - MS - SCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$162	12	\$0.20 per kWh and/or \$550 per kW saved
		LED Fixture - MS - SCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$72	15	\$0.20 per kWh and/or \$550 per kW saved
		ECM Evap Fan Motor - SCI	per unit	No	Purchase and installation of a ECM motor to replace a permanent split capacitor or shaded pole motor in a commercial refrigeration unit.	\$227	15	\$75
		Evap Fan Controls - SCI	per unit	No	Purchase and installation of ON/OFF controls or multispeed controls for an uncontrolled ECM or permanent split capacitor or shaded pole motor in a commercial refrigeration unit.	\$532	10	\$200
Refrigerator - Reach In - SCI	per unit	No	Purchase and installation of a new high efficiency packaged commercial refrigerator meeting ENERGY STAR.	\$729	12	\$200		
Freezer - Reach In - SCI	per unit	No	Purchase and installation of a new high efficiency packaged commercial freezer meeting ENERGY STAR.	\$977	12	\$200		

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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Refrigerated Case Cover - SCI	per lin ft	No	Purchase and installation of night covers on existing open type refrigerated display cases.	\$38	5	\$22
		Anti Sweat Heater Controls - SCI	per door	No	Purchase and installation of anti-sweat door heaters on glass refrigerator or freezer doors with either ON/OFF controls or micropulse controls.	\$418	12	\$60
		Strip Curtain - SCI	per sq ft	No	Purchase and installation of strip curtains applied to walk in cooler or freezer doors; curtains must be at least 0.06" thick. Low temp strip curtains must be used on low temp applications.	\$10	4	\$3
		Ice Machine - SCI	per unit	No	Purchase and installation of new ENERGY STAR qualified ice machine.	\$378	8	\$590 0-500 lbs \$980 501-1000 lbs \$1100 over 1000 lbs
		Beverage Vending Machine - Controls - SCI	per unit	No	Retrofit controls for a non ENERGY STAR rated vending machine.	\$180	5	\$125
		Beverage Vending Machine - Energy Star - SCI	per unit	No	The purchase and installation of an ENERGY STAR certified beverage vending machine.	\$180	5	\$150
		Steam Cooker - SCI	per unit	No	Purchase and installation of new a ENERGY STAR steam cooker.	\$351	12	\$300 - 3 pan \$400 - 4 pan \$500 - 5 pan \$600 - 6 pan
		Fryer - SCI	per unit	No	Purchase and installation of new a ENERGY STAR fryer.	\$1,038	12	\$500
		Griddle - SCI	per unit	No	Purchase and installation of new a ENERGY STAR griddle.	\$950	12	\$500
		Hot Food Holding Cabinet - SCI	per unit	No	Purchase and installation of new hot food holding cabinet meeting or exceeding ENERGY STAR standards.	\$421	12	\$500 - full size \$375 - 3/4 size \$225 - 1/2 size
		Combination Oven - SCI	per unit	No	Purchase and installation of new Combination Oven meeting or exceeding ENERGY STAR standards.	\$2,512	12	\$1,500
		Convection Oven - SCI	per unit	No	Purchase and installation of new Convection Oven meeting or exceeding ENERGY STAR standards.	\$539	12	\$500
		Dishwasher - SCI	per unit	No	Purchase and installation of ENERGY STAR qualified stationary or conveyor type commercial dishwasher.	\$882	10	\$500
		Induction Warmer/Rethermalizer Well - SCI	per unit	No	Purchase and installation of a energy efficient Rethermalizer & Food Warmers.	\$500	15	\$200
		Coffee Brewer - SCI	per unit	No	Purchase and installation of a new ENERGY STAR Type II small, medium, or large coffee brewer.	\$200	15	\$100
		Pre-Rinse Sprayer - SCI	per unit	No	Purchase and installation of a new sprayer replacing an existing unit that use 1.6 GPM or less, on/off squeeze lever, and cleanliness of performance of at least 26 seconds. Electric water heating only.	\$6	8	\$55
		Agricultural Process Lighting	per unit	No	Purchase and installation of new or replacement of lighting equipment to a higher efficiency than existing or designed for agriculture grow processes.	\$950	15	\$0.20 per kWh and/or \$550 per kW saved
		Auto Milker Takeoff	per unit	No	Purchase and installation of a new automatic milker takeoffs to replace pre-existing manual takeoffs on dairy milking vacuum pump systems.	\$200	10	\$975
		Dairy Scroll Compressor	per unit	No	Purchase and installation of a new or replacement of existing reciprocating compressor with a scroll compressor.	\$1,000	15	\$650
		HE Ventilation Fans	per unit	No	Purchase and installation of a new or replacement of standard efficiency ventilation fans with high efficiency ventilation fans.	\$250	15	\$640
Heat Reclaimer	per unit	No	Purchase and installation of a new heat reclaim units on dairy parlor milk refrigeration systems.	\$4,300	15	\$975		
High Volume Low Speed Fan	per ft of fan blade	No	Purchase and installation of new or replacement of conventional circulating fans with High Volume Low Speed (HVLS) fans. HVLS fans are a minimum of 16 feet long in diameter and move more cubic feet of air per watt than conventional circulating fans.	\$816	15	\$25		
Livestock Waterer	per unit	No	Purchase and installation of an energy efficient livestock waterer that is thermostatically controlled and has a minimum of two inches of factory-installed insulation.	\$510	10	\$350		

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C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Dairy Vac Pump VSD Control	per unit	No	Purchase and installation of VFD and controls on dairy vacuum pumps, or the purchase of dairy vacuum pumps with variable speed capability. Pre-existing pumps with VSD's are not eligible for this measure.	\$3,400	15	\$1,500
		Low Pressure Irrigation	per unit	No	Purchase and installation of a low pressure irrigation system.	\$2,095	5	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Agricultural	per unit	No	Replacement or retrofit of existing farm type equipment or process changes or enhancements that results in electric energy savings, including construction of new facilities.	\$2,953	15	\$0.20 per kWh and/or \$550 per kW saved
		Dairy Refrigeration Tune-Up	per unit	No	Tune up of refrigeration systems for agriculture applications.	\$194	1	\$200
		Engine Block Heater Timer	per unit	No	Purchase and installation of a new engine block heater timer.	\$25	15	\$25
		Street Lighting (Tariff / Utility Owned(EMU))	per fixture	No	Replacement or new installation of Street and Area lighting equipment to a greater efficiency than existing or designed	\$173	12	\$220
		Street Lighting (Tariff / Customer Owned(MU))	per fixture	No	Replacement or new installation of Street and Area lighting equipment to a greater efficiency than existing or designed	\$173	12	\$220
	Prescriptive Other - SCI	Refrigerator Recycling - SCI	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	6	\$75
		Freezer Recycling - SCI	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	5	\$75
		Room Air Conditioner Recycling - SCI	per unit	No	Removal of an existing inefficient room air conditioner from service, prior to its natural end of life (early retirement).	\$0	4	\$50
		Dehumidifiers Recycling - SCI	per unit	No	Removal of an existing inefficient dehumidifier from service, prior to its natural end of life (early retirement).	\$0	5	\$50
		EV Charging Cord - Level 2 - SCI	per unit	No	Purchase and installation of an ENERGY STAR rated EV Charger Cord.	\$500	10	\$100
		Clothes Washer Level 1&2 - SCI	per unit	No	Purchase and installation of a clothes washer meeting or exceeding ENERGY STAR, CEE Tier 1, or CEE Tier 2 specifications, as applicable.	\$187	11	\$75
		Clothes Washer Level 3 - SCI	per unit	No	Purchase and installation of a clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$187	11	\$100
		Clothes Dryer - SCI	per unit	No	Purchase and installation of a clothes dryer meeting or exceeding ENERGY STAR specifications with moisture sensor. Heat pump type clothes dryers are eligible.	\$358	12	\$75
		Refrigerator Level 1& 2 - SCI	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR, CEE Tier 1 or CEE TIER 2 specifications, as applicable.	\$75	14	\$100
		Refrigerator Level 3 - SCI	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$75	14	\$150
		Water Heater - Heat Pump - SCI	per unit	No	Purchase and installation of new or replacement of inefficient electric water heater with a heat pump water heater with uniform energy factors meeting or exceeding the ENERGY STAR specifications. Solar water heating is also eligible.	\$651	10	\$750
		Freezer - SCI	per unit	No	Purchase and installation of a freezer meeting or exceeding ENERGY STAR specifications.	\$43	11	\$40
		Dehumidifier - SCI	per unit	No	Purchase and installation of a new dehumidifier meeting or exceeding ENERGY STAR specifications.	\$11	12	\$25
		Water Cooler - SCI	per unit	No	Purchase and installation of a new water cooler meeting or exceeding ENERGY STAR specifications.	\$49	10	\$25
		Monitor - SCI	per unit	No	Purchase and installation of a new monitor meeting or exceeding ENERGY STAR specifications.	\$2	4	\$8
		Computer - SCI	per unit	No	Purchase and installation of a new computer meeting or exceeding ENERGY STAR specifications.	\$19	4	\$8

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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Small	Prescriptive Other - SCI	Uninterruptible Power Supply (UPS) - SCI	per kW rating of UPS	No	Purchase and installation of new UPS (less than 12 kW) that exceeds the minimum average efficiency standard as determined by Table 1 of the Energy Star UPS standard. Table 2 of the standard shall be used in calculating the loading of the UPS.	\$295	10	\$220
		Imaging - SCI	per unit	No	Purchase and installation of a new imaging equipment meeting or exceeding ENERGY STAR specifications.	\$11	6	\$8
		Small Network - SCI	per PC controlled	No	Purchase and installation of network level software that controls desktop computers and monitors power settings with the network. Software must be capable of measuring and managing power consumption of each desktop computer and monitor. Laptops are eligible but savings assume workstation includes desktop monitor, laptop computer with laptop screen in use.	\$30	5	\$15
		Advanced Pwr Strip - SCI	per unit	No	Purchase and installation of a new Tier 1 or Tier 2 Advance Power Strip (APS)	\$34	5	\$25
	Custom - SCI	Custom - Process Improvement - SCI	per project	No	Replacement or retrofit of existing equipment or process changes or enhancements that result in the more efficient use of electrical energy.	\$8,036	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Compressed Air - SCI	per project	No	Purchase and installation of new or replacement or retrofit of existing air compressor systems, including but not limited to: new compressors, air dryers, or increased storage capacity. Other efficiency measures such as: leak repair, controls, high efficiency nozzles, piping enhancements, and no loss drains are also eligible.	\$29,430	13	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Motors - Three Phase - SCI	per hp	No	Purchase and installation of a new premium efficiency motor as a direct replacement or for new construction applications	\$13,384	15	\$50
		Custom - Refrigeration - SCI	per project	No	Purchase and installation of a new or retrofit of refrigeration measures on small commercial walk-in refrigeration and coolers, including, but not limited to: high efficiency fan motors, evaporator fan controllers, floating head pressure controls, evaporator coil defrost controls and variable speed compressor motors.	\$57,268	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Equipment/Servers - SCI	per project	No	Purchase and installation new or retrofit of data center measures (servers, UPS, HVAC, etc.) and the optimization of those systems to decrease energy usage.	\$10,820	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - HVAC/Chlr/Cntrls - SCI	per project	No	Purchase and installation of HVAC controls/controllers that optimizes ventilation and economization control schemes of a building's HVAC system based on occupancy or sensor level inputs.	\$22,015	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - VFDs < 10HP - SCI	per hp	No	Purchase and installation of a new VFD for an existing motor (less than or equal to 10 hp) driving fans, pumps and other suitable applications. VFD retrofits are not eligible.	\$1,774	15	\$150
		Custom - VFDs > 10 HP - SCI	per hp	No	Purchase and installation of a new VFD for an existing motor (greater than 10 hp) driving fans, pumps and other suitable applications. VFD retrofits are not eligible.	\$9,975	15	\$100
		Custom - Bldg Improvements - SCI	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to: wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$14,733	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - New Construction - SCI	per project	No	Implementation of design principles to reduce building electric consumption using current ASHRAE 90.1 or IECC baselines, as applicable.	\$9,603	15	\$0.20 per kWh and/or \$550 per kW saved
	Custom - Audit & Education - SCI	per Audit	No	Comprehensive Energy Audit for commercial/industrial facilities or manufacturing processes recommending installation of efficient equipment, building shell/envelop improvements, manufacturing process changes, building operating changes, or other energy efficiency improvements. Audit must meet minimum audit requirements for buildings or for process equipment.	\$0	0	\$0.20 per kWh and/or \$550 per kW saved towards cost of audit	
	Energy Management - SCI	Building Tune Up - SCI	per project	No	Portfolio of measures and services that focus on the adjustment, maintenance and improvement of building systems to achieve maximum operating efficiency, including the installation of energy efficiency measures.	\$45,802	15	Up to 80% of the project cost
		Virtual/Meter Data Commissioning - SCI	per project	No	Assessment of energy usage using meter data and analytics, engineering and building modeling to determine energy saving strategies for the upgrade and/or replacement of building systems including, but not limited to: lighting, HVAC, refrigeration, compressed air and other operational energy savings. Additionally, the measure will utilize pre and post enrollment meter usage data to further evaluate building energy savings.	\$9,778	15	\$0.20 per kWh and/or \$550 per kW saved
		Retrocommissioning - SCI	per project	No	Adjusting electrical, electro-mechanical, mechanical and control system set points to improve system performance to existing building conditions and use, including the installation of energy savings measures and implementation of energy savings strategies identified through facility audit or building operations training.	\$28,634	15	\$0.20 per kWh and/or \$550 per kW saved
		Building Operations Training - SCI	per unit	No	Obtain Building Operations Certification (BOC) by attending a certified training program or other training programs as related to the efficient design, operations and maintenance of buildings.	\$5,000	5	Up to 70% of the cost to attend qualified BOC training course and NTE \$1000 per person.
		Energy Consultation - SCI	N/A	No	N/A	\$0	0	NA
Audits - SCI		per Audit	No	Comprehensive Energy Audit for commercial/industrial facilities or manufacturing processes recommending installation of efficient equipment, building shell/envelop improvements, manufacturing process changes, building operating changes, or other energy efficiency improvements. Audit must meet minimum audit requirements for buildings or for process equipment.	\$0	0	\$0.20 per kWh and/or \$550 per kW saved towards cost of audit	
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	MF - Tenant - DI - LCI	per tenant space	No	Multi-Family Tenant Space Audit w/ direct install measures.	\$200	15	Up to \$250 for the cost of an audit with direct install measures.
		MF - Tenant - Prescriptive - LCI	per Avg Appliance	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$207	12	Same value as incentives offered through the Residential programs.

Appendix B, Table 7: Eligible Measures

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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	MF - Tenant - Custom - LCI	per unit	No	Installation of Custom energy efficiency measures including, but not limited to: lighting, HVAC, appliances, etc.	\$269	15	Same value as incentives offered through the Residential programs.
		MF - Common - Prescriptive - LCI	per avg light	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$82	14	Same value as incentives offered through the Commercial & Industrial programs.
		MF - Common - Custom - LCI	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$2,947	15	Same value as incentives offered through the Commercial & Industrial programs.
		MF - Common - DI - LCI	per common space	No	Multi-Family Common Space Audit w/ direct install measures.	\$1,477	15	Up to 80% of the project cost
	Prescriptive - LCI	Air Conditioning - Level 1 <=5.4 Tn - LCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) SEER >= 16 and EER>=13. Includes Variable Refrigerant Flow (VRF) systems.	\$1,358	15	\$200
		Air Conditioning - Level 1 >5.4 < 20 Tn - LCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) exceeding applicable standard by 5%. Includes Variable Refrigerant Flow (VRF) systems.	\$1,014	15	\$150
		Air Conditioning - Level 1 >=20 Tn - LCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) exceeding applicable standard by 5%. Includes Variable Refrigerant Flow (VRF) systems.	\$99	15	\$120
		Heat Pump - Level 1 <=5.4 Tn - LCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System HP, HSPF >= 9 (split), HSPF>=8.2 (single package).	\$1,358	15	\$200
		Heat Pump - Water & GeoT - ES Tier 3 - LCI	per ton	No	Purchase and installation of a new or replacement groundwater source, water source or ground source heat pump system that meets or exceeds the energy efficiency requirements of the applicable standard by 5%. The following retrofit scenarios are considered: • Ground source heat pumps for existing or new non-residential HVAC applications • Groundwater source heat pumps for existing or new non-residential HVAC applications • Water source heat pumps for existing or new non-residential HVAC applications	\$8,802	15	\$300
		Ductless Mini-Split HP - Level 3 - LCI	per ton	No	Purchase and installation of a new ENERGY STAR Ductless Mini Split HP less than 5.4 tons, SEER >=20, EER >=12.5 EER, and HSPF>=10	\$498	15	\$300
		PTAC - LCI	per ton	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$363	15	\$150
		PTHP - LCI	per ton	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$363	15	\$150
		Room Air Conditioner- LCI	per ton	No	Purchase and installation of new unit meeting or exceeding the ENERGY STAR standard.	\$0	9	\$150
		Smart Thermostat -Rebate - LCI	per unit	No	Purchase and installation of a new smart thermostat that meets ENERGY STAR certification.	\$204	8	\$150
		HVAC - Custom - LCI	per project	No	Purchase and installation of new high-efficiency HVAC equipment in place of standard efficiency equipment. Also includes the purchase and installation of HVAC controls/controllers that optimizes ventilation and economization control schemes of a building's HVAC system based on occupancy or sensor level inputs.	\$65,998	15	\$0.20 per kWh and/or \$550 per kW saved
		Circulating Pump (Mid Strm) - LCI	per unit	No	Purchase and installation of a new ECM or BPM circulator pump, rip single speed motor for space heating in a commercial application.	\$38	15	\$150
		HVAC - Maintenance - LCI	per unit	No	Maintenance services applicable to C&I customers for documented tune-ups of packaged and split systems up to 20 Tons.	\$175	10	\$250
		Furnace Fan (Retrofit or New to ECM) - LCI	per unit	No	Purchase and installation of a high efficiency brushless permanent magnet fan motor (BPM or ECM) to replace a permanent split capacitor (PSC) motor.	\$242	15	\$150
		Lighting Controls (Daylight & Occupancy) - LCI	per sensor	No	Purchase and installation of non-networked lighting controls including, but not limited to: daylight On/Off, dimming, occupancy sensors (wall plate, remote & fixture mounted), time clocks and switching controls.	\$80	8	\$50
		Linear Fluorescent - LCI	per fixture	No	Purchase and installation of high performance T8 lamps replacing existing T8 lamps, or higher efficiency than existing or designed.	\$6	10	\$0.20 per kWh and/or \$550 per kW saved
		LED Linear - LCI	per fixture	No	Purchase and installation of linear LED lighting equipment to a higher efficiency than existing or designed. Must meet ENERGY STAR or DLC, as applicable.	\$31	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Channel Signage - LCI	per lin ft	No	Replacement, retrofit or new installation of channel letter signs w/ LED technology. Must meet ENERGY STAR or DLC, as applicable.	\$35	15	\$3
Exit Sign - LCI	per sign	No	Replacement or new installation of a lighting fixture wired for exclusive use with LED lamps installed in an exterior setting. Must meet ENERGY STAR or DLC, as applicable.	\$18	15	\$23		

Appendix B, Table 7: Eligible Measures
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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Large	Prescriptive - LCI	LED Fixture External - LCI	per fixture	No	Replacement or new installation of a lighting fixture wired for exclusive use with LED lamps installed in an exterior setting. Must meet ENERGY STAR or DLC, as applicable.	\$203	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Fixture Internal - LCI	per fixture	No	Replacement or new installation of a lighting fixture wired for exclusive use with LED lamps installed in an interior setting. Must meet ENERGY STAR or DLC, as applicable.	\$40	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Lamp - LCI	per unit	No	Purchase and installation of an ENERGY STAR LED lamps, including A-Line and specialty lamps.	\$5	14	\$20
		Lighting - Other - LCI	per project	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$6,600	15	\$0.20 per kWh and/or \$550 per kW saved
		Street & Area Lighting (Customer Owned) - LCI	per fixture	No	Purchase and installation of new lighting equipment for Street and Area lighting applications to a greater efficiency than existing or designed	\$173	12	\$220
		LED Reach in Refrig / Frizer Light - LCI	per door	No	Purchase and installation of LED luminaires in vertical and horizontal refrigerated display cases replacing linear fluorescent lamp technology. Must meet ENERGY STAR or DLC, as applicable.	\$59	8	\$75
		Lighting - Custom - LCI	per project	No	Replacement or new installation of lighting to a higher efficiency than existing or designed lighting equipment. Specialty lighting applications may be eligible, but will require approval by the Company.	\$6,600	15	\$0.20 per kWh and/or \$550 per kW saved
		Network Lighting Control - LCI	per sq ft of Lighting Controlled	No	Purchase and installation of a networked lighting control system by applying, but not limited to: occupancy sensors, photo sensors, and dimming controls where the system must dim or turn off individual fixtures based on local occupancy and/or light levels. The control system must include luminaire-level lighting control (LLLC) that can switch lights on and off based on occupancy and is capable of full-range dimming based on local light levels.	\$1	8	\$0.60 Per Watt Controlled
		Linear Lamp - MS - LCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$7	15	\$0.20 per kWh and/or \$550 per kW saved
		High/Low Bay Lamp - MS - LCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$162	12	\$0.20 per kWh and/or \$550 per kW saved
		LED Fixture - MS - LCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$72	15	\$0.20 per kWh and/or \$550 per kW saved
		ECM Evap Fan Motor - LCI	per unit	No	Purchase and installation of a ECM motor to replace a permanent split capacitor or shaded pole motor in a commercial refrigeration unit.	\$227	15	\$75
		Evap Fan Controls - LCI	per unit	No	Purchase and installation of ON/OFF controls or multispeed controls for an uncontrolled ECM or permanent split capacitor or shaded pole motor in a commercial refrigeration unit.	\$532	10	\$200
		Refrigerator - Reach In - LCI	per unit	No	Purchase and installation of a new high efficiency packaged commercial refrigerator meeting ENERGY STAR.	\$729	12	\$200
		Freezer - Reach In - LCI	per unit	No	Purchase and installation of a new high efficiency packaged commercial freezer meeting ENERGY STAR.	\$977	12	\$200
		Refrigerated Case Cover - LCI	per lin ft	No	Purchase and installation of night covers on existing open type refrigerated display cases.	\$38	5	\$22
		Anti Sweat Heater Control - LCI	per door	No	Purchase and installation of anti-sweat door heaters on glass refrigerator or freezer doors with either ON/OFF controls or micropulse controls.	\$418	12	\$60
		Strip Curtain - LCI	per sq ft	No	Purchase and installation of strip curtains applied to walk in cooler or freezer doors; curtains must be at least 0.06" thick. Low temp strip curtains must be used on low temp applications.	\$10	4	\$3
		Ice Machine - LCI	per unit	No	Purchase and installation of new ENERGY STAR qualified ice machine.	\$378	8	\$590 0-500 lbs \$960 501-1000 lbs \$1100 over 1000 lbs
		Beverage Vending Machine - Controls - LCI	per unit	No	Retrofit controls for a non ENERGY STAR rated vending machine.	\$180	5	\$125
Beverage Vending Machine - Energy Star - LCI	per unit	No	The purchase and installation of an ENERGY STAR certified beverage vending machine.	\$180	5	\$150		
Steam Cooker - LCI	per unit	No	Purchase and installation of new a ENERGY STAR steam cooker.	\$351	12	\$300 - 3 pan \$400 - 4 pan \$500 - 5 pan \$600 - 6 pan		
Fryer - LCI	per unit	No	Purchase and installation of new a ENERGY STAR fryer.	\$1,038	12	\$500		

Appendix B, Table 7: Eligible Measures

Penelec

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Large	Prescriptive - LCI	Griddle - LCI	per unit	No	Purchase and installation of new a ENERGY STAR griddle.	\$950	12	\$500
		Hot Food Holding Cabinet - LCI	per unit	No	Purchase and installation of new hot food holding cabinet meeting or exceeding ENERGY STAR standards.	\$421	12	\$500 - full size \$375 - 3/4 size \$225 - 1/2 size
		Combination Oven - LCI	per unit	No	Purchase and installation of new Combination Oven meeting or exceeding ENERGY STAR standards.	\$2,512	12	\$1,500
		Convection Oven - LCI	per unit	No	Purchase and installation of new Convection Oven meeting or exceeding ENERGY STAR standards.	\$539	12	\$500
		Dishwasher - LCI	per unit	No	Purchase and installation of a clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$882	10	\$500
		Induction Warmer/Rethernalizer Well - LCI	per unit	No	Purchase and installation of a energy efficient Rethernalizer & Food Warmers.	\$500	15	\$200
		Coffee Brewer - LCI	per unit	No	Purchase and installation of a an ENERGY STAR Type II small, medium, or large coffee brewer.	\$200	15	\$100
		Pre-Rinse Sprayer - LCI	per unit	No	Purchase and installation of a new sprayer replacing an existing unit that use 1.6 GPM or less, on/off squeeze lever, and cleanliness of performance of at least 26 seconds. Electric water heating only.	\$6	8	\$55
	Prescriptive Other - LCI	Refrigerator Recycling - LCI	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	6	\$75
		Freezer Recycling - LCI	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	5	\$75
		Room Air Conditioner Recycling - LCI	per unit	No	Removal of an existing inefficient room air conditioner from service, prior to its natural end of life (early retirement).	\$0	4	\$50
		Dehumidifiers Recycling - LCI	per unit	No	Removal of an existing inefficient room air conditioner from service, prior to its natural end of life (early retirement).	\$0	5	\$50
		EV Charging Cord - Level 2 - LCI	per unit	No	Purchase and installation of an ENERGY STAR rated EV Charger Cord.	\$500	10	\$100
		Clothes Washer Level 1&2 - LCI	per unit	No	Purchase and installation of a clothes washer meeting or exceeding ENERGY STAR, CEE Tier 1, or CEE Tier 2 specifications, as applicable.	\$187	11	\$75
		Clothes Washer Level 3 - LCI	per unit	No	Purchase and installation of a clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$187	11	\$100
		Clothes Dryer - LCI	per unit	No	Purchase and installation of a clothes dryer meeting or exceeding ENERGY STAR specifications with moisture sensor. Heat pump type clothes dryers are eligible.	\$358	12	\$75
		Refrigerator Level 1&2 - LCI	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR, CEE Tier 1 or CEE TIER 2 specifications, as applicable.	\$75	14	\$100
		Refrigerator Level 3 - LCI	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$75	14	\$150
		Water Heater - Heat Pump - LCI	per unit	No	Purchase and installation of new or replacement of inefficient electric water heater with a heat pump water heater with uniform energy factors meeting or exceeding the ENERGY STAR specifications. Solar water heating is also eligible.	\$651	10	\$750
		Freezer - LCI	per unit	No	Purchase and installation of a freezer meeting or exceeding ENERGY STAR specifications.	\$43	11	\$40
Dehumidifier - LCI	per unit	No	Purchase and installation of a new dehumidifier meeting or exceeding ENERGY STAR specifications.	\$11	12	\$25		
Water Cooler - LCI	per unit	No	Purchase and installation of a new water cooler meeting or exceeding ENERGY STAR specifications.	\$49	10	\$25		
Monitor - LCI	per unit	No	Purchase and installation of a new monitor meeting or exceeding ENERGY STAR specifications.	\$2	4	\$8		

Appendix B, Table 7: Eligible Measures

Penelec

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Large	Prescriptive Other LCI	Computer - LCI	per unit	No	Purchase and installation of a new computer meeting or exceeding ENERGY STAR specifications.	\$19	4	\$8
		Uninterruptible Power Supply (UPS) - LCI	per kW rating of UPS	No	Purchase and installation of new UPS (less than 12 kW) that exceeds the minimum average efficiency standard as determined by Table 1 of the Energy Star UPS standard. Table 2 of the standard shall be used in calculating the loading of the UPS.	\$295	10	\$220
		Imaging - LCI	per unit	No	Purchase and installation of a new imaging equipment meeting or exceeding ENERGY STAR specifications.	\$11	6	\$8
		Small Network - LCI	per PC controlled	No	Purchase and installation of network level software that controls desktop computers and monitors power settings with the network. Software must be capable of measuring and managing power consumption of each desktop computer and monitor. Laptops are eligible but savings assume workstation includes desktop monitor, laptop computer with laptop screen in use.	\$30	5	\$15
		Advanced Pwr Strip - LCI	per unit	No	Purchase and installation of a new Tier 1 or Tier 2 Advance Power Strip (APS)	\$34	5	\$25
	Custom - LCI	Custom - Process Improvement - LCI	per project	No	Replacement or retrofit of existing equipment or process changes or enhancements that result in the more efficient use of electrical energy.	\$50,132	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Compressed Air - LCI	per project	No	Purchase and installation of new or replacement or retrofit of existing air compressor systems, including but not limited to: new compressors, air dryers, or increased storage capacity. Other efficiency measures such as: leak repair, controls, high efficiency nozzles, piping enhancements, and no loss drains are also eligible.	\$80,907	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Motors - Three Phase - LCI	per hp	No	Purchase and installation of a new premium efficiency motor as a direct replacement or for new construction applications	\$81,115	15	\$50
		Custom - Refrigeration - LCI	per project	No	Purchase and installation of a new or retrofit of refrigeration measures on small commercial walk-in refrigeration and coolers, including, but not limited to: high efficiency fan motors, evaporator fan controllers, floating head pressure controls, evaporator coil defrost controls and variable speed compressor motors.	\$76,149	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Equipment/Servers - LCI	per project	No	Purchase and installation new or retrofit of data center measures (servers, UPS, HVAC, etc.) and the optimization of those systems to decrease energy usage.	\$54,100	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - HVAC/Chtr/Cntrl - LCI	per project	No	Purchase and installation of HVAC controls/controllers that optimizes ventilation and economization control schemes of a building's HVAC system based on occupancy or sensor level inputs.	\$131,997	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - VFDs < 10HP - LCI	per hp	No	Purchase and installation of a new VFD for an existing motor (less than or equal to 10 hp) driving fans, pumps and other suitable applications. VFD retrofits are not eligible.	\$1,774	15	\$150
		Custom - VFDs > 10 HP - LCI	per hp	No	Purchase and installation of a new VFD for an existing motor (greater than 10 hp) driving fans, pumps and other suitable applications. VFD retrofits are not eligible.	\$9,975	15	\$100
		Custom - Bldg Improvements - LCI	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to: wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$14,733	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - New Construction - LCI	per project	No	Implementation of design principles to reduce building electric consumption using current ASHRAE 90.1 or IECC baselines, as applicable.	\$16,931	15	\$0.20 per kWh and/or \$550 per kW saved
	Custom - Audit & Education - LCI	per Audit	No	Comprehensive Energy Audit for commercial/industrial facilities or manufacturing processes recommending installation of efficient equipment, building shell/envelop improvements, manufacturing process changes, building operating changes, or other energy efficiency improvements. Audit must meet minimum audit requirements for buildings or for process equipment.	\$0	1	\$0.20 per kWh and/or \$550 per kW saved towards cost of audit	
	Energy Management - LCI	Building Tune Up - LCI	Co Assumption	No	Portfolio of measures and services that focus on the adjustment, maintenance and improvement of building systems to achieve maximum operating efficiency, including the installation of energy efficiency measures.	\$176,573	5	Up to 80% of the project cost
		Virtual/Meter Data Commissioning - LCI	per project	No	Assessment of energy usage using meter data and analytics, engineering and building modeling to determine energy saving strategies for the upgrade and/or replacement of building systems including, but not limited to lighting, HVAC, refrigeration, compressed air and other operational energy savings. Additionally, the measure will utilize pre and post enrollment meter usage data to further evaluate building energy savings.	\$9,778	15	\$0.20 per kWh and/or \$550 per kW saved
		Retrocommissioning - LCI	per project	No	Adjusting electrical, electro-mechanical, mechanical and control system set points to improve system performance to existing building conditions and use, including the installation of energy savings measures and implementation of energy savings strategies identified through facility audit or building operations training.	\$159,750	15	\$0.20 per kWh and/or \$550 per kW saved
		Building Operations Training - LCI	per unit	No	Obtain Building Operations Certification (BOC) by attending a certified training program or other training programs as related to the efficient design, operations and maintenance of buildings.	\$5,000	5	Up to 70% of the cost to attend qualified BOC training course and NTE \$1000 per person.
Energy Consultation - LCI		N/A	No	N/A	\$0	0	NA	
Audits - LCI		per Audit	No	Comprehensive Energy Audit for commercial/industrial facilities or manufacturing processes recommending installation of efficient equipment, building shell/envelop improvements, manufacturing process changes, building operating changes, or other energy efficiency improvements. Audit must meet minimum audit requirements for buildings or for process equipment.	\$0	1	\$0.20 per kWh and/or \$550 per kW saved towards cost of audit	

¹ All values listed above for incentives are "Up to Values"

² The Company may provide tiered rebate amounts within the incentive ranges listed above for qualifying products that have varying characteristics (e.g. size, features, etc.)

³ The Company may provide prescriptive rebates in lieu of the performance incentives listed above for certain measures and/or applications where the prescriptive value is within the equivalent performance incentive range.

⁴ The Company may establish incentive tiers and/or incentive block structures within the performance incentives listed above for different end use technology or sub-measures (lighting, HVAC, etc.)

Appendix B, Table 8: Estimated Savings and Participation

Penelec

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
Energy Efficient Products Program	Appliance Recycling	Freezer Recycling	Energy Savings (MWh/year)	613	613	613	613	613	3,066
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.5
			Projected Participation	887	887	887	887	887	4,435
		Refrigerator Recycling	Energy Savings (MWh/year)	3,350	3,350	3,350	3,350	3,350	16,752
			Demand Reduction (MW)	0.6	0.6	0.6	0.6	0.6	3.0
			Projected Participation	3,549	3,549	3,549	3,549	3,549	17,745
		Room Air Conditioner Recycling	Energy Savings (MWh/year)	58	58	58	58	58	291
			Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	0.9
			Projected Participation	512	512	512	512	512	2,560
		Dehumidifier Recycling	Energy Savings (MWh/year)	168	168	168	168	168	838
	Demand Reduction (MW)		0.1	0.1	0.1	0.1	0.1	0.3	
	Projected Participation		335	335	335	335	335	1,675	
	Appliance Rebate	Clothes Washer - Level 1	Energy Savings (MWh/year)	50	50	50	50	50	249
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	425	425	425	425	425	2,125
		Clothes Washer - Level 2	Energy Savings (MWh/year)	70	70	70	70	70	352
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	425	425	425	425	425	2,125
		Clothes Washer - Level 3	Energy Savings (MWh/year)	60	60	60	60	60	302
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	340	340	340	340	340	1,700
		Refrigerator - Level 1	Energy Savings (MWh/year)	44	44	44	44	44	219
	Demand Reduction (MW)		0.0	0.0	0.0	0.0	0.0	0.0	
	Projected Participation		950	950	950	950	950	4,750	
	Refrigerator - Level 2	Energy Savings (MWh/year)	42	42	42	42	42	211	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	475	475	475	475	475	2,375	
	Refrigerator - Level 3	Energy Savings (MWh/year)	28	28	28	28	28	139	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	235	235	235	235	235	1,175	
	Freezer	Energy Savings (MWh/year)	12	12	12	12	12	58	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	320	320	320	320	320	1,600	
	Clothes Dryer	Energy Savings (MWh/year)	22	22	22	22	22	112	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1,190	1,190	1,190	1,190	1,190	5,950	
	Air Purifier / Cleaner	Energy Savings (MWh/year)	165	165	165	165	165	824	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
		Projected Participation	210	210	210	210	210	1,050	
	Room Air Conditioner - Level 1	Energy Savings (MWh/year)	30	30	30	30	30	152	
		Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.3	
		Projected Participation	1,500	1,500	1,500	1,500	1,500	7,500	
	Room Air Conditioner - Level 2	Energy Savings (MWh/year)	30	30	30	30	30	152	
		Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.3	
		Projected Participation	1,500	1,500	1,500	1,500	1,500	7,500	
	Dehumidifier	Energy Savings (MWh/year)	1,007	1,007	1,007	1,007	1,007	5,035	
		Demand Reduction (MW)	0.3	0.3	0.3	0.3	0.3	1.3	
		Projected Participation	4,200	4,200	4,200	4,200	4,200	21,000	
	Water Heater	Energy Savings (MWh/year)	331	331	331	331	331	1,657	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
		Projected Participation	228	228	228	228	228	1,141	
	Pool Pump Variable Speed	Energy Savings (MWh/year)	470	470	470	470	470	2,350	
		Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.6	
		Projected Participation	290	290	290	290	290	1,450	
	Dishwasher	Energy Savings (MWh/year)	3	3	3	3	3	13	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	100	100	100	100	100	500	
	Water Cooler	Energy Savings (MWh/year)	0	0	0	0	0	1	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1	1	1	1	1	5	
	EV Charging Cord - Level 2 - Res	Energy Savings (MWh/year)	0	0	0	0	0	2	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	11	11	11	11	11	55	
	Smart Thermostat - AplnCs	Energy Savings (MWh/year)	246	246	246	246	246	1,231	
		Demand Reduction (MW)	-	-	-	-	-	-	
		Projected Participation	1,070	1,070	1,070	1,070	1,070	5,350	
	Residential Occupancy Sensor	Energy Savings (MWh/year)	0	0	0	0	0	0	
		Demand Reduction (MW)	-	-	-	-	-	-	
		Projected Participation	1	1	1	1	1	5	
	Ceiling Fan	Energy Savings (MWh/year)	24	24	24	24	24	119	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	500	500	500	500	500	2,500	
	Consumer Electronics	Monitor	Energy Savings (MWh/year)	14	14	14	14	14	72
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	523	523	523	523	523	2,615
		Computer	Energy Savings (MWh/year)	22	22	22	22	22	109
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	160	160	160	160	160	800
		Imaging	Energy Savings (MWh/year)	66	66	66	66	66	332
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1,625	1,625	1,625	1,625	1,625	8,125
		Smart Strip Plug Outlet	Energy Savings (MWh/year)	75	75	75	75	75	374
	Demand Reduction (MW)		0.0	0.0	0.0	0.0	0.0	0.0	
	Projected Participation		571	571	571	571	571	2,855	
	TV	Energy Savings (MWh/year)	130	130	130	130	130	652	
		Demand Reduction (MW)	0.4	0.4	0.4	0.4	0.4	2.0	
		Projected Participation	1,500	1,500	1,500	1,500	1,500	7,500	
	Sound Bar	Energy Savings (MWh/year)	0	0	0	0	0	0	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1	1	1	1	1	5	
	Smart Home	Energy Savings (MWh/year)	0	0	0	0	0	0	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1	1	1	1	1	5	

Appendix B, Table 8: Estimated Savings and Participation

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Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
Energy Efficient Products Program	HVAC	Heat Pump - Level 2	Energy Savings (MWh/year)	214	214	214	214	214	1,068
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	75	75	75	75	75	375
		Heat Pump - Level 3	Energy Savings (MWh/year)	140	140	140	140	140	701
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	40	40	40	40	40	200
		Central Air Conditioner - Level 2	Energy Savings (MWh/year)	12	12	12	12	12	62
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	35	35	35	35	35	175
		Central Air Conditioner - Level 3	Energy Savings (MWh/year)	2	2	2	2	2	12
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	5	5	5	5	5	25
		Ductless Mini-Split Heat Pump - Level 3	Energy Savings (MWh/year)	319	319	319	319	319	1,593
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	500	500	500	500	500	2,500
		PTAC - Level 2 - Multi Family	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		PTHP - Level 2 - Multi Family	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Heat Pump - Water & GeoT - ES Tier 3	Energy Savings (MWh/year)	68	68	68	68	68	340
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	20	20	20	20	20	100
		Furnace Fan (Retrofit or New to ECM)	Energy Savings (MWh/year)	4	4	4	4	4	20
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	30	30	30	30	30	150
		Smart Thermostat - HVAC	Energy Savings (MWh/year)	9	9	9	9	9	44
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	40	40	40	40	40	200
		HVAC - Custom	Energy Savings (MWh/year)	13	13	13	13	13	64
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	145	145	145	145	145	725
		Circulating Pump	Energy Savings (MWh/year)	3	3	3	3	3	17
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	19	19	19	19	19	95
		HE Bathroom Fans	Energy Savings (MWh/year)	4	4	4	4	4	19
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	100	100	100	100	100	500
		HVAC Quality Install	Energy Savings (MWh/year)	0	0	0	0	0	0
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Ductless Mini-Split A/C	Energy Savings (MWh/year)	11	11	11	11	11	55
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	70	70	70	70	70	350
Heat Pump (Air-Wtr) w Domestic Hot Water	Energy Savings (MWh/year)	4	4	4	4	4	18		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Energy Efficient Homes Program	Comprehensive Audits	Comprehensive Audit	Energy Savings (MWh/year)	88	175	175	175	175	790
			Demand Reduction (MW)	0.0	0.1	0.1	0.1	0.1	0.4
			Projected Participation	100	200	200	200	200	900
	Multi Family - Res	MF - Tenant - DI - Res	Energy Savings (MWh/year)	11	23	23	23	23	101
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	50	100	100	100	100	450
		MF - Tenant - Prescriptive - Res	Energy Savings (MWh/year)	2	4	4	4	4	18
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	25	50	50	50	50	225
		MF - Tenant - Custom - Res	Energy Savings (MWh/year)	21	42	42	42	42	187
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	76	151	151	151	151	680
		MF - Common - Prescriptive - Res	Energy Savings (MWh/year)	1	1	1	1	1	5
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	2	4	4	4	4	18
	MF - Common - Custom - Res	Energy Savings (MWh/year)	10	20	20	20	20	88	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1	2	2	2	2	9	
	MF - Common - DI - Res	Energy Savings (MWh/year)	36	72	72	72	72	326	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	7	14	14	14	14	63	
	School Education	School Education	Energy Savings (MWh/year)	815	815	815	815	815	4,075
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.5
			Projected Participation	4,400	4,400	4,400	4,400	4,400	22,000
	EE Kits	Energy Efficiency Measures	Energy Savings (MWh/year)	9,950	9,950	9,950	9,950	9,950	49,750
			Demand Reduction (MW)	1.2	1.2	1.2	1.2	1.2	5.9
			Projected Participation	50,000	50,000	50,000	50,000	50,000	250,000
	Behavioral	On-Line Audit	Energy Savings (MWh/year)	845	845	845	845	845	4,225
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.7
			Projected Participation	6,500	6,500	6,500	6,500	6,500	32,500
		Behavioral 2021	Energy Savings (MWh/year)	809	-	-	-	-	809
			Demand Reduction (MW)	0.1	-	-	-	-	0.1
			Projected Participation	20,706	-	-	-	-	20,706
		Behavioral 2022	Energy Savings (MWh/year)	-	1,914	-	-	-	1,914
			Demand Reduction (MW)	-	0.3	-	-	-	0.3
			Projected Participation	-	39,411	-	-	-	39,411
		Behavioral 2023	Energy Savings (MWh/year)	-	-	1,784	-	-	1,784
			Demand Reduction (MW)	-	-	0.3	-	-	0.3
			Projected Participation	-	-	39,411	-	-	39,411
		Behavioral 2024	Energy Savings (MWh/year)	-	-	-	1,627	-	1,627
			Demand Reduction (MW)	-	-	-	0.3	-	0.3
			Projected Participation	-	-	-	39,411	-	39,411
	Behavioral 2025	Energy Savings (MWh/year)	-	-	-	-	1,427	1,427	
		Demand Reduction (MW)	-	-	-	-	0.3	0.3	
		Projected Participation	-	-	-	-	39,411	39,411	

Appendix B, Table 8: Estimated Savings and Participation

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Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total		
Energy Efficient Homes Program	New Homes	NC - Townhouse and duplex units	Energy Savings (MWh/year)	3	3	3	3	3	17		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	2	2	2	2	2	10		
		NC - Two-on-Two condominium units	Energy Savings (MWh/year)	1	1	1	1	1	1	7	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5		
		NC - Single-family detached units	Energy Savings (MWh/year)	200	200	200	200	200	200	1,001	
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.1	0.4	
			Projected Participation	72	72	72	72	72	360		
		NC - Multi Family Low Rise	Energy Savings (MWh/year)	12	12	12	12	12	12	60	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	9	9	9	9	9	45		
		NC - Manufactured Housing	Energy Savings (MWh/year)	12	12	12	12	12	12	61	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	7	7	7	7	7	35		
		NC - Multi Family High Rise	Energy Savings (MWh/year)	1	1	1	1	1	1	7	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5		
		Low Income Energy Efficiency Program	Weatherization	Weatherization (WARM PLUS)	Energy Savings (MWh/year)	653	653	653	653	653	3,265
					Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.4
					Projected Participation	477	477	477	477	477	2,384
WARM Extra Measures	Energy Savings (MWh/year)			793	793	793	793	793	793	3,965	
	Demand Reduction (MW)			0.1	0.1	0.1	0.1	0.1	0.1	0.3	
	Projected Participation			1,239	1,239	1,239	1,239	1,239	6,195		
Freezer Recycling - LI	Energy Savings (MWh/year)			81	81	81	81	81	81	404	
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0	0.1	
	Projected Participation			117	117	117	117	117	585		
Refrigerator Recycling - LI	Energy Savings (MWh/year)			442	442	442	442	442	442	2,209	
	Demand Reduction (MW)			0.1	0.1	0.1	0.1	0.1	0.1	0.4	
	Projected Participation			468	468	468	468	468	2,340		
Room Air Conditioner Recycling - LI	Energy Savings (MWh/year)			6	6	6	6	6	6	31	
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0	0.1	
	Projected Participation			54	54	54	54	54	270		
Dehumidifier Recycling - LI	Energy Savings (MWh/year)			19	19	19	19	19	19	95	
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Projected Participation			38	38	38	38	38	190		
Clothes Washer - Level 1	Energy Savings (MWh/year)			11	11	11	11	11	11	56	
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Projected Participation			95	95	95	95	95	475		
Clothes Washer - Level 2	Energy Savings (MWh/year)	0	0	0	0	0	0	1			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	1	1	1	1	1	5				
Clothes Washer - Level 3	Energy Savings (MWh/year)	0	0	0	0	0	0	1			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	1	1	1	1	1	5				
Refrigerator - Level 1	Energy Savings (MWh/year)	4	4	4	4	4	4	18			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	80	80	80	80	80	400				
Refrigerator - Level 2	Energy Savings (MWh/year)	0	0	0	0	0	0	0			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	1	1	1	1	1	5				
Refrigerator - Level 3	Energy Savings (MWh/year)	0	0	0	0	0	0	1			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	1	1	1	1	1	5				
Freezer	Energy Savings (MWh/year)	0	0	0	0	0	0	2			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	12	12	12	12	12	60				
Clothes Dryer	Energy Savings (MWh/year)	1	1	1	1	1	1	4			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	40	40	40	40	40	200				
Air Purifier / Cleaner	Energy Savings (MWh/year)	3	3	3	3	3	3	16			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	4	4	4	4	4	20				
Room Air Conditioner - Level 1	Energy Savings (MWh/year)	1	1	1	1	1	1	7			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	70	70	70	70	70	350				
Room Air Conditioner - Level 2	Energy Savings (MWh/year)	0	0	0	0	0	0	0			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	1	1	1	1	1	5				
Dehumidifier	Energy Savings (MWh/year)	17	17	17	17	17	17	84			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	70	70	70	70	70	350				
Water Heater	Energy Savings (MWh/year)	-1	-1	-1	-1	-1	-1	-7			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	-1	-1	-1	-1	-1	-5				
Pool Pump Variable-Speed	Energy Savings (MWh/year)	-2	-2	-2	-2	-2	-2	-8			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	-1	-1	-1	-1	-1	-5				
Dishwasher	Energy Savings (MWh/year)	0	0	0	0	0	0	0			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	1	1	1	1	1	5				
Water Cooler	Energy Savings (MWh/year)	0	0	0	0	0	0	1			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	-1	-1	-1	-1	-1	-5				
EV Charging Cord - Level 2 - Res	Energy Savings (MWh/year)	0	0	0	0	0	0	0			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	-1	-1	-1	-1	-1	-5				
Smart Thermostat - Aplncls	Energy Savings (MWh/year)	37	37	37	37	37	37	185			
	Demand Reduction (MW)	-	-	-	-	-	-	-			
	Projected Participation	161	161	161	161	161	805				
LI - School Education	Energy Savings (MWh/year)	563	563	563	563	563	563	2,817			
	Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.1	0.4			
	Projected Participation	2,668	2,668	2,668	2,668	2,668	13,342				
LI - EE Kits	Energy Savings (MWh/year)	1,158	1,158	1,158	1,158	1,158	1,158	5,792			
	Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.1	0.7			
	Projected Participation	5,148	5,148	5,148	5,148	5,148	25,740				

Appendix B, Table 8: Estimated Savings and Participation

Penelec

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total	
Low Income Energy Efficiency Program	LI - Behavioral	On-Line Audit - LI	Energy Savings (MWh/year)	74	74	74	74	74	369	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
			Projected Participation	568	568	568	568	568	2,840	
		Behavioral 2021 - LI	Energy Savings (MWh/year)	644	-	-	-	-	644	
			Demand Reduction (MW)	0.1	-	-	-	-	0.1	
			Projected Participation	13,311	-	-	-	-	13,311	
		Behavioral 2022 - LI	Energy Savings (MWh/year)	-	905	-	-	-	905	
			Demand Reduction (MW)	-	0.2	-	-	-	0.2	
			Projected Participation	-	11,919	-	-	-	11,919	
		Behavioral 2023 - LI	Energy Savings (MWh/year)	-	-	513	-	-	513	
			Demand Reduction (MW)	-	-	0.1	-	-	0.1	
			Projected Participation	-	-	13,311	-	-	13,311	
		Behavioral 2024 - LI	Energy Savings (MWh/year)	-	-	-	800	-	800	
			Demand Reduction (MW)	-	-	-	0.1	-	0.1	
			Projected Participation	-	-	-	11,919	-	11,919	
		Behavioral 2025 - LI	Energy Savings (MWh/year)	-	-	-	-	418	418	
			Demand Reduction (MW)	-	-	-	-	0.1	0.1	
			Projected Participation	-	-	-	-	13,311	13,311	
		LI - Multifamily - Res	MF - Tenant - DI - Res - LI	Energy Savings (MWh/year)	434	434	434	434	434	2,171
				Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.4
				Projected Participation	362	362	362	362	362	1,810
	MF - Tenant - Prescriptive - Res - LI		Energy Savings (MWh/year)	29	29	29	29	29	143	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	362	362	362	362	362	1,810	
	MF - Tenant - Custom - Res - LI		Energy Savings (MWh/year)	113	113	113	113	113	563	
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.3	
			Projected Participation	410	410	410	410	410	2,050	
	MF - Common - Prescriptive - Res - LI		Energy Savings (MWh/year)	0	0	0	0	0	1	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
	MF - Common - Custom - Res - LI		Energy Savings (MWh/year)	10	10	10	10	10	49	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
	MF - Common - DI - Res - LI		Energy Savings (MWh/year)	37	37	37	37	37	187	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
	LI - New Homes		NC -Townhouse and duplex units - LI	Energy Savings (MWh/year)	2	2	2	2	2	8
				Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
				Projected Participation	1	1	1	1	1	5
		NC - Two-on-Two condominium units - LI	Energy Savings (MWh/year)	1	1	1	1	1	7	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		NC - Single-family detached units - LI	Energy Savings (MWh/year)	3	3	3	3	3	14	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
NC - Multi Family Low Rise - LI		Energy Savings (MWh/year)	12	12	12	12	12	60		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
		Projected Participation	9	9	9	9	9	45		
NC - Manufactured Housing - LI	Energy Savings (MWh/year)	2	2	2	2	2	9			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	1	1	1	1	1	5			
NC - Multi Family High Rise - LI	Energy Savings (MWh/year)	1	1	1	1	1	7			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	1	1	1	1	1	5			
C&I Energy Solutions for Business Program - Small	Multi Family - SCI	MF - Tenant - DI - SCI - LI	Energy Savings (MWh/year)	1	1	1	1	1	3	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		MF - Tenant - Prescriptive - SCI - LI	Energy Savings (MWh/year)	0	0	0	0	0	0	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		MF - Tenant - Custom - SCI - LI	Energy Savings (MWh/year)	0	0	0	0	0	1	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		MF - Common - Prescriptive - SCI - LI	Energy Savings (MWh/year)	0	0	0	0	0	1	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		MF - Common - Custom - SCI - LI	Energy Savings (MWh/year)	10	10	10	10	10	49	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		MF - Common - DI - SCI - LI	Energy Savings (MWh/year)	225	225	225	225	225	1,125	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
			Projected Participation	6	6	6	6	6	30	
	MF - Tenant - DI - SCI	Energy Savings (MWh/year)	6	11	11	11	11	51		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
		Projected Participation	25	50	50	50	50	225		
	MF - Tenant - Prescriptive - SCI	Energy Savings (MWh/year)	3	6	6	6	6	25		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
		Projected Participation	35	70	70	70	70	315		
	MF - Tenant - Custom - SCI	Energy Savings (MWh/year)	2	4	4	4	4	17		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
		Projected Participation	7	14	14	14	14	63		
	MF - Common - Prescriptive - SCI	Energy Savings (MWh/year)	2	3	3	3	3	15		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
		Projected Participation	6	12	12	12	12	54		
MF - Common - Custom - SCI	Energy Savings (MWh/year)	10	20	20	20	20	88			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	1	2	2	2	2	9			
MF - Common - DI - SCI	Energy Savings (MWh/year)	36	72	72	72	72	326			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	7	14	14	14	14	63			
Prescriptive - SCI	Air Conditioning - Level 1 <=5.4 Tn - SCI	Energy Savings (MWh/year)	856	856	856	856	856	4,280		
		Demand Reduction (MW)	0.5	0.5	0.5	0.5	0.5	2.3		
		Projected Participation	1,100	1,100	1,100	1,100	1,100	5,500		
	Air Conditioning - Level 1 >5.4 < 20 Tn - SCI	Energy Savings (MWh/year)	141	141	141	141	141	707		
		Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.4		
		Projected Participation	194	194	194	194	194	970		

Appendix B, Table 8: Estimated Savings and Participation

Penelec

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Air Conditioning - Level 1 >=20 Tn - SCI	Energy Savings (MWh/year)	17	17	17	17	17	85
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	9	9	9	9	9	45
		Heat Pump - Level 1 <=5.4 Tn - SCI	Energy Savings (MWh/year)	34	34	34	34	34	172
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	35	35	35	35	35	175
		Heat Pump - Water & GeoT - ES Tier 3 - SCI	Energy Savings (MWh/year)	14	14	14	14	14	69
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	6	6	6	6	6	30
		Ductless Mini-Split HP - Level 3 - SCI	Energy Savings (MWh/year)	58	58	58	58	58	289
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	78	78	78	78	78	390
		PTAC - SCI	Energy Savings (MWh/year)	47	47	47	47	47	236
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	500	500	500	500	500	2,500
		PTHP - SCI	Energy Savings (MWh/year)	18	18	18	18	18	90
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	100	100	100	100	100	500
		Room Air Conditioner - SCI	Energy Savings (MWh/year)	23	23	23	23	23	117
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	310	310	310	310	310	1,550
		Smart Thermostat - Rebate - SCI	Energy Savings (MWh/year)	14	14	14	14	14	70
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	77	77	77	77	77	385
		HVAC - Custom - SCI	Energy Savings (MWh/year)	37	37	37	37	37	183
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Circulating Pump (Mid Strm) - SCI	Energy Savings (MWh/year)	49	49	49	49	49	246
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	310	310	310	310	310	1,550
		HVAC - Maintenance - SCI	Energy Savings (MWh/year)	43	43	43	43	43	216
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	120	120	120	120	120	600
		Furnace Fan (Retrofit or New to ECM) - SCI	Energy Savings (MWh/year)	16	16	16	16	16	79
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	130	130	130	130	130	650
		Lighting Control (Daylight & Occupancy) - SCI	Energy Savings (MWh/year)	2,990	2,990	2,990	2,990	2,990	14,950
			Demand Reduction (MW)	0.8	0.8	0.8	0.8	0.8	3.9
			Projected Participation	7,000	7,000	7,000	7,000	7,000	35,000
		Linear Fluorescent - SCI	Energy Savings (MWh/year)	69	69	69	69	69	344
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	581	581	581	581	581	2,905
		LED Linear - SCI	Energy Savings (MWh/year)	2,401	2,401	2,401	2,401	2,401	12,006
			Demand Reduction (MW)	0.3	0.3	0.3	0.3	0.3	1.7
			Projected Participation	18,000	18,000	18,000	18,000	18,000	90,000
		LED Channel Signage - SCI	Energy Savings (MWh/year)	134	134	134	134	134	670
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	363	363	363	363	363	1,815
		Exit Sign - SCI	Energy Savings (MWh/year)	63	63	63	63	63	316
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	387	387	387	387	387	1,935
		LED Fixture External - SCI	Energy Savings (MWh/year)	408	408	408	408	408	2,040
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	727	727	727	727	727	3,635
		LED Fixture Internal - SCI	Energy Savings (MWh/year)	93	93	93	93	93	465
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	700	700	700	700	700	3,500
		LED Lamp - SCI	Energy Savings (MWh/year)	34	34	34	34	34	172
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1,356	1,356	1,356	1,356	1,356	6,780
		Lighting - Other - SCI	Energy Savings (MWh/year)	22	22	22	22	22	108
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Street & Area Lighting (Customer Owned) - SCI	Energy Savings (MWh/year)	1	1	1	1	1	3
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	1	1	1	1	1	5
		LED Reach in Refrig / Frzr Light - SCI	Energy Savings (MWh/year)	307	307	307	307	307	1,534
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	510	510	510	510	510	2,550
		Lighting - Custom - SCI	Energy Savings (MWh/year)	22	22	22	22	22	108
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Network Lighting Control - SCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	121	121	121	121	121	605
		Linear Lamp - MS - SCI	Energy Savings (MWh/year)	1,286	1,286	1,286	1,286	1,286	6,431
			Demand Reduction (MW)	0.3	0.3	0.3	0.3	0.3	1.7
			Projected Participation	50,000	50,000	50,000	50,000	50,000	250,000
		High/Low Bay Lamp - MS - SCI	Energy Savings (MWh/year)	1,738	1,738	1,738	1,738	1,738	8,689
			Demand Reduction (MW)	0.3	0.3	0.3	0.3	0.3	1.5
			Projected Participation	1,750	1,750	1,750	1,750	1,750	8,750
		LED Fixture - MS - SCI	Energy Savings (MWh/year)	176	176	176	176	176	882
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	2,000	2,000	2,000	2,000	2,000	10,000
		ECM Evap Fan Motor - SCI	Energy Savings (MWh/year)	24	24	24	24	24	118
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	15	15	15	15	15	75
		Evap Fan Controls - SCI	Energy Savings (MWh/year)	19	19	19	19	19	96
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	15	15	15	15	15	75
		Refrigerator - Reach In - SCI	Energy Savings (MWh/year)	20	20	20	20	20	102
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	45	45	45	45	45	225
		Freezer - Reach In - SCI	Energy Savings (MWh/year)	26	26	26	26	26	132
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	31	31	31	31	31	155
		Refrigerated Case Cover - SCI	Energy Savings (MWh/year)	7	7	7	7	7	34
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	155	155	155	155	155	775
		Anti Sweat Heater Controls - SCI	Energy Savings (MWh/year)	32	32	32	32	32	162
Demand Reduction (MW)	0.0		0.0	0.0	0.0	0.0	0.0		
Projected Participation	46		46	46	46	46	230		
Strip Curtain - SCI	Energy Savings (MWh/year)	88	88	88	88	88	439		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation	496	496	496	496	496	2,480		

Appendix B, Table 8: Estimated Savings and Participation

Penelec

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Ice Machine - SCI	Energy Savings (MWh/year)	7	7	7	7	7	36
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	15	15	15	15	15	75
		Beverage Vending Machine - Controls - SCI	Energy Savings (MWh/year)	11	11	11	11	11	56
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	8	8	8	8	8	40
		Beverage Vending Machine - Energy Star - SCI	Energy Savings (MWh/year)	32	32	32	32	32	162
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	23	23	23	23	23	115
		Steam Cooker - SCI	Energy Savings (MWh/year)	127	127	127	127	127	635
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	9	9	9	9	9	45
		Fryer - SCI	Energy Savings (MWh/year)	22	22	22	22	22	111
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	9	9	9	9	9	45
		Griddle - SCI	Energy Savings (MWh/year)	23	23	23	23	23	117
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	9	9	9	9	9	45
		Hot Food Holding Cabinet - SCI	Energy Savings (MWh/year)	16	16	16	16	16	78
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	9	9	9	9	9	45
		Combination Oven - SCI	Energy Savings (MWh/year)	109	109	109	109	109	544
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	6	6	6	6	6	30
		Convection Oven - SCI	Energy Savings (MWh/year)	12	12	12	12	12	58
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	6	6	6	6	6	30
		Dishwasher - SCI	Energy Savings (MWh/year)	3	3	3	3	3	15
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Induction Warmer/Rethermalizer Well - SCI	Energy Savings (MWh/year)	6	6	6	6	6	30
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	15	15	15	15	15	75
		Coffee Brewer - SCI	Energy Savings (MWh/year)	4	4	4	4	4	20
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	3	3	3	3	3	15
		Pre-Rinse Sprayer - SCI	Energy Savings (MWh/year)	136	136	136	136	136	681
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	285	285	285	285	285	1,425
		Agricultural Process Lighting	Energy Savings (MWh/year)	488	488	488	488	488	2,438
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	220	220	220	220	220	1,100
		Auto Milker Takeoff	Energy Savings (MWh/year)	9	9	9	9	9	43
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	20	20	20	20	20	100
		Dairy Scroll Compressor	Energy Savings (MWh/year)	19	19	19	19	19	97
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	20	20	20	20	20	100
		HE Ventilation Fans	Energy Savings (MWh/year)	195	195	195	195	195	974
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	200	200	200	200	200	1,000
		Heat Reclaimer	Energy Savings (MWh/year)	63	63	63	63	63	314
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	8	8	8	8	8	40
		High Volume Low Speed Fan	Energy Savings (MWh/year)	399	399	399	399	399	1,993
			Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	0.8
			Projected Participation	40	40	40	40	40	200
		Livestock Waterer	Energy Savings (MWh/year)	3	3	3	3	3	13
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	5	5	5	5	5	25
		Dairy Vac Pump VSD Control	Energy Savings (MWh/year)	776	776	776	776	776	3,879
			Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	0.8
			Projected Participation	40	40	40	40	40	200
		Low Pressure Irrigation	Energy Savings (MWh/year)	135	135	135	135	135	676
			Demand Reduction (MW)	0.3	0.3	0.3	0.3	0.3	1.6
			Projected Participation	40	40	40	40	40	200
		Custom - Agricultural	Energy Savings (MWh/year)	20	20	20	20	20	98
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	2	2	2	2	2	10
		Dairy Refrigeration Tune-Up	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
Engine Block Heater Timer	Energy Savings (MWh/year)	7	7	7	7	7	33		
	Demand Reduction (MW)	-	-	-	-	-	-		
	Projected Participation	9	9	9	9	9	45		
Street Lighting (Tariff / Utility Owned(EMU))	Energy Savings (MWh/year)	151	151	151	151	151	755		
	Demand Reduction (MW)	-	-	-	-	-	-		
	Projected Participation	250	250	250	250	250	1,250		
Street Lighting (Tariff / Customer Owned(MU))	Energy Savings (MWh/year)	1	1	1	1	1	3		
	Demand Reduction (MW)	-	-	-	-	-	-		
	Projected Participation	1	1	1	1	1	5		

Appendix B, Table 8: Estimated Savings and Participation

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Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
C&I Energy Solutions for Business Program - Small	Prescriptive Other - SCI	Refrigerator Recycling - SCI	Energy Savings (MWh/year)	216	216	216	216	216	1,080
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	224	224	224	224	224	1,120
		Freezer Recycling - SCI	Energy Savings (MWh/year)	39	39	39	39	39	194
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	58	58	58	58	58	290
		Room Air Conditioner Recycling - SCI	Energy Savings (MWh/year)	6	6	6	6	6	28
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	50	50	50	50	50	250
		Dehumidifiers Recycling - SCI	Energy Savings (MWh/year)	4	4	4	4	4	19
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	8	8	8	8	8	40
		EV Charging Cord - Level 2 - SCI	Energy Savings (MWh/year)	0	0	0	0	0	2
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	14	14	14	14	14	70
		Clothes Washer Level 1&2 - SCI	Energy Savings (MWh/year)	5	5	5	5	5	26
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	36	36	36	36	36	180
		Clothes Washer Level 3 - SCI	Energy Savings (MWh/year)	0	0	0	0	0	2
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	3	3	3	3	3	15
		Clothes Dryer - SCI	Energy Savings (MWh/year)	1	1	1	1	1	6
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	71	71	71	71	71	355
		Refrigerator Level 1&2 - SCI	Energy Savings (MWh/year)	10	10	10	10	10	52
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	135	135	135	135	135	675
		Refrigerator Level 3 - SCI	Energy Savings (MWh/year)	2	2	2	2	2	8
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	15	15	15	15	15	75
		Water Heater - Heat Pump - SCI	Energy Savings (MWh/year)	28	28	28	28	28	140
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	36	36	36	36	36	180
		Freezer - SCI	Energy Savings (MWh/year)	1	1	1	1	1	3
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	21	21	21	21	21	105
		Dehumidifier - SCI	Energy Savings (MWh/year)	12	12	12	12	12	59
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	57	57	57	57	57	285
		Water Cooler - SCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Monitor - SCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	11	11	11	11	11	55
		Computer - SCI	Energy Savings (MWh/year)	1	1	1	1	1	7
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	11	11	11	11	11	55
		Uninterruptible Power Supply (UPS) - SCI	Energy Savings (MWh/year)	11	11	11	11	11	56
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	11	11	11	11	11	55
		Imaging - SCI	Energy Savings (MWh/year)	3	3	3	3	3	13
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	11	11	11	11	11	55
		Small Network - SCI	Energy Savings (MWh/year)	3	3	3	3	3	13
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	11	11	11	11	11	55
		Advanced Pwr Strip - SCI	Energy Savings (MWh/year)	1	1	1	1	1	5
Demand Reduction (MW)	-		-	-	-	-	-		
Projected Participation	11		11	11	11	11	55		
C&I Energy Solutions for Business Program - Small	Custom - SCI	Custom - Process Improvement - SCI	Energy Savings (MWh/year)	804	804	804	804	804	4,018
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.5
			Projected Participation	30	30	30	30	30	150
		Custom - Compressed Air - SCI	Energy Savings (MWh/year)	1,177	1,177	1,177	1,177	1,177	5,886
			Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	0.8
			Projected Participation	12	12	12	12	12	60
		Custom - Motors - Three Phase - SCI	Energy Savings (MWh/year)	178	178	178	178	178	892
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	8	8	8	8	8	40
		Custom - Refrigeration - SCI	Energy Savings (MWh/year)	382	382	382	382	382	1,909
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	4	4	4	4	4	20
		Custom - Equipment/Servers - SCI	Energy Savings (MWh/year)	36	36	36	36	36	180
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Custom - HVAC/Chlr/Cntrls - SCI	Energy Savings (MWh/year)	587	587	587	587	587	2,935
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.4
			Projected Participation	16	16	16	16	16	80
		Custom - VFDs < 10HP - SCI	Energy Savings (MWh/year)	443	443	443	443	443	2,217
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.4
			Projected Participation	75	75	75	75	75	375
		Custom - VFDs > 10 HP - SCI	Energy Savings (MWh/year)	199	199	199	199	199	997
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	6	6	6	6	6	30
		Custom - Bldg Improvements - SCI	Energy Savings (MWh/year)	2,014	2,014	2,014	2,014	2,014	10,068
			Demand Reduction (MW)	0.6	0.6	0.6	0.6	0.6	2.9
			Projected Participation	41	41	41	41	41	205
		Custom - New Construction - SCI	Energy Savings (MWh/year)	32	32	32	32	32	160
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Custom - Audit & Education - SCI	Energy Savings (MWh/year)	-	-	-	-	-	-
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	1	1	1	1	1	5

Appendix B, Table 8: Estimated Savings and Participation

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Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
C&I Energy Solutions for Business Program - Small	Energy Management - SCI	Building Tune Up - SCI	Energy Savings (MWh/year)	4,137	8,274	8,274	8,274	8,274	37,232
			Demand Reduction (MW)	0.5	1.1	1.1	1.1	1.1	4.8
			Projected Participation	40	80	80	80	80	360
		Virtual/Meter Data Commissioning - SCI	Energy Savings (MWh/year)	65	130	130	130	130	587
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	2	4	4	4	4	18
		Retrocommissioning - SCI	Energy Savings (MWh/year)	382	764	764	764	764	3,436
			Demand Reduction (MW)	0.0	0.1	0.1	0.1	0.1	0.3
			Projected Participation	4	8	8	8	8	36
		Building Operations Training - SCI	Energy Savings (MWh/year)	218	436	436	436	436	1,961
			Demand Reduction (MW)	0.0	0.1	0.1	0.1	0.1	0.3
			Projected Participation	4	8	8	8	8	36
		Energy Consultation - SCI	Energy Savings (MWh/year)	-	-	-	-	-	-
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	5	5	5	5	5	25
		Audits - SCI	Energy Savings (MWh/year)	-	-	-	-	-	-
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	1	1	1	1	1	5
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	MF - Tenant - DI - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		MF - Tenant - Prescriptive - LCI	Energy Savings (MWh/year)	0	0	0	0	0	0
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		MF - Tenant - Custom - LCI	Energy Savings (MWh/year)	0	0	0	0	0	0
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		MF - Common - Prescriptive - LCI	Energy Savings (MWh/year)	0	0	0	0	0	0
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		MF - Common - Custom - LCI	Energy Savings (MWh/year)	10	10	10	10	10	49
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		MF - Common - DI - LCI	Energy Savings (MWh/year)	5	5	5	5	5	26
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
Prescriptive - LCI	Air Conditioning - Level 1 <=5.4 Tn - LCI	Energy Savings (MWh/year)	15	15	15	15	15	74	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	19	19	19	19	19	95	
	Air Conditioning - Level 1 >5.4 < 20 Tn - LCI	Energy Savings (MWh/year)	76	76	76	76	76	379	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2	
		Projected Participation	104	104	104	104	104	520	
	Air Conditioning - Level 1 >=20 Tn - LCI	Energy Savings (MWh/year)	40	40	40	40	40	198	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
		Projected Participation	21	21	21	21	21	105	
	Heat Pump - Level 1 <=5.4 Tn - LCI	Energy Savings (MWh/year)	16	16	16	16	16	79	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	16	16	16	16	16	80	
	Heat Pump - Water & GeoT - ES Tier 3 - LCI	Energy Savings (MWh/year)	14	14	14	14	14	69	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	6	6	6	6	6	30	
	Ductless Mini-Split HP - Level 3 - LCI	Energy Savings (MWh/year)	49	49	49	49	49	243	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	84	84	84	84	84	420	
PTAC - LCI	Energy Savings (MWh/year)	22	22	22	22	22	108		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation	228	228	228	228	228	1,140		
PTHP - LCI	Energy Savings (MWh/year)	8	8	8	8	8	38		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	42	42	42	42	42	210		
Room Air Conditioner - LCI	Energy Savings (MWh/year)	10	10	10	10	10	52		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation	139	139	139	139	139	695		
Smart Thermostat - Rebate - LCI	Energy Savings (MWh/year)	15	15	15	15	15	76		
	Demand Reduction (MW)	-	-	-	-	-	-		
	Projected Participation	83	83	83	83	83	415		
HVAC - Custom - LCI	Energy Savings (MWh/year)	220	220	220	220	220	1,100		
	Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.3		
	Projected Participation	1	1	1	1	1	5		
Circulating Pump (Mid Strm) - LCI	Energy Savings (MWh/year)	264	264	264	264	264	1,321		
	Demand Reduction (MW)	-	-	-	-	-	-		
	Projected Participation	333	333	333	333	333	1,665		
HVAC - Maintenance - LCI	Energy Savings (MWh/year)	30	30	30	30	30	149		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	83	83	83	83	83	415		
Furnace Fan (Retrofit or New to ECM) - LCI	Energy Savings (MWh/year)	5	5	5	5	5	26		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	42	42	42	42	42	210		
Lighting Controls (Daylight & Occupancy) - LCI	Energy Savings (MWh/year)	2,349	2,349	2,349	2,349	2,349	11,746		
	Demand Reduction (MW)	0.6	0.6	0.6	0.6	0.6	3.1		
	Projected Participation	5,500	5,500	5,500	5,500	5,500	27,500		
Linear Fluorescent - LCI	Energy Savings (MWh/year)	259	259	259	259	259	1,294		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2		
	Projected Participation	2,182	2,182	2,182	2,182	2,182	10,910		
LED Linear - LCI	Energy Savings (MWh/year)	4,991	4,991	4,991	4,991	4,991	24,954		
	Demand Reduction (MW)	0.7	0.7	0.7	0.7	0.7	3.6		
	Projected Participation	37,412	37,412	37,412	37,412	37,412	187,060		
LED Channel Signage - LCI	Energy Savings (MWh/year)	403	403	403	403	403	2,015		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation	1,091	1,091	1,091	1,091	1,091	5,455		
Exit Sign - LCI	Energy Savings (MWh/year)	136	136	136	136	136	678		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation	831	831	831	831	831	4,155		
LED Fixture External - LCI	Energy Savings (MWh/year)	1,225	1,225	1,225	1,225	1,225	6,123		
	Demand Reduction (MW)	-	-	-	-	-	-		
	Projected Participation	2,182	2,182	2,182	2,182	2,182	10,910		
LED Fixture Internal - LCI	Energy Savings (MWh/year)	212	212	212	212	212	1,062		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2		
	Projected Participation	1,600	1,600	1,600	1,600	1,600	8,000		
LED Lamp - LCI	Energy Savings (MWh/year)	89	89	89	89	89	444		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation	3,492	3,492	3,492	3,492	3,492	17,460		
Lighting - Other - LCI	Energy Savings (MWh/year)	22	22	22	22	22	108		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		

Appendix B, Table 8: Estimated Savings and Participation

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Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
C&I Energy Solutions for Business Program - Large	Prescriptive - LCI	Street & Area Lighting (Customer Owned) - LCI	Energy Savings (MWh/year)	1	1	1	1	1	3
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	1	1	1	1	1	5
		LED Reach in Refrig / Frzr Light - LCI	Energy Savings (MWh/year)	306	306	306	306	306	1,531
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	509	509	509	509	509	2,545
		Lighting - Custom - LCI	Energy Savings (MWh/year)	22	22	22	22	22	108
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Network Lighting Control - LCI	Energy Savings (MWh/year)	1	1	1	1	1	4
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	560	560	560	560	560	2,800
		Linear Lamp - MS - LCI	Energy Savings (MWh/year)	2,187	2,187	2,187	2,187	2,187	10,933
			Demand Reduction (MW)	0.6	0.6	0.6	0.6	0.6	2.9
			Projected Participation	85,000	85,000	85,000	85,000	85,000	425,000
		High/Low Bay Lamp - MS - LCI	Energy Savings (MWh/year)	4,965	4,965	4,965	4,965	4,965	24,827
			Demand Reduction (MW)	0.9	0.9	0.9	0.9	0.9	4.4
			Projected Participation	5,000	5,000	5,000	5,000	5,000	25,000
		LED Fixture - MS - LCI	Energy Savings (MWh/year)	407	407	407	407	407	2,035
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.5
			Projected Participation	4,614	4,614	4,614	4,614	4,614	23,070
		ECM Evap Fan Motor - LCI	Energy Savings (MWh/year)	16	16	16	16	16	79
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	10	10	10	10	10	50
		Evap Fan Controls - LCI	Energy Savings (MWh/year)	13	13	13	13	13	64
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	10	10	10	10	10	50
		Refrigerator - Reach In - LCI	Energy Savings (MWh/year)	28	28	28	28	28	140
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	62	62	62	62	62	310
		Freezer - Reach In - LCI	Energy Savings (MWh/year)	18	18	18	18	18	89
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	21	21	21	21	21	105
		Refrigerated Case Cover - LCI	Energy Savings (MWh/year)	5	5	5	5	5	23
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	104	104	104	104	104	520
		Anti Sweat Heater Control - LCI	Energy Savings (MWh/year)	22	22	22	22	22	109
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	31	31	31	31	31	155
		Strip Curtain - LCI	Energy Savings (MWh/year)	59	59	59	59	59	295
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	333	333	333	333	333	1,665
		Ice Machine - LCI	Energy Savings (MWh/year)	5	5	5	5	5	24
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	10	10	10	10	10	50
		Beverage Vending Machine - Controls - LCI	Energy Savings (MWh/year)	7	7	7	7	7	35
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	5	5	5	5	5	25
		Beverage Vending Machine - Energy Star - LCI	Energy Savings (MWh/year)	23	23	23	23	23	113
			Demand Reduction (MW)	-	-	-	-	-	-
Projected Participation	16		16	16	16	16	80		
Steam Cooker - LCI	Energy Savings (MWh/year)	85	85	85	85	85	423		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation	6	6	6	6	6	30		
Fryer - LCI	Energy Savings (MWh/year)	15	15	15	15	15	74		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	6	6	6	6	6	30		
Griddle - LCI	Energy Savings (MWh/year)	16	16	16	16	16	78		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	6	6	6	6	6	30		
Hot Food Holding Cabinet - LCI	Energy Savings (MWh/year)	10	10	10	10	10	52		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	6	6	6	6	6	30		
Combination Oven - LCI	Energy Savings (MWh/year)	73	73	73	73	73	363		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation	4	4	4	4	4	20		
Convection Oven - LCI	Energy Savings (MWh/year)	8	8	8	8	8	39		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	4	4	4	4	4	20		
Dishwasher - LCI	Energy Savings (MWh/year)	3	3	3	3	3	15		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Induction Warmer/Rethermalizer Well - LCI	Energy Savings (MWh/year)	4	4	4	4	4	20		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	10	10	10	10	10	50		
Coffee Brewer - LCI	Energy Savings (MWh/year)	3	3	3	3	3	13		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	2	2	2	2	2	10		
Pre-Rinse Sprayer - LCI	Energy Savings (MWh/year)	34	34	34	34	34	170		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	71	71	71	71	71	355		
Prescriptive Other - LCI	Refrigerator Recycling - LCI	Energy Savings (MWh/year)	7	7	7	7	7	34	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	7	7	7	7	7	35	
	Freezer Recycling - LCI	Energy Savings (MWh/year)	1	1	1	1	1	7	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	2	2	2	2	2	10	
	Room Air Conditioner Recycling - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1	1	1	1	1	5	
	Dehumidifiers Recycling - LCI	Energy Savings (MWh/year)	0	0	0	0	0	2	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1	1	1	1	1	5	
	EV Charging Cord - Level 2 - LCI	Energy Savings (MWh/year)	0	0	0	0	0	2	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	14	14	14	14	14	70	
	Clothes Washer Level 1&2 - LCI	Energy Savings (MWh/year)	5	5	5	5	5	26	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	36	36	36	36	36	180	
	Clothes Washer Level 3 - LCI	Energy Savings (MWh/year)	0	0	0	0	0	2	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	3	3	3	3	3	15	
	Clothes Dryer - LCI	Energy Savings (MWh/year)	1	1	1	1	1	6	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	71	71	71	71	71	355	

Appendix B, Table 8: Estimated Savings and Participation

Penelec

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
C&I Energy Solutions for Business Program - Large	Prescriptive Other - LCI	Refrigerator Level 1& 2 - LCI	Energy Savings (MWh/year)	23	23	23	23	23	116
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	300	300	300	300	300	1,500
		Refrigerator Level 3 - LCI	Energy Savings (MWh/year)	3	3	3	3	3	15
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	30	30	30	30	30	150
		Water Heater - Heat Pump - LCI	Energy Savings (MWh/year)	28	28	28	28	28	140
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	36	36	36	36	36	180
		Freezer - LCI	Energy Savings (MWh/year)	1	1	1	1	1	3
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	21	21	21	21	21	105
		Dehumidifier - LCI	Energy Savings (MWh/year)	12	12	12	12	12	59
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	57	57	57	57	57	285
		Water Cooler - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Monitor - LCI	Energy Savings (MWh/year)	0	0	0	0	0	0
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	4	4	4	4	4	20
		Computer - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	2	2	2	2	2	10
		Uninterruptible Power Supply (UPS) - LCI	Energy Savings (MWh/year)	1	1	1	1	1	5
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Imaging - LCI	Energy Savings (MWh/year)	1	1	1	1	1	4
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	3	3	3	3	3	15
		Small Network - LCI	Energy Savings (MWh/year)	1	1	1	1	1	4
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	3	3	3	3	3	15
		Advanced Pwr Strip - LCI	Energy Savings (MWh/year)	0	0	0	0	0	0
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	1	1	1	1	1	5
	Custom - LCI	Custom - Process Improvement - LCI	Energy Savings (MWh/year)	6,505	6,505	6,505	6,505	6,505	32,523
			Demand Reduction (MW)	0.8	0.8	0.8	0.8	0.8	3.9
			Projected Participation	33	33	33	33	33	165
		Custom - Compressed Air - LCI	Energy Savings (MWh/year)	270	270	270	270	270	1,348
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	1	1	1	1	1	5
		Custom - Motors - Three Phase - LCI	Energy Savings (MWh/year)	1,082	1,082	1,082	1,082	1,082	5,408
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.7
			Projected Participation	8	8	8	8	8	40
		Custom - Refrigeration - LCI	Energy Savings (MWh/year)	127	127	127	127	127	635
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Custom - Equipment/Servers - LCI	Energy Savings (MWh/year)	180	180	180	180	180	902
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	1	1	1	1	1	5
		Custom - HVAC/Chlr/Cntrls - LCI	Energy Savings (MWh/year)	2,200	2,200	2,200	2,200	2,200	11,000
			Demand Reduction (MW)	0.6	0.6	0.6	0.6	0.6	3.1
			Projected Participation	10	10	10	10	10	50
		Custom - VFDs < 10HP - LCI	Energy Savings (MWh/year)	195	195	195	195	195	976
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	33	33	33	33	33	165
		Custom - VFDs > 10 HP - LCI	Energy Savings (MWh/year)	266	266	266	266	266	1,330
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	8	8	8	8	8	40
		Custom - Bldg Improvements - LCI	Energy Savings (MWh/year)	688	688	688	688	688	3,438
			Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	1.0
			Projected Participation	14	14	14	14	14	70
		Custom - New Construction - LCI	Energy Savings (MWh/year)	56	56	56	56	56	282
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	1	1	1	1	1	5
		Custom - Audit & Education - LCI	Energy Savings (MWh/year)	-	-	-	-	-	-
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	1	1	1	1	1	5
		Energy Management - LCI	Building Tune Up - LCI	Energy Savings (MWh/year)	797	1,595	1,595	1,595	1,595
Demand Reduction (MW)				0.2	0.4	0.4	0.4	0.4	1.7
Projected Participation				2	4	4	4	4	18
Virtual/Meter Data Commissioning - LCI	Energy Savings (MWh/year)		98	196	196	196	196	880	
	Demand Reduction (MW)		0.0	0.0	0.0	0.0	0.0	0.1	
	Projected Participation		3	6	6	6	6	27	
Retrocommissioning - LCI	Energy Savings (MWh/year)		1,065	1,065	1,065	1,065	1,065	5,325	
	Demand Reduction (MW)		0.3	0.3	0.3	0.3	0.3	1.4	
	Projected Participation		2	2	2	2	2	10	
Building Operations Training - LCI	Energy Savings (MWh/year)		163	327	327	327	327	1,471	
	Demand Reduction (MW)		0.0	0.0	0.0	0.0	0.0	0.2	
	Projected Participation		3	6	6	6	6	27	
Energy Consultation - LCI	Energy Savings (MWh/year)		-	-	-	-	-	-	
	Demand Reduction (MW)		-	-	-	-	-	-	
	Projected Participation	4	4	4	4	4	20		
Audits - LCI	Energy Savings (MWh/year)	-	-	-	-	-	-		
	Demand Reduction (MW)	-	-	-	-	-	-		
	Projected Participation	1	1	1	1	1	5		

Appendix B, Table 9-1: Program Budget							
Penelec							
Energy Efficient Products Program							
Cost Element	PY13	PY14	PY15	PY16	PY17	Phase IV Total	
Total Budget (\$000)	\$2,466	\$2,396	\$2,393	\$2,393	\$2,392	\$12,039	
Incentives (\$000)	Rebates	\$986	\$986	\$986	\$986	\$986	\$4,932
	Upstream/Midstream Buydown	\$25	\$25	\$25	\$25	\$25	\$127
	Kits	\$0	\$0	\$0	\$0	\$0	\$0
	Direct Install Materials & Labor	\$0	\$0	\$0	\$0	\$0	\$0
	Incentive Total	\$1,012	\$1,012	\$1,012	\$1,012	\$1,012	\$5,059
Non-Incentives (\$000)	Program Design	\$18	\$19	\$19	\$19	\$19	\$92
	Administrative	\$223	\$175	\$172	\$172	\$171	\$912
	EDC Delivery Costs	\$0	\$0	\$0	\$0	\$0	\$0
	CSP Delivery Fees	\$805	\$795	\$795	\$795	\$795	\$3,987
	Marketing	\$309	\$310	\$310	\$310	\$310	\$1,547
	EM&V	\$88	\$85	\$85	\$85	\$85	\$430
	Other ¹	\$11	\$0	\$0	\$0	\$0	\$11
Non-Incentive Total	\$1,454	\$1,384	\$1,381	\$1,381	\$1,380	\$6,980	
Percent Incentives	41%	42%	42%	42%	42%	42%	

Appendix B, Table 9-2: Program Budget							
Penelec							
Energy Efficient Homes Program							
Cost Element	PY13	PY14	PY15	PY16	PY17	Phase IV Total	
Total Budget (\$000)	\$3,633	\$3,744	\$3,741	\$3,741	\$3,740	\$18,598	
Incentives (\$000)	Rebates	\$139	\$189	\$189	\$189	\$189	\$897
	Upstream/Midstream Buydown	\$0	\$0	\$0	\$0	\$0	\$0
	Kits	\$2,229	\$2,229	\$2,229	\$2,229	\$2,229	\$11,145
	Direct Install Materials & Labor	\$18	\$34	\$34	\$34	\$34	\$153
	Incentive Total	\$2,386	\$2,452	\$2,452	\$2,452	\$2,452	\$12,195
Non-Incentives (\$000)	Program Design	\$16	\$18	\$18	\$18	\$18	\$86
	Administrative	\$191	\$166	\$163	\$163	\$162	\$847
	EDC Delivery Costs	\$0	\$0	\$0	\$0	\$0	\$0
	CSP Delivery Fees	\$656	\$724	\$724	\$724	\$724	\$3,551
	Marketing	\$245	\$250	\$250	\$250	\$250	\$1,246
	EM&V	\$130	\$134	\$133	\$133	\$133	\$664
	Other ¹	\$10	\$0	\$0	\$0	\$0	\$10
Non-Incentive Total	\$1,247	\$1,292	\$1,288	\$1,289	\$1,288	\$6,403	
Percent Incentives	66%	65%	66%	66%	66%	66%	

Appendix B, Table 9-3: Program Budget							
Penelec							
Low Income Energy Efficiency Program							
Cost Element		PY13	PY14	PY15	PY16	PY17	Phase IV Total
Total Budget (\$000)		\$3,378	\$3,241	\$3,255	\$3,239	\$3,254	\$16,367
Incentives (\$000)	Rebates	\$104	\$104	\$104	\$104	\$104	\$520
	Upstream/Midstream Buydown	\$0	\$0	\$0	\$0	\$0	\$0
	Kits	\$398	\$398	\$398	\$398	\$398	\$1,992
	Direct Install Materials & Labor	\$1,749	\$1,749	\$1,749	\$1,749	\$1,749	\$8,743
	Incentive Total	\$2,251	\$2,251	\$2,251	\$2,251	\$2,251	\$11,255
Non-Incentives (\$000)	Program Design	\$14	\$13	\$13	\$13	\$13	\$66
	Administrative	\$170	\$122	\$122	\$120	\$121	\$655
	EDC Delivery Costs	\$0	\$0	\$0	\$0	\$0	\$0
	CSP Delivery Fees	\$648	\$575	\$588	\$575	\$588	\$2,973
	Marketing	\$166	\$164	\$165	\$164	\$165	\$824
	EM&V	\$121	\$116	\$116	\$116	\$116	\$584
	Other ¹	\$9	\$0	\$0	\$0	\$0	\$9
	Non-Incentive Total	\$1,127	\$990	\$1,004	\$988	\$1,003	\$5,112
Percent Incentives		67%	69%	69%	70%	69%	69%

Appendix B, Table 9-4: Program Budget							
Penelec							
C&I Energy Solutions for Business Program - Small							
Cost Element ²		PY13	PY14	PY15	PY16	PY17	Phase IV Total
Total Budget (\$000)		\$6,724	\$8,137	\$8,130	\$8,131	\$8,128	\$39,250
Incentives (\$000)	Rebates	\$2,010	\$2,077	\$2,077	\$2,077	\$2,077	\$10,316
	Upstream/Midstream Buydown	\$232	\$232	\$232	\$232	\$232	\$1,158
	Kits	\$0	\$0	\$0	\$0	\$0	\$0
	Direct Install Materials & Labor	\$1,733	\$3,112	\$3,112	\$3,112	\$3,112	\$14,183
	Incentive Total	\$3,975	\$5,421	\$5,421	\$5,421	\$5,421	\$25,657
Non-Incentives (\$000)	Program Design	\$34	\$36	\$36	\$36	\$36	\$177
	Administrative	\$421	\$337	\$330	\$330	\$328	\$1,747
	EDC Delivery Costs	\$0	\$0	\$0	\$0	\$0	\$0
	CSP Delivery Fees	\$1,827	\$1,844	\$1,844	\$1,844	\$1,844	\$9,205
	Marketing	\$206	\$209	\$209	\$209	\$209	\$1,042
	EM&V	\$240	\$290	\$290	\$290	\$290	\$1,400
	Other ¹	\$22	\$0	\$0	\$0	\$0	\$22
	Non-Incentive Total	\$2,749	\$2,717	\$2,710	\$2,710	\$2,708	\$13,594
Percent Incentives		59%	67%	67%	67%	67%	65%

Appendix B, Table 9-5: Program Budget

Penelec

C&I Energy Solutions for Business Program - Large

Cost Element		PY13	PY14	PY15	PY16	PY17	Phase IV Total
Total Budget (\$000)		\$5,817	\$5,691	\$5,685	\$5,685	\$5,683	\$28,561
Incentives (\$000)	Rebates	\$2,404	\$2,431	\$2,431	\$2,431	\$2,431	\$12,126
	Upstream/Midstream Buydown	\$564	\$564	\$564	\$564	\$564	\$2,820
	Kits	\$0	\$0	\$0	\$0	\$0	\$0
	Direct Install Materials & Labor	\$249	\$496	\$496	\$496	\$496	\$2,235
	Incentive Total	\$3,218	\$3,491	\$3,491	\$3,491	\$3,491	\$17,181
Non-Incentives (\$000)	Program Design	\$33	\$29	\$29	\$29	\$29	\$150
	Administrative	\$401	\$277	\$272	\$272	\$270	\$1,492
	EDC Delivery Costs	\$0	\$0	\$0	\$0	\$0	\$0
	CSP Delivery Fees	\$1,793	\$1,554	\$1,554	\$1,554	\$1,554	\$8,007
	Marketing	\$145	\$137	\$136	\$137	\$136	\$690
	EM&V	\$208	\$203	\$203	\$203	\$203	\$1,019
	Other ¹	\$21	\$0	\$0	\$0	\$0	\$21
	Non-Incentive Total	\$2,600	\$2,200	\$2,194	\$2,194	\$2,192	\$11,380
Percent Incentives		55%	61%	61%	61%	61%	60%

¹ Includes External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 10-1: Sector-Specific Summary of EE&C Costs												
Penelec												
Residential Portfolio (including Low Income)												
EE&C Program	Cost Elements (\$)								Total Cost	Expected Acquisition Cost (\$/MWh)	Levelized Cost (\$/MWh)	Expected Acquisition Cost (\$/MW)
	Incentives	Program Design	Administrative	EDC Delivery Costs	CSP Delivery Fees	Marketing	EM&V	Other (Describe)				
<i>Energy Efficient Products Program</i>	\$5,059	-	-	-	\$3,987	\$1,313	\$430	-	\$10,788	\$0.27	\$0.34	\$1,046
<i>Energy Efficient Homes Program</i>	\$12,195	-	-	-	\$3,551	\$1,028	\$664	-	\$17,437	\$0.26	\$0.16	\$1,841
<i>Low Income Energy Efficiency Program</i>	\$11,255	-	-	-	\$2,973	\$657	\$584	-	\$15,469	\$0.60	\$0.41	\$4,036
Sector Total	\$28,510	\$0	\$0	\$0	\$10,511	\$2,997	\$1,677	\$0	\$43,695	\$1	\$0.92	\$6,922

Appendix B, Table 10-2: Sector-Specific Summary of EE&C Costs												
Penelec												
Small Commercial & Industrial ¹												
EE&C Program	Cost Elements (\$)								Total Cost	Expected Acquisition Cost (\$/MWh)	Levelized Cost (\$/MWh)	Expected Acquisition Cost (\$/MW)
	Incentives	Program Design	Administrative	EDC Delivery Costs	CSP Delivery Fees	Marketing	EM&V	Other (Describe)				
<i>C&I Energy Solutions for Business Program - Small</i>	\$25,657	-	-	-	\$9,205	\$593	\$1,400	-	\$36,856	\$0.25	\$0.23	\$1,299
Sector Total	\$25,657	\$0	\$0	\$0	\$9,205	\$593	\$1,400	\$0	\$36,856	\$0	\$0.23	\$1,299

Appendix B, Table 10-3: Sector-Specific Summary of EE&C Cost												
Penelec												
Large Commercial & Industrial												
EE&C Program	Cost Elements (\$)								Total Cost	Expected Acquisition Cost (\$/MWh)	Levelized Cost (\$/MWh)	Expected Acquisition Cost (\$/MW)
	Incentives	Program Design	Administrative	EDC Delivery Costs	CSP Delivery Fees	Marketing	EM&V	Other (Describe)				
<i>C&I Energy Solutions for Business Program - Large</i>	\$17,181	-	-	-	\$8,007	\$310	\$1,019	-	\$26,517	\$0.16	\$0.17	\$900
Sector Total	\$17,181	\$0	\$0	\$0	\$8,007	\$310	\$1,019	\$0	\$26,517	\$0	\$0.17	\$900

¹ Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 11: Allocation of Common Costs to Applicable Customer Sector

Penelec

Common Cost Element	Total Cost (\$000)	Basis for Cost Allocation ³	Sector Cost Allocation (\$000)		
			Residential (Including Low Income)	Commercial & Industrial - Small	Commercial & Industrial - Large
Program Design	\$573	See Footnote 3	\$245	\$177	\$150
Administrative	\$5,653	See Footnote 3	\$2,414	\$1,747	\$1,492
Marketing ¹	\$1,450	See Footnote 3	\$620	\$449	\$381
Other (Describe) ²	\$73	See Footnote 3	\$30	\$22	\$21
Totals	\$7,748		\$3,309	\$2,395	\$2,044

¹ Includes Utility Marketing/General Awareness

² Includes External Legal

³ Ratio of each programs specific delivery and marketing costs

Appendix B, Table 12: Summary of Portfolio EE&C Costs			
Penelec			
Portfolio	Total Sector Portfolio-specific Costs	Total Common Costs	Total of All Costs
<i>Residential (Including Low Income)</i>	\$43,695	\$3,309	\$47,005
<i>Commercial/Industrial -- Small¹</i>	\$36,856	\$2,395	\$39,250
<i>Commercial/Industrial -- Large</i>	\$26,517	\$2,044	\$28,561
Totals	\$107,068	\$7,748	\$114,816

¹ Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 13-1: TRC Benefits Table (Gross)

Penelec												
Portfolio		NTGR & TRC Ratio		TRC Costs By Program Per Year (\$000)				TRC Benefits By Program Per Year (\$000)				
Program	Program Year	NTGR	TRC	Incremental Measure Cost		Program Administration Cost	Total TRC Costs	Capacity Benefits	Energy Benefits	Fossil Fuel Benefits	O&M and Water Benefits	Total TRC Benefits
				Paid by EDC	Paid by Participants							
<i>Energy Efficient Products Program</i>	PY13	1.0	0.9	\$1,138	\$1,460	\$1,454	\$4,053	\$1,713	\$1,855	\$8	\$207	\$3,784
	PY14	1.0	1.0	\$1,018	\$1,391	\$1,384	\$3,793	\$1,659	\$1,821	\$8	\$197	\$3,685
	PY15	1.0	1.0	\$904	\$1,324	\$1,381	\$3,609	\$1,612	\$1,799	\$8	\$187	\$3,606
	PY16	1.0	1.0	\$795	\$1,261	\$1,381	\$3,437	\$1,566	\$1,786	\$8	\$178	\$3,538
	PY17	1.0	1.1	\$692	\$1,201	\$1,380	\$3,273	\$1,521	\$1,776	\$8	\$170	\$3,475
Energy Efficient Products Program Total	1.0	1.0	\$4,548	\$6,637	\$6,980	\$18,165	\$8,072	\$9,038	\$38	\$940	\$18,088	
<i>Energy Efficient Homes Program</i>	PY13	1.0	1.5	\$2,394	\$168	\$1,247	\$3,809	\$1,937	\$3,881	\$2	\$53	\$5,873
	PY14	1.0	1.6	\$2,218	\$160	\$1,292	\$3,671	\$1,877	\$3,829	\$2	\$51	\$5,759
	PY15	1.0	1.6	\$2,052	\$153	\$1,288	\$3,493	\$1,824	\$3,791	\$2	\$48	\$5,665
	PY16	1.0	1.7	\$1,893	\$145	\$1,289	\$3,327	\$1,771	\$3,757	\$2	\$46	\$5,576
	PY17	1.0	1.7	\$1,741	\$138	\$1,288	\$3,167	\$1,721	\$3,721	\$2	\$44	\$5,487
Energy Efficient Homes Program Total	1.0	1.6	\$10,298	\$765	\$6,403	\$17,466	\$9,130	\$18,978	\$11	\$241	\$28,360	
<i>Low Income Energy Efficiency Program</i>	PY13	1.0	0.6	\$2,584	\$41	\$1,127	\$3,752	\$793	\$1,500	\$1	\$25	\$2,319
	PY14	1.0	0.7	\$2,414	\$39	\$990	\$3,442	\$769	\$1,479	\$1	\$24	\$2,272
	PY15	1.0	0.7	\$2,250	\$37	\$1,004	\$3,291	\$747	\$1,464	\$1	\$22	\$2,234
	PY16	1.0	0.7	\$2,098	\$35	\$988	\$3,120	\$725	\$1,451	\$1	\$21	\$2,198
	PY17	1.0	0.7	\$1,948	\$33	\$1,003	\$2,985	\$705	\$1,438	\$1	\$20	\$2,164
Low Income Energy Efficiency Program Total	1.0	0.7	\$11,293	\$185	\$5,112	\$16,590	\$3,738	\$7,331	\$5	\$112	\$11,187	
<i>C&I Energy Solutions for Business Program - Small</i>	PY13	1.0	1.3	\$3,975	\$5,723	\$2,749	\$12,447	\$6,964	\$9,213	\$0	\$559	\$16,736
	PY14	1.0	1.4	\$3,656	\$5,450	\$2,717	\$11,823	\$6,752	\$9,072	\$0	\$532	\$16,356
	PY15	1.0	1.4	\$3,353	\$5,191	\$2,710	\$11,254	\$6,559	\$8,956	\$0	\$506	\$16,021
	PY16	1.0	1.5	\$3,064	\$4,944	\$2,710	\$10,718	\$6,372	\$8,857	\$0	\$481	\$15,710
	PY17	1.0	1.5	\$2,790	\$4,708	\$2,708	\$10,206	\$6,190	\$8,763	\$0	\$458	\$15,412
C&I Energy Solutions for Business Program - Small Total	1.0	1.4	\$16,838	\$26,016	\$13,594	\$56,448	\$32,837	\$44,860	\$1	\$2,536	\$80,234	
<i>C&I Energy Solutions for Business Program - Large</i>	PY13	1.0	1.7	\$3,218	\$6,741	\$2,600	\$12,558	\$7,993	\$11,881	\$0	\$1,102	\$20,977
	PY14	1.0	1.8	\$2,960	\$6,420	\$2,200	\$11,579	\$7,751	\$11,698	\$0	\$1,049	\$20,498
	PY15	1.0	1.8	\$2,714	\$6,114	\$2,194	\$11,022	\$7,530	\$11,547	\$0	\$998	\$20,075
	PY16	1.0	1.9	\$2,481	\$5,823	\$2,194	\$10,498	\$7,315	\$11,417	\$0	\$950	\$19,681
	PY17	1.0	1.9	\$2,258	\$5,545	\$2,192	\$9,996	\$7,106	\$11,292	\$0	\$904	\$19,301
C&I Energy Solutions for Business Program - Large Total	1.0	1.8	\$13,631	\$30,642	\$11,380	\$55,653	\$37,694	\$57,834	\$1	\$5,003	\$100,533	
Total			1.5	\$56,608	\$64,246	\$43,469	\$164,322	\$91,471	\$138,042	\$57	\$8,832	\$238,402

Appendix B, Table 13-2: TRC Benefits Table (Net)

Penelec

Portfolio	NTGR & TRC Ratio			TRC Costs By Program Per Year (\$000)				TRC Benefits By Program Per Year (\$000)					
	Program	Program Year	NTGR	TRC	Incremental Measure Cost		Program Administration Cost	Total TRC Costs	Capacity Benefits	Energy Benefits	Fossil Fuel Benefits	O&M and Water Benefits	Total TRC Benefits
					Paid by EDC	Paid by Participants							
<i>Energy Efficient Products Program</i>	PY13	0.5	0.7	\$1,138	\$470	\$1,454	\$3,063	\$866	\$920	\$4	\$207	\$1,997	
	PY14	0.5	0.7	\$1,018	\$448	\$1,384	\$2,850	\$839	\$903	\$4	\$197	\$1,943	
	PY15	0.5	0.7	\$904	\$427	\$1,381	\$2,711	\$815	\$892	\$4	\$187	\$1,898	
	PY16	0.5	0.7	\$795	\$406	\$1,381	\$2,582	\$792	\$886	\$4	\$178	\$1,859	
	PY17	0.5	0.7	\$692	\$387	\$1,380	\$2,458	\$769	\$881	\$4	\$170	\$1,823	
Energy Efficient Products Program Total	0.5	0.7	\$4,548	\$2,138	\$6,980	\$13,665	\$4,081	\$4,481	\$19	\$940	\$9,521		
<i>Energy Efficient Homes Program</i>	PY13	0.8	1.2	\$2,394	\$99	\$1,247	\$3,740	\$1,444	\$2,866	\$2	\$53	\$4,365	
	PY14	0.8	1.2	\$2,218	\$95	\$1,292	\$3,605	\$1,400	\$2,827	\$2	\$51	\$4,279	
	PY15	0.8	1.2	\$2,052	\$90	\$1,288	\$3,430	\$1,360	\$2,798	\$2	\$48	\$4,208	
	PY16	0.8	1.3	\$1,893	\$86	\$1,289	\$3,267	\$1,321	\$2,772	\$2	\$46	\$4,141	
	PY17	0.8	1.3	\$1,741	\$82	\$1,288	\$3,111	\$1,283	\$2,745	\$2	\$44	\$4,074	
Energy Efficient Homes Program Total	0.9	1.2	\$10,298	\$452	\$6,403	\$17,153	\$6,809	\$14,009	\$8	\$241	\$21,066		
<i>Low Income Energy Efficiency Program</i>	PY13	1.0	0.6	\$2,584	\$41	\$1,127	\$3,752	\$793	\$1,500	\$1	\$25	\$2,319	
	PY14	1.0	0.7	\$2,414	\$39	\$990	\$3,442	\$769	\$1,479	\$1	\$24	\$2,272	
	PY15	1.0	0.7	\$2,250	\$37	\$1,004	\$3,291	\$747	\$1,464	\$1	\$22	\$2,234	
	PY16	1.0	0.7	\$2,098	\$35	\$988	\$3,120	\$725	\$1,451	\$1	\$21	\$2,198	
	PY17	1.0	0.7	\$1,948	\$33	\$1,003	\$2,985	\$705	\$1,438	\$1	\$20	\$2,164	
Low Income Energy Efficiency Program Total	1.0	0.7	\$11,293	\$185	\$5,112	\$16,590	\$3,738	\$7,331	\$5	\$112	\$11,187		
<i>C&I Energy Solutions for Business Program - Small</i>	PY13	0.7	1.2	\$3,975	\$2,913	\$2,749	\$9,637	\$4,790	\$6,675	\$0	\$559	\$12,024	
	PY14	0.7	1.3	\$3,656	\$2,774	\$2,717	\$9,147	\$4,645	\$6,573	\$0	\$532	\$11,750	
	PY15	0.7	1.3	\$3,353	\$2,642	\$2,710	\$8,705	\$4,512	\$6,489	\$0	\$506	\$11,507	
	PY16	0.7	1.4	\$3,064	\$2,516	\$2,710	\$8,291	\$4,383	\$6,417	\$0	\$481	\$11,282	
	PY17	0.7	1.4	\$2,790	\$2,396	\$2,708	\$7,894	\$4,258	\$6,349	\$0	\$458	\$11,065	
C&I Energy Solutions for Business Program - Small Total	0.7	1.3	\$16,838	\$13,241	\$13,594	\$43,673	\$22,589	\$32,504	\$1	\$2,536	\$57,629		
<i>C&I Energy Solutions for Business Program - Large</i>	PY13	0.7	1.6	\$3,218	\$4,241	\$2,600	\$10,059	\$5,898	\$8,783	\$0	\$1,102	\$15,784	
	PY14	0.7	1.7	\$2,960	\$4,039	\$2,200	\$9,199	\$5,719	\$8,648	\$0	\$1,049	\$15,416	
	PY15	0.7	1.7	\$2,714	\$3,847	\$2,194	\$8,755	\$5,556	\$8,536	\$0	\$998	\$15,090	
	PY16	0.7	1.8	\$2,481	\$3,664	\$2,194	\$8,339	\$5,397	\$8,439	\$0	\$950	\$14,786	
	PY17	0.7	1.8	\$2,258	\$3,489	\$2,192	\$7,940	\$5,243	\$8,346	\$0	\$904	\$14,492	
C&I Energy Solutions for Business Program - Large Total	0.7	1.7	\$13,631	\$19,281	\$11,380	\$44,292	\$27,812	\$42,751	\$1	\$5,003	\$75,567		
Total			1.3	\$56,608	\$35,296	\$43,469	\$135,373	\$65,029	\$101,076	\$33	\$8,832	\$174,971	

**Appendix C:
Company Program Tables**

Appendix C, Table 1-1: Program Cost by Program Year

Penelec Program Year 13

Program	Sub-Program	Incentives (\$000)					Non-Incentives (\$000)						Totals
		Rebates	Upstream/Midstream/Buildout	Kits	Direct Install Materials & Labor	Program Design	Administrative	Delivery Fees	Marketing	EM&V	Other ¹		
Energy Efficient Products Program	Appliance Recycling	\$287	\$0	\$0	\$0	\$12	\$142	\$536	\$150	\$42	\$7	\$1,176	
	Appliance Rebate	\$509	\$0	\$0	\$0	\$3	\$34	\$133	\$68	\$28	\$2	\$775	
	Consumer Electronics	\$0	\$25	\$0	\$0	\$0	\$3	\$11	\$1	\$2	\$0	\$42	
	HVAC	\$191	\$0	\$0	\$0	\$4	\$44	\$125	\$89	\$17	\$2	\$472	
	Subtotal	\$986	\$25	\$0	\$0	\$18	\$223	\$805	\$309	\$88	\$11	\$2,466	
Energy Efficient Homes Program	Comprehensive Audits	\$50	\$0	\$0	\$0	\$2	\$25	\$78	\$41	\$7	\$1	\$204	
	Behavioral	\$0	\$0	\$0	\$0	\$5	\$58	\$236	\$18	\$12	\$3	\$331	
	Multi Family - Res	\$0	\$0	\$0	\$18	\$1	\$13	\$52	\$14	\$4	\$1	\$102	
	School Education	\$0	\$0	\$154	\$0	\$2	\$28	\$59	\$76	\$12	\$1	\$333	
	EE Kits	\$0	\$0	\$2,075	\$0	\$3	\$34	\$108	\$57	\$84	\$2	\$2,364	
	New Homes	\$89	\$0	\$0	\$0	\$3	\$33	\$122	\$38	\$11	\$2	\$298	
	Subtotal	\$139	\$0	\$2,229	\$18	\$16	\$191	\$656	\$245	\$130	\$10	\$3,633	
Low Income Energy Efficiency Program	Weatherization	\$0	\$0	\$0	\$1,269	\$3	\$38	\$185	\$16	\$56	\$2	\$1,568	
	LI - Appliances	\$94	\$0	\$0	\$0	\$2	\$28	\$109	\$26	\$10	\$1	\$271	
	LI - Behavioral	\$0	\$0	\$0	\$0	\$2	\$31	\$123	\$7	\$6	\$2	\$170	
	LI - School Education	\$0	\$0	\$131	\$0	\$2	\$23	\$26	\$63	\$9	\$1	\$255	
	LI - EE Kits	\$0	\$0	\$268	\$0	\$1	\$10	\$29	\$17	\$12	\$1	\$338	
	LI - Multifamily - Res	\$0	\$0	\$0	\$479	\$3	\$40	\$168	\$36	\$27	\$2	\$755	
	LI - New Homes	\$10	\$0	\$0	\$0	\$0	\$2	\$8	\$1	\$1	\$0	\$21	
Subtotal	\$104	\$0	\$398	\$1,749	\$14	\$170	\$648	\$166	\$121	\$9	\$3,378		
Residential Total	\$1,230	\$25	\$2,627	\$1,766	\$48	\$584	\$2,109	\$720	\$338	\$30	\$9,477		
C&I Energy Solutions for Business Program - Small ²	Multi Family - SCI	\$0	\$0	\$0	\$368	\$5	\$66	\$273	\$46	\$28	\$3	\$789	
	Prescriptive - SCI	\$1,098	\$232	\$0	\$0	\$9	\$112	\$501	\$42	\$74	\$6	\$2,073	
	Prescriptive Other - SCI	\$49	\$0	\$0	\$0	\$1	\$9	\$36	\$10	\$4	\$0	\$108	
	Custom - SCI	\$792	\$0	\$0	\$0	\$9	\$107	\$455	\$61	\$53	\$6	\$1,482	
	Energy Management - SCI	\$71	\$0	\$0	\$1,365	\$10	\$126	\$562	\$48	\$81	\$7	\$2,271	
	Subtotal	\$2,010	\$232	\$0	\$1,733	\$34	\$421	\$1,827	\$206	\$240	\$22	\$6,724	
Small Commercial & Industrial Total	\$2,010	\$232	\$0	\$1,733	\$34	\$421	\$1,827	\$206	\$240	\$22	\$6,724		
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$2	
	Prescriptive - LCI	\$996	\$564	\$0	\$0	\$9	\$114	\$514	\$37	\$83	\$6	\$2,324	
	Prescriptive Other - LCI	\$40	\$0	\$0	\$0	\$0	\$3	\$11	\$2	\$2	\$0	\$58	
	Custom - LCI	\$1,236	\$0	\$0	\$0	\$17	\$212	\$944	\$80	\$93	\$11	\$2,593	
	Energy Management - LCI	\$133	\$0	\$0	\$247	\$6	\$72	\$324	\$25	\$30	\$4	\$840	
	Subtotal	\$2,404	\$564	\$0	\$249	\$33	\$401	\$1,793	\$145	\$208	\$21	\$5,817	
Large Commercial & Industrial Total	\$2,404	\$564	\$0	\$249	\$33	\$401	\$1,793	\$145	\$208	\$21	\$5,817		
Non-Residential Total	\$4,414	\$796	\$0	\$1,982	\$67	\$1,982	\$3,620	\$350	\$447	\$42	\$12,542		
Total	\$5,644	\$821	\$2,627	\$3,749	\$115	\$1,406	\$5,728	\$1,070	\$786	\$73	\$22,019		

¹ External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix C, Table 1-2: Program Cost by Program Year

Penelec Program Year 14

Program	Sub-Program	Incentives (\$000)					Non-Incentives (\$000)					Totals
		Rebates	Upstream/Midstream/Buildout	Kits	Direct Install Materials & Labor	Program Design	Administrative	CSP Delivery Fees	Marketing	EM&V	Other ¹	
Energy Efficient Products Program	Appliance Recycling	\$287	\$0	\$0	\$0	\$12	\$111	\$527	\$151	\$40	\$0	\$1,127
	Appliance Rebate	\$509	\$0	\$0	\$0	\$3	\$27	\$133	\$68	\$27	\$0	\$767
	Consumer Electronics	\$0	\$25	\$0	\$0	\$0	\$2	\$11	\$2	\$1	\$0	\$42
	HVAC	\$191	\$0	\$0	\$0	\$4	\$35	\$125	\$89	\$16	\$0	\$461
	Subtotal	\$986	\$25	\$0	\$0	\$19	\$175	\$795	\$310	\$85	\$0	\$2,396
Energy Efficient Homes Program	Comprehensive Audits	\$100	\$0	\$0	\$0	\$3	\$28	\$127	\$44	\$11	\$0	\$314
	Behavioral	\$0	\$0	\$0	\$0	\$8	\$76	\$390	\$26	\$19	\$0	\$520
	Multi Family - Res	\$0	\$0	\$0	\$34	\$1	\$10	\$54	\$14	\$4	\$0	\$117
	School Education	\$0	\$0	\$154	\$0	\$2	\$17	\$29	\$75	\$10	\$0	\$287
	EE Kits	\$0	\$0	\$2,075	\$0	\$2	\$15	\$35	\$54	\$81	\$0	\$2,260
	New Homes	\$89	\$0	\$0	\$0	\$2	\$21	\$89	\$37	\$9	\$0	\$247
	Subtotal	\$189	\$0	\$2,229	\$34	\$18	\$166	\$724	\$250	\$134	\$0	\$3,744
Low Income Energy Efficiency Program	Weatherization	\$0	\$0	\$0	\$1,269	\$3	\$29	\$178	\$16	\$55	\$0	\$1,549
	LI - Appliances	\$94	\$0	\$0	\$0	\$2	\$20	\$95	\$26	\$9	\$0	\$246
	LI - Behavioral	\$0	\$0	\$0	\$0	\$2	\$21	\$108	\$6	\$5	\$0	\$143
	LI - School Education	\$0	\$0	\$131	\$0	\$2	\$16	\$13	\$63	\$8	\$0	\$232
	LI - EE Kits	\$0	\$0	\$268	\$0	\$1	\$6	\$21	\$17	\$12	\$0	\$325
	LI - Multifamily - Res	\$0	\$0	\$0	\$479	\$3	\$29	\$155	\$36	\$26	\$0	\$729
	LI - New Homes	\$10	\$0	\$0	\$0	\$0	\$1	\$4	\$0	\$1	\$0	\$16
Subtotal	\$104	\$0	\$398	\$1,749	\$13	\$122	\$575	\$164	\$116	\$0	\$3,241	
Residential Total		\$1,280	\$25	\$2,627	\$1,782	\$49	\$464	\$2,094	\$724	\$335	\$0	\$9,381
C&I Energy Solutions for Business Program - Small ²	Multi Family - SCI	\$0	\$0	\$0	\$382	\$5	\$50	\$262	\$46	\$28	\$0	\$773
	Prescriptive - SCI	\$1,098	\$232	\$0	\$0	\$8	\$77	\$430	\$39	\$70	\$0	\$1,952
	Prescriptive Other - SCI	\$49	\$0	\$0	\$0	\$1	\$7	\$33	\$10	\$4	\$0	\$102
	Custom - SCI	\$792	\$0	\$0	\$0	\$8	\$75	\$396	\$59	\$49	\$0	\$1,379
	Energy Management - SCI	\$138	\$0	\$0	\$2,730	\$14	\$128	\$724	\$56	\$140	\$0	\$3,930
Subtotal	\$2,077	\$232	\$0	\$3,112	\$36	\$337	\$1,844	\$209	\$290	\$0	\$8,137	
Small Commercial & Industrial Total		\$2,077	\$232	\$0	\$3,112	\$36	\$337	\$1,844	\$209	\$290	\$0	\$8,137
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$2
	Prescriptive - LCI	\$996	\$564	\$0	\$0	\$9	\$81	\$458	\$35	\$79	\$0	\$2,222
	Prescriptive Other - LCI	\$40	\$0	\$0	\$0	\$0	\$2	\$7	\$2	\$2	\$0	\$53
	Custom - LCI	\$1,236	\$0	\$0	\$0	\$14	\$135	\$748	\$73	\$82	\$0	\$2,288
	Energy Management - LCI	\$159	\$0	\$0	\$494	\$6	\$60	\$340	\$26	\$40	\$0	\$1,125
Subtotal	\$2,431	\$564	\$0	\$496	\$29	\$277	\$1,554	\$137	\$203	\$0	\$5,691	
Large Commercial & Industrial Total		\$2,431	\$564	\$0	\$496	\$29	\$277	\$1,554	\$137	\$203	\$0	\$5,691
Non-Residential Total		\$4,507	\$796	\$0	\$3,609	\$65	\$614	\$3,398	\$346	\$493	\$0	\$13,828
Total		\$5,787	\$821	\$2,627	\$5,391	\$115	\$1,077	\$5,492	\$1,070	\$828	\$0	\$23,209

¹ External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix C, Table 1-3: Program Cost by Program Year

Penelec Program Year 15

Program	Sub-Program	Incentives (\$000)					Non-Incentives (\$000)						Totals
		Rebates	Upstream/Midstream/Buildout	Kits	Direct Install Materials & Labor	Program Design	Administrative	CSP Delivery Fees	Marketing	EM&V	Other ¹		
Energy Efficient Products Program	Appliance Recycling	\$287	\$0	\$0	\$0	\$12	\$109	\$527	\$150	\$40	\$0	\$1,125	
	Appliance Rebate	\$509	\$0	\$0	\$0	\$3	\$26	\$133	\$68	\$27	\$0	\$766	
	Consumer Electronics	\$0	\$25	\$0	\$0	\$0	\$2	\$11	\$2	\$1	\$0	\$42	
	HVAC	\$191	\$0	\$0	\$0	\$4	\$34	\$125	\$89	\$16	\$0	\$460	
	Subtotal	\$986	\$25	\$0	\$0	\$19	\$172	\$795	\$310	\$85	\$0	\$2,393	
Energy Efficient Homes Program	Comprehensive Audits	\$100	\$0	\$0	\$0	\$3	\$28	\$127	\$44	\$11	\$0	\$313	
	Behavioral	\$0	\$0	\$0	\$0	\$8	\$75	\$390	\$26	\$18	\$0	\$518	
	Multi Family - Res	\$0	\$0	\$0	\$34	\$1	\$10	\$54	\$14	\$4	\$0	\$117	
	School Education	\$0	\$0	\$154	\$0	\$2	\$17	\$29	\$75	\$10	\$0	\$287	
	EE Kits	\$0	\$0	\$2,075	\$0	\$2	\$14	\$35	\$54	\$81	\$0	\$2,260	
	New Homes	\$89	\$0	\$0	\$0	\$2	\$20	\$89	\$37	\$9	\$0	\$246	
	Subtotal	\$189	\$0	\$2,229	\$34	\$18	\$163	\$724	\$250	\$133	\$0	\$3,741	
Low Income Energy Efficiency Program	Weatherization	\$0	\$0	\$0	\$1,269	\$3	\$28	\$178	\$16	\$55	\$0	\$1,549	
	LI - Appliances	\$94	\$0	\$0	\$0	\$2	\$19	\$95	\$26	\$9	\$0	\$246	
	LI - Behavioral	\$0	\$0	\$0	\$0	\$3	\$23	\$121	\$7	\$6	\$0	\$159	
	LI - School Education	\$0	\$0	\$131	\$0	\$2	\$15	\$13	\$63	\$8	\$0	\$232	
	LI - EE Kits	\$0	\$0	\$268	\$0	\$1	\$6	\$21	\$17	\$12	\$0	\$325	
	LI - Multifamily - Res	\$0	\$0	\$0	\$479	\$3	\$29	\$155	\$36	\$26	\$0	\$729	
	LI - New Homes	\$10	\$0	\$0	\$0	\$0	\$1	\$4	\$0	\$1	\$0	\$16	
Subtotal	\$104	\$0	\$398	\$1,749	\$13	\$122	\$588	\$165	\$116	\$0	\$3,255		
Residential Total		\$1,280	\$25	\$2,627	\$1,782	\$49	\$457	\$2,107	\$725	\$335	\$0	\$9,388	
C&I Energy Solutions for Business Program - Small ²	Multi Family - SCI	\$0	\$0	\$0	\$382	\$5	\$50	\$262	\$46	\$28	\$0	\$772	
	Prescriptive - SCI	\$1,098	\$232	\$0	\$0	\$8	\$75	\$430	\$39	\$70	\$0	\$1,951	
	Prescriptive Other - SCI	\$49	\$0	\$0	\$0	\$1	\$7	\$33	\$10	\$4	\$0	\$102	
	Custom - SCI	\$792	\$0	\$0	\$0	\$8	\$73	\$396	\$59	\$49	\$0	\$1,378	
	Energy Management - SCI	\$138	\$0	\$0	\$2,730	\$14	\$125	\$724	\$56	\$140	\$0	\$3,927	
	Subtotal	\$2,077	\$232	\$0	\$3,112	\$36	\$330	\$1,844	\$209	\$290	\$0	\$8,130	
Small Commercial & Industrial Total		\$2,077	\$232	\$0	\$3,112	\$36	\$330	\$1,844	\$209	\$290	\$0	\$8,130	
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$2	
	Prescriptive - LCI	\$996	\$564	\$0	\$0	\$9	\$79	\$458	\$35	\$79	\$0	\$2,221	
	Prescriptive Other - LCI	\$40	\$0	\$0	\$0	\$0	\$2	\$7	\$2	\$2	\$0	\$53	
	Custom - LCI	\$1,236	\$0	\$0	\$0	\$14	\$132	\$748	\$73	\$82	\$0	\$2,285	
	Energy Management - LCI	\$159	\$0	\$0	\$494	\$6	\$59	\$340	\$26	\$40	\$0	\$1,124	
	Subtotal	\$2,431	\$564	\$0	\$496	\$29	\$272	\$1,554	\$136	\$203	\$0	\$5,685	
Large Commercial & Industrial Total		\$2,431	\$564	\$0	\$496	\$29	\$272	\$1,554	\$136	\$203	\$0	\$5,685	
Non-Residential Total		\$4,507	\$796	\$0	\$3,609	\$65	\$602	\$3,398	\$345	\$493	\$0	\$13,815	
Total		\$5,787	\$821	\$2,627	\$5,391	\$115	\$1,060	\$5,505	\$1,070	\$828	\$0	\$23,204	

¹ External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix C, Table 1-4: Program Cost by Program Year

Penelec Program Year 16

Program	Sub-Program	Incentives (\$000)					Non-Incentives (\$000)					Totals
		Rebates	Upstream/Midstream/Buildout	Kits	Direct Install Materials & Labor	Program Design	Administrative	CSP Delivery Fees	Marketing	EM&V	Other ¹	
Energy Efficient Products Program	Appliance Recycling	\$287	\$0	\$0	\$0	\$12	\$109	\$527	\$151	\$40	\$0	\$1,125
	Appliance Rebate	\$509	\$0	\$0	\$0	\$3	\$26	\$133	\$68	\$27	\$0	\$766
	Consumer Electronics	\$0	\$25	\$0	\$0	\$0	\$2	\$11	\$2	\$1	\$0	\$42
	HVAC	\$191	\$0	\$0	\$0	\$4	\$34	\$125	\$89	\$16	\$0	\$460
	Subtotal	\$986	\$25	\$0	\$0	\$19	\$172	\$795	\$310	\$85	\$0	\$2,393
Energy Efficient Homes Program	Comprehensive Audits	\$100	\$0	\$0	\$0	\$3	\$28	\$127	\$44	\$11	\$0	\$313
	Behavioral	\$0	\$0	\$0	\$0	\$8	\$75	\$390	\$26	\$18	\$0	\$518
	Multi Family - Res	\$0	\$0	\$0	\$34	\$1	\$10	\$54	\$14	\$4	\$0	\$117
	School Education	\$0	\$0	\$154	\$0	\$2	\$17	\$29	\$75	\$10	\$0	\$287
	EE Kits	\$0	\$0	\$2,075	\$0	\$2	\$14	\$35	\$54	\$81	\$0	\$2,260
	New Homes	\$89	\$0	\$0	\$0	\$2	\$20	\$89	\$37	\$9	\$0	\$246
	Subtotal	\$189	\$0	\$2,229	\$34	\$18	\$163	\$724	\$250	\$133	\$0	\$3,741
Low Income Energy Efficiency Program	Weatherization	\$0	\$0	\$0	\$1,269	\$3	\$28	\$178	\$16	\$55	\$0	\$1,549
	LI - Appliances	\$94	\$0	\$0	\$0	\$2	\$19	\$95	\$26	\$9	\$0	\$246
	LI - Behavioral	\$0	\$0	\$0	\$0	\$2	\$21	\$108	\$6	\$5	\$0	\$143
	LI - School Education	\$0	\$0	\$131	\$0	\$2	\$15	\$13	\$63	\$8	\$0	\$232
	LI - EE Kits	\$0	\$0	\$268	\$0	\$1	\$6	\$21	\$17	\$12	\$0	\$325
	LI - Multifamily - Res	\$0	\$0	\$0	\$479	\$3	\$29	\$155	\$36	\$26	\$0	\$729
	LI - New Homes	\$10	\$0	\$0	\$0	\$0	\$1	\$4	\$0	\$1	\$0	\$16
Subtotal	\$104	\$0	\$398	\$1,749	\$13	\$120	\$575	\$164	\$116	\$0	\$3,239	
Residential Total		\$1,280	\$25	\$2,627	\$1,782	\$49	\$455	\$2,094	\$724	\$334	\$0	\$9,372
C&I Energy Solutions for Business Program - Small ²	Multi Family - SCI	\$0	\$0	\$0	\$382	\$5	\$50	\$262	\$46	\$28	\$0	\$773
	Prescriptive - SCI	\$1,098	\$232	\$0	\$0	\$8	\$75	\$430	\$39	\$70	\$0	\$1,951
	Prescriptive Other - SCI	\$49	\$0	\$0	\$0	\$1	\$7	\$33	\$10	\$4	\$0	\$102
	Custom - SCI	\$792	\$0	\$0	\$0	\$8	\$73	\$396	\$59	\$49	\$0	\$1,378
	Energy Management - SCI	\$138	\$0	\$0	\$2,730	\$14	\$125	\$724	\$56	\$140	\$0	\$3,927
Subtotal	\$2,077	\$232	\$0	\$3,112	\$36	\$330	\$1,844	\$209	\$290	\$0	\$8,131	
Small Commercial & Industrial Total		\$2,077	\$232	\$0	\$3,112	\$36	\$330	\$1,844	\$209	\$290	\$0	\$8,131
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$2
	Prescriptive - LCI	\$996	\$564	\$0	\$0	\$9	\$79	\$458	\$35	\$79	\$0	\$2,221
	Prescriptive Other - LCI	\$40	\$0	\$0	\$0	\$0	\$2	\$7	\$2	\$2	\$0	\$53
	Custom - LCI	\$1,236	\$0	\$0	\$0	\$14	\$132	\$748	\$73	\$82	\$0	\$2,285
	Energy Management - LCI	\$159	\$0	\$0	\$494	\$6	\$59	\$340	\$26	\$40	\$0	\$1,124
Subtotal	\$2,431	\$564	\$0	\$496	\$29	\$272	\$1,554	\$137	\$203	\$0	\$5,685	
Large Commercial & Industrial Total		\$2,431	\$564	\$0	\$496	\$29	\$272	\$1,554	\$137	\$203	\$0	\$5,685
Non-Residential Total		\$4,507	\$796	\$0	\$3,609	\$65	\$602	\$3,398	\$346	\$493	\$0	\$13,816
Total		\$5,787	\$821	\$2,627	\$5,391	\$115	\$1,057	\$5,492	\$1,070	\$827	\$0	\$23,188

¹ Includes External Legal & EE Consulting Costs

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix C, Table 1-5: Program Cost by Program Year

Penelec Program Year 17

Program	Sub-Program	Incentives (\$000)					Non-Incentives (\$000)						Totals
		Rebates	Upstream/Midstream/Buildout	Kits	Direct Install Materials & Labor	Program Design	Administrative	CSP Delivery Fees	Marketing	EM&V	Other ¹		
Energy Efficient Products Program	Appliance Recycling	\$287	\$0	\$0	\$0	\$12	\$108	\$527	\$150	\$40	\$0	\$1,124	
	Appliance Rebate	\$509	\$0	\$0	\$0	\$3	\$26	\$194	\$7	\$27	\$0	\$766	
	Consumer Electronics	\$0	\$25	\$0	\$0	\$0	\$2	\$12	\$1	\$1	\$0	\$42	
	HVAC	\$191	\$0	\$0	\$0	\$4	\$34	\$205	\$9	\$16	\$0	\$460	
	Subtotal	\$986	\$25	\$0	\$0	\$19	\$171	\$937	\$168	\$85	\$0	\$2,392	
Energy Efficient Homes Program	Comprehensive Audits	\$100	\$0	\$0	\$0	\$3	\$27	\$164	\$8	\$11	\$0	\$313	
	Behavioral	\$0	\$0	\$0	\$0	\$8	\$74	\$396	\$20	\$18	\$0	\$518	
	Multi Family - Res	\$0	\$0	\$0	\$34	\$1	\$10	\$65	\$3	\$4	\$0	\$116	
	School Education	\$0	\$0	\$154	\$0	\$2	\$17	\$99	\$5	\$10	\$0	\$287	
	EE Kits	\$0	\$0	\$2,075	\$0	\$2	\$14	\$85	\$4	\$81	\$0	\$2,260	
	New Homes	\$89	\$0	\$0	\$0	\$2	\$20	\$120	\$6	\$9	\$0	\$246	
	Subtotal	\$189	\$0	\$2,229	\$34	\$18	\$162	\$929	\$45	\$133	\$0	\$3,740	
Low Income Energy Efficiency Program	Weatherization	\$0	\$0	\$0	\$1,269	\$3	\$28	\$186	\$8	\$55	\$0	\$1,549	
	LI - Appliances	\$94	\$0	\$0	\$0	\$2	\$19	\$116	\$5	\$9	\$0	\$246	
	LI - Behavioral	\$0	\$0	\$0	\$0	\$3	\$23	\$121	\$6	\$6	\$0	\$159	
	LI - School Education	\$0	\$0	\$131	\$0	\$2	\$15	\$72	\$4	\$8	\$0	\$232	
	LI - EE Kits	\$0	\$0	\$268	\$0	\$1	\$6	\$37	\$2	\$12	\$0	\$325	
	LI - Multifamily - Res	\$0	\$0	\$0	\$479	\$3	\$29	\$183	\$8	\$26	\$0	\$728	
	LI - New Homes	\$10	\$0	\$0	\$0	\$0	\$1	\$4	\$0	\$1	\$0	\$16	
Subtotal	\$104	\$0	\$398	\$1,749	\$13	\$121	\$719	\$33	\$116	\$0	\$3,254		
Residential Total		\$1,280	\$25	\$2,627	\$1,782	\$49	\$455	\$2,586	\$246	\$335	\$0	\$9,386	
C&I Energy Solutions for Business Program - Small ²	Multi Family - SCI	\$0	\$0	\$0	\$382	\$5	\$49	\$294	\$14	\$28	\$0	\$772	
	Prescriptive - SCI	\$1,098	\$232	\$0	\$0	\$8	\$75	\$448	\$21	\$70	\$0	\$1,950	
	Prescriptive Other - SCI	\$49	\$0	\$0	\$0	\$1	\$7	\$40	\$2	\$4	\$0	\$102	
	Custom - SCI	\$792	\$0	\$0	\$0	\$8	\$73	\$435	\$20	\$49	\$0	\$1,377	
	Energy Management - SCI	\$138	\$0	\$0	\$2,730	\$14	\$125	\$746	\$34	\$140	\$0	\$3,927	
	Subtotal	\$2,077	\$232	\$0	\$3,112	\$36	\$328	\$1,963	\$90	\$290	\$0	\$8,128	
Small Commercial & Industrial Total		\$2,077	\$232	\$0	\$3,112	\$36	\$328	\$1,963	\$90	\$290	\$0	\$8,128	
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$2	
	Prescriptive - LCI	\$996	\$564	\$0	\$0	\$9	\$79	\$472	\$22	\$79	\$0	\$2,220	
	Prescriptive Other - LCI	\$40	\$0	\$0	\$0	\$0	\$1	\$9	\$0	\$2	\$0	\$53	
	Custom - LCI	\$1,236	\$0	\$0	\$0	\$14	\$131	\$785	\$36	\$81	\$0	\$2,284	
	Energy Management - LCI	\$159	\$0	\$0	\$494	\$6	\$59	\$350	\$16	\$40	\$0	\$1,124	
	Subtotal	\$2,431	\$564	\$0	\$496	\$29	\$270	\$1,616	\$74	\$203	\$0	\$5,683	
Large Commercial & Industrial Total		\$2,431	\$564	\$0	\$496	\$29	\$270	\$1,616	\$74	\$203	\$0	\$5,683	
Non-Residential Total		\$4,507	\$796	\$0	\$3,609	\$65	\$599	\$3,579	\$165	\$493	\$0	\$13,812	
Total		\$5,787	\$821	\$2,627	\$5,391	\$115	\$1,053	\$6,164	\$411	\$828	\$0	\$23,197	

¹ External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix C, Table 2: Program Savings by Program Year

Penelec		PY13		PY14		PY15		PY16		PY17		Total	
Program	Sub-Program	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW
Energy Efficient Products Program	Appliance Recycling	4,189,103	945	4,189,103	945	4,189,103	945	4,189,103	945	4,189,103	945	20,945,514	4,726
	Appliance Rebate	2,635,773	608	2,635,773	608	2,635,773	608	2,635,773	608	2,635,773	608	13,178,866	3,041
	Consumer Electronics	307,761	418	307,761	418	307,761	418	307,761	418	307,761	418	1,538,804	2,089
	HVAC	802,917	91	802,917	91	802,917	91	802,917	91	802,917	91	4,014,585	457
	Subtotal	7,935,554	2,063	7,935,554	2,063	7,935,554	2,063	7,935,554	2,063	7,935,554	2,063	39,677,770	10,313
Energy Efficient Homes Program	Comprehensive Audits	87,739	41	175,477	83	175,477	83	175,477	83	175,477	83	789,647	373
	Behavioral	1,654,100	290	2,759,000	491	2,628,500	468	2,471,900	439	2,271,800	403	11,785,300	2,091
	Multi Family - Res	80,550	19	161,100	37	161,100	37	161,100	37	161,100	37	724,949	168
	School Education	814,973	97	814,973	97	814,973	97	814,973	97	814,973	97	4,074,866	485
	EE Kits	9,950,000	1,174	9,950,000	1,174	9,950,000	1,174	9,950,000	1,174	9,950,000	1,174	49,750,000	5,868
	New Homes	230,328	98	230,328	98	230,328	98	230,328	98	230,328	98	1,151,638	489
	Subtotal	12,817,689	1,718	14,090,878	1,980	13,960,378	1,956	13,803,778	1,928	13,603,678	1,891	68,276,400	9,474
Low Income Energy Efficiency Program	Weatherization	1,446,007	132	1,446,007	132	1,446,007	132	1,446,007	132	1,446,007	132	7,230,034	661
	LI - Appliances	626,157	129	626,157	129	626,157	129	626,157	129	626,157	129	3,130,785	646
	LI - Behavioral	717,640	130	978,640	177	587,140	106	874,240	158	491,440	89	3,649,100	660
	LI - School Education	563,451	76	563,451	76	563,451	76	563,451	76	563,451	76	2,817,255	378
	LI - EE Kits	1,158,300	146	1,158,300	146	1,158,300	146	1,158,300	146	1,158,300	146	5,791,500	732
	LI - Multifamily - Res	623,086	145	623,086	145	623,086	145	623,086	145	623,086	145	3,115,428	723
	LI - New Homes	20,854	6	20,854	6	20,854	6	20,854	6	20,854	6	104,272	32
	Subtotal	5,155,495	764	5,416,495	812	5,024,995	741	5,312,095	793	4,929,295	723	25,838,374	3,833
Residential Total	25,908,738	4,545	27,442,926	4,855	26,920,926	4,759	27,051,426	4,783	26,468,526	4,677	133,792,543	23,620	
C&I Energy Solutions for Business Program - Small ¹	Multi Family - SCI	294,063	42	352,047	51	352,047	51	352,047	51	352,047	51	1,702,252	246
	Prescriptive - SCI	14,100,579	3,431	14,100,579	3,431	14,100,579	3,431	14,100,579	3,431	14,100,579	3,431	70,502,896	17,153
	Prescriptive Other - SCI	343,159	63	343,159	63	343,159	63	343,159	63	343,159	63	1,715,796	317
	Custom - SCI	5,852,574	1,042	5,852,574	1,042	5,852,574	1,042	5,852,574	1,042	5,852,574	1,042	29,262,868	5,208
	Energy Management - SCI	4,801,804	606	9,603,608	1,213	9,603,608	1,213	9,603,608	1,213	9,603,608	1,213	43,216,236	5,458
	Subtotal	25,392,179	5,184	30,251,967	5,800	30,251,967	5,800	30,251,967	5,800	30,251,967	5,800	146,400,048	28,383
Small Commercial & Industrial Total	25,392,179	5,184	30,251,967	5,800	30,251,967	5,800	30,251,967	5,800	30,251,967	5,800	146,400,048	28,383	
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	15,846	4	15,846	4	15,846	4	15,846	4	15,846	4	79,230	19
	Prescriptive - LCI	18,798,506	3,341	18,798,506	3,341	18,798,506	3,341	18,798,506	3,341	18,798,506	3,341	93,992,528	16,705
	Prescriptive Other - LCI	85,750	15	85,750	15	85,750	15	85,750	15	85,750	15	428,752	76
	Custom - LCI	11,568,064	1,853	11,568,064	1,853	11,568,064	1,853	11,568,064	1,853	11,568,064	1,853	57,840,320	9,267
	Energy Management - LCI	2,123,644	502	3,182,291	721	3,182,291	721	3,182,291	721	3,182,291	721	14,852,808	3,384
	Subtotal	32,591,810	5,715	33,650,457	5,934	33,650,457	5,934	33,650,457	5,934	33,650,457	5,934	167,193,638	29,452
Large Commercial & Industrial Total	32,591,810	5,715	33,650,457	5,934	33,650,457	5,934	33,650,457	5,934	33,650,457	5,934	167,193,638	29,452	
Non-Residential Total	57,983,989	10,899	63,902,424	11,734	63,902,424	11,734	63,902,424	11,734	63,902,424	11,734	313,593,685	57,835	
Total	83,892,727	15,444	91,345,351	16,589	90,823,351	16,493	90,953,851	16,517	90,370,951	16,411	447,386,229	81,454	

¹ Includes projected participation of Low Income households living in Multifamily housing.

Appendix C: Table 3, Energy Efficiency as a Resource - Penelec

EE&C Plan Phase	EE Installation Period	EE Plan Potential MW Range	DY 23/24 MW Range	DY 24/25 MW Range	DY 25/26 EE MW Range	DY 26/27 EE MW Range	DY 27/28 MW Range	DY 28/29 EE MW Range	DY 29/30 EE MW Range
IV	21/22	2.8 to 4.2	2.8 to 4.2	2.8 to 4.2	2.8 to 4.2	n/a	n/a	n/a	n/a
	22/23	2.8 to 4.2	2.8 to 4.2	2.8 to 4.2	2.8 to 4.2	2.8 to 4.2	n/a	n/a	n/a
	23/24	2.8 to 4.2	n/a	2.8 to 4.2	2.8 to 4.2	2.8 to 4.2	2.8 to 4.2	n/a	n/a
	24/25	2.8 to 4.2	n/a	n/a	2.8 to 4.2	2.8 to 4.2	2.8 to 4.2	2.8 to 4.2	n/a
	25/26	2.8 to 4.2	n/a	n/a	n/a	2.8 to 4.2	2.8 to 4.2	2.8 to 4.2	2.8 to 4.2
EE MW Ranges		14.0 to 21.0	5.6 to 8.4	8.4 to 12.6	12.0 to 18.0	12.0 to 18.0	8.4 to 12.6	5.6 to 8.4	2.8 to 4.2

¹ The MW values provided in Appendix C, Table C-3 are an estimated range of the EE&C Plan Potential PJM EE MW values for each installation period and do not represent the actual EE values to be offered into PJM's capacity market. These estimates are based on projections used in the development of the EE&C Plan, with adjustment for the addition of line losses, eliminating non-PJM eligible measures, and Company experience with PJM EE evaluations. These estimates are presented for information purposes only and are subject to change for reasons, including but not limited to, changes in program participation, baselines, measurement and verification protocols or costs and PJM rules. The Company will determine the actual EE Resource offers applicable to each PJM auction starting with the 2023/24 BRA scheduled to occur December 2021.

**Appendix D:
Calculation Methods and Assumptions**

Appendix D, Table 1: Costs Assumptions

Cost Assumptions

Program cost elements are categorized into specific costs and common costs. Specific costs include program direct administrative and incentive costs, including: 1) Incentives, Delivery, Marketing provided by CSPs, and Evaluation, Measurement and Verification (EM&V). Specific costs are calculated based on measure, subprogram and or program level estimates, and summed to the subprogram and program level. Common costs include portfolio administrative costs, including: 1) Program Design, 2) Administration, 3) Marketing provided by the utility, and 4) Other. Common costs are estimated at the State level and allocated to the Company based on the Company's savings and targets, and allocated to each program based on the ratio of program specific administrative costs (CSP Delivery and Marketing costs). The following details the assumptions for each cost element used in the budget tables located throughout the plan:

Cost Elements	Description
Incentives	Incentives includes program specific costs for 1) rebates paid to customers, 2) upstream/midstream buydowns, 3) material cost of giveaways (e.g. kits) and 4) program direct install labor and material cost provided to customers. Incentives were calculated based on measure assumptions and participation projections, and summed to the subprogram and program level.
Program Design	Program Design includes common costs associated with the development of the plan and programs including costs incurred by the utility for employee labor software fees for plan development and research and development related association fees. Program Design costs were based on actual costs or Company estimates.
Administration	Administration costs includes common costs incurred by the utility for employee labor and expenses to oversee, administer and manage the portfolio, costs to develop and maintain a data collection, tracking and reporting system, and to perform duties associated with activities such as regulatory reporting or meetings to support the plan (e.g. Stakeholder meetings, Program Evaluation Group meetings). Administration costs were estimated based on actual costs or Company estimates.
Delivery	Delivery costs includes program specific costs for implementation of the programs or subprograms. Program Delivery costs were identified by two components, (1) fixed program/sub-program, and (2) variable unit cost. Includes costs for the management and implementation of programs or subprograms, including staffing, websites, data collection and transfers, call centers, incentive processing, quality assurances and control processes, and other activities supporting successful program implementation. Program Delivery costs were informed by experience for similar programs operated by the Company or Company affiliates in Pennsylvania or other jurisdictions, or by vendor proposals or actual costs. These costs were estimated for each subprogram based on measure participation where applicable, and summed to the program level.
Marketing	Marketing costs includes common costs incurred by the utility and program specific costs incurred by CSPs for marketing the plan, programs and subprograms. Marketing costs were informed by Company estimates of utility and CSP pricing for the plan, program or subprograms. Utility marketing was based on estimated annual costs. CSP marketing costs were identified by two components, (1) fixed program/sub-program and (2) variable unit cost. Includes costs associated with developing and providing marketing/promotional strategies, advertising space and materials.
EM&V	EM&V costs includes program specific costs for EM&V of the program and subprograms. EM&V costs are based on CSP contract pricing. Includes costs for evaluation, measurement and verification activities performed by the Company's independent third-party evaluator. These funds are spent on evaluation, surveys, M&V processes, data transfer responsibilities and participation in evaluation and working group meetings.
Other	Other costs includes other outside services common costs associated with the development and regulatory review process of the plan, including third-party consulting and outside legal fees. Other costs were based on Company estimates.

Appendix D, Table 2: Measure Assumptions¹

Penelec																
Program	Sub-Program	Measure	Measure Life	Verified kWh	Verified kW	NTG	RR kWh	RR kW	Incremental Cost	Modeled Rebate	O&M Benefit (\$/Unit/Yr)	Gas Savings (MMBTU/Yr)	Water Savings (Gal/Yr)	Savings Assumption	Savings Source	Incremental Cost Source
Energy Efficient Products Program	Appliance Recycling	Freezer Recycling	5	691	0.112	0.47	1.00	1.00	\$0	\$58	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Refrigerator Recycling	6	944	0.152	0.47	1.00	1.00	\$0	\$58	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Room Air Conditioner Recycling	4	113	0.324	1.00	1.00	1.00	\$0	\$34	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Dehumidifier Recycling	5	500	0.173	0.47	1.00	1.00	\$0	\$35	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Clothes Washer - Level 1	11	117	0.012	0.50	1.15	1.09	\$187	\$25	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB
		Clothes Washer - Level 2	11	166	0.017	0.50	1.15	1.09	\$187	\$25	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB
		Clothes Washer - Level 3	11	178	0.019	0.50	1.15	1.09	\$187	\$25	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB
		Refrigerator - Level 1	14	46	0.008	0.50	1.15	1.09	\$75	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Refrigerator - Level 2	14	89	0.014	0.50	1.15	1.09	\$75	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Refrigerator - Level 3	14	118	0.018	0.50	1.15	1.09	\$75	\$75	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Freezer	11	36	0.006	0.50	1.15	1.09	\$43	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Clothes Dryer	12	19	0.002	0.50	1.15	1.09	\$358	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Air Purifier / Cleaner	9	785	0.085	0.50	1.15	1.09	\$74	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Room Air Conditioner - Level 1	9	20	0.039	0.50	1.15	1.09	\$65	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Dehumidifier	12	240	0.056	0.50	1.15	1.09	\$11	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
	Appliance Rebate	Water Heater	10	1,453	0.096	0.50	1.15	1.09	\$651	\$500	\$0.00	0.000	0	1-50 gal unit	PA TRM	PA IC DB
		Pool Pump Variable Speed	10	1,620	0.388	0.50	1.15	1.09	\$421	\$300	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Dishwasher	10	26	0.003	0.50	1.15	1.09	\$316	\$25	\$0.00	0.000	210	1 Unit	PA TRM	PA IC DB
		Water Cooler	10	235	0.025	0.50	1.15	1.09	\$49	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		EV Charging Cord - Level 2 - Res	10	36	0.004	0.50	1.15	1.09	\$500	\$50	\$0.00	0.000	0	1 Unit	Energy Star	Co Assumption
		Smart Thermostat - Aphys	11	230	0.000	0.50	1.15	1.09	\$140	\$50	\$0.00	0.000	0	1 Unit controlling 2.5 Ton CAC	PA TRM	PA IC DB
		Residential Occupancy Sensor	10	33	0.000	0.50	1.15	1.09	\$26	\$5	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Ceiling Fan	15	47	0.012	0.50	1.15	1.09	\$15	\$35	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Monitor	4	27	0.004	0.58	1.14	1.14	\$4	\$3	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Computer	4	136	0.018	0.58	1.14	1.14	\$21	\$5	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Imaging	6	41	0.006	0.58	1.14	1.14	\$14	\$5	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		USB Strip Plug Outlet	5	132	0.011	0.58	1.14	1.14	\$41	\$13	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		TV	6	87	0.239	0.58	1.14	1.14	\$3	\$5	\$0.00	0.000	0	1 Unit	MA TRM	MA TRM
		Sound Bar	7	30	0.001	0.58	1.14	1.14	\$5	\$10	\$0.00	0.000	0	1 Unit	MA TRM	MA TRM
		Smart Home	15	5	0.001	0.58	1.14	1.14	\$14	\$5	\$0.00	0.000	0	1 Unit	MA TRM	MA TRM
	HVAC	Heat Pump - Level 2	15	2,848	0.088	0.52	1.10	1.15	\$208	\$200	\$0.00	0.000	0	1-2.75 ton unit	PA TRM	PA IC DB
		Heat Pump - Level 3	15	3,507	0.088	0.52	1.10	1.15	\$1,423	\$500	\$0.00	0.000	0	1-2.75 ton unit	PA TRM	PA IC DB
		Central Air Conditioner - Level 2	15	354	0.198	0.52	1.10	1.15	\$1,059	\$200	\$0.00	0.000	0	1-2.75 Ton Unit	PA TRM	PA IC DB
		Central Air Conditioner - Level 3	15	496	0.198	0.52	1.10	1.15	\$1,059	\$200	\$0.00	0.000	0	1-2.75 Ton Unit	PA TRM	PA IC DB
		Ductless Mini-Split Heat Pump - Level 3	15	637	0.086	0.52	1.10	1.15	\$498	\$200	\$0.00	0.000	0	1-1.5 ton unit	PA TRM	PA IC DB
		PTAC - Level 2 - Multi Family	15	204	0.136	0.52	1.10	1.15	\$454	\$150	\$0.00	0.000	0	1-1.25 Ton Unit	PA TRM	PA IC DB
		PTHP - Level 2 - Multi Family	15	198	0.053	0.52	1.10	1.15	\$363	\$225	\$0.00	0.000	0	1-1.25 Ton Unit	PA TRM	PA IC DB
		Heat Pump - Water & GeoT - ES Tier 3	15	3,401	0.616	0.52	1.10	1.15	\$10,893	\$650	\$0.00	0.000	0	1-3 Ton Unit	PA TRM	PA IC DB
		Furnace Fan (Retrofit or New to ECM)	15	130	0.020	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Smart Thermostat - HVAC	11	220	0.000	0.52	1.10	1.15	\$140	\$75	\$0.00	0.000	0	1 Unit controlling 2.5 Ton CAC	PA TRM	PA IC DB
		HVAC - Custom	3	88	0.014	0.52	1.10	1.15	\$113	\$50	\$0.00	0.000	0	1 - Unit	PA TRM	PA IC DB
		Circulating Pump	15	175	0.000	0.52	1.10	1.15	\$38	\$30	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		HE Bathroom Fans	15	39	0.005	0.52	1.10	1.15	\$44	\$10	\$0.00	0.000	0	1-20 CFM unit	MA TRM	MA TRM
		HVAC Quality Install	15	38	0.005	0.52	1.10	1.15	\$0	\$25	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		Ductless Mini-Split A/C	15	157	0.086	0.52	1.10	1.15	\$498	\$200	\$0.00	0.000	0	1-1.5 ton unit	PA TRM	PA IC DB
Heat Pump (Air-Wtr) w Domestic Hot Water	15	3,507	0.088	0.52	1.10	1.15	\$1,423	\$400	\$0.00	0.000	0	1-2.75 ton unit	PA TRM	PA IC DB		
Comprehensive Audits	Comprehensive Audit	9	877	0.379	1.00	1.00	0.96	\$968	\$500	\$0.00	0.000	0	1 - Audit w DI & Wdtd Retrofits	Actuals	Actuals	
	MF - Tenant - DI - Res	15	225	0.025	1.00	1.00	0.96	\$200	\$140	\$0.00	0.000	0	1 Tenant Space	Actuals	Actuals	
	MF - Tenant - Prescriptive - Res	13	79	0.010	1.00	1.00	0.96	\$207	\$50	\$0.00	0.000	0	1 Avg Appliance	PA TRM	PA IC DB	
	MF - Tenant - Custom - Res	15	275	0.114	1.00	1.00	0.96	\$269	\$125	\$0.00	0.000	0	1.5 Ton Unit	PA TRM	PA IC DB	
	MF - Common - Prescriptive - Res	14	274	0.010	1.00	1.00	0.96	\$82	\$50	\$0.00	0.000	0	1 Avg Light	PA TRM	PA IC DB	
Multi Family - Res	MF - Common - Custom - Res	15	9,822	2.784	1.00	1.00	0.96	\$2,947	\$540	\$0.00	0.000	0	1 Project	Actuals	Actuals	
	MF - Common - DI - Res	15	5,171	0.595	1.00	1.00	0.96	\$1,477	\$1,034	\$0.00	0.000	0	1 Common Space	Actuals	Actuals	
	School Education	15	185	0.020	0.84	1.05	1.01	\$35	\$35	\$0.00	0.000	0	1 Wdtd Ava Kit	PA TRM	Co Assumption	
	EE Kits	12	199	0.021	0.72	1.00	1.00	\$42	\$42	\$0.00	0.000	0	1 Wdtd Ava Kit	PA TRM	Co Assumption	
	On-Line Audit	1	130	0.020	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	EE Consultant	N/A	
Behavioral	Behavioral 2021	1	39	0.007	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A	
	Behavioral 2022	1	49	0.008	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A	
	Behavioral 2023	1	45	0.008	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A	
	Behavioral 2024	1	41	0.007	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A	
	Behavioral 2025	1	36	0.006	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A	
New Homes	NC - Townhouse and duplex units	15	1,678	0.606	0.73	0.85	0.85	\$1,185	\$652	\$0.00	0.696	4,010	NC Townhouse and Duplex	PA TRM	Co Assumption	
	NC - Two-on-Two condominium units	15	1,422	0.484	0.73	0.85	0.85	\$1,004	\$552	\$0.00	0.696	4,010	NC Two on Two Cond Units	PA TRM	Co Assumption	
	NC - Single Family Detached units	15	2,780	1.136	0.73	0.85	0.85	\$1,962	\$1,079	\$0.00	0.696	4,010	NC Single Family Detached	PA TRM	Co Assumption	
	NC - Multi Family Low Rise	15	1,324	0.331	0.73	0.85	0.85	\$934	\$514	\$0.00	0.696	4,010	NC MultiFamily Low Rise	PA TRM	Co Assumption	
	NC - Manufactured Housing	15	1,739	0.366	0.73	0.85	0.85	\$1,228	\$675	\$0.00	0.696	4,010	NC Mfg Housing	PA TRM	Co Assumption	
Weatherization	NC - Multi Family High Rise	15	1,324	0.331	0.73	0.85	0.85	\$934	\$514	\$0.00	0.700	4,010	NC MultiFamily High Rise	PA TRM	Co Assumption	
	Weatherization (WARM PLUS)	12	1,369	0.137	1.00	1.00	1.00	\$1,369	\$1,369	\$0.00	0.000	0	Per HH	Actuals	N/A	
	WARM Extra Measures	12	640	0.045	1.00	1.00	1.00	\$640	\$640	\$0.00	0.000	0	Per HH	Actuals	N/A	
	Freezer Recycling - LI	5	691	0.112	1.00	1.00	1.00	\$0	\$88	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
	Refrigerator Recycling - LI	6	944	0.152	1.00	1.00	1.00	\$0	\$88	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
Low Income Energy Efficiency Program	LI - Appliances	Room Air Conditioner Recycling - LI	4	113	0.324	1.00	1.00	1.00	\$0	\$65	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Dehumidifier Recycling - LI	5	500	0.173	1.00	1.00	1.00	\$0	\$65	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Clothes Washer - Level 1	11	117	0.012	1.00	1.15	1.09	\$187	\$60	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB
		Clothes Washer - Level 2	11	166	0.017	1.00	1.15	1.09	\$187	\$60	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB
		Clothes Washer - Level 3	11	178	0.019	1.00	1.15	1.09	\$187	\$60	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB
	Refrigerator - Level 1	14	46	0.008	1.00	1.15	1.09	\$75	\$60	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
	Refrigerator - Level 2	14	89	0.014	1.00	1.15	1.09	\$75	\$60	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
	Refrigerator - Level 3	14	118	0.018	1.00	1.15	1.09	\$75	\$90	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
	Freezer	11	36	0.006	1.00	1.15	1.09	\$43	\$55	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
	Clothes Dryer	12	19	0.002												

Appendix D, Table 2: Measure Assumptions 1

Penelec																
Program	Sub-Program	Measure	Measure Life	Verified kWh	Verified kW	NTG	RR kWh	RR kW	Incremental Cost	Modeled Rebate	O&M Benefit (\$/Unit/Yr)	Gas Savings (MMBTU/Yr)	Water Savings (Gal/Yr)	Savings Assumption	Savings Source	Incremental Cost Source
Low Income Energy Efficiency Program	LI - Appliances	Room Air Conditioner - Level 1	9	20	0.039	1.00	1.15	1.09	\$65	\$55	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Room Air Conditioner - Level 2	9	20	0.039	1.00	1.15	1.09	\$65	\$60	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Dehumidifier	12	240	0.556	1.00	1.15	1.09	\$11	\$5	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Water Heater	40	1,463	0.596	1.00	1.16	1.09	\$64	\$76	\$0.00	0.000	0	1-60 gal-unit	PA TRM	PA IC DB
		Pool Pump, Variable Speed	10	1,620	0.388	1.00	1.15	1.09	\$421	\$355	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Dishwasher	10	26	0.003	1.00	1.15	1.09	\$316	\$55	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Energy Efficiency Measures - LI	12	225	0.026	1.00	1.00	1.00	\$52	\$52	\$0.00	0.000	0	1 Wildl Avg Kit	PA TRM	Co Assumption
		EV-Charging-Cord - Level 2 - Res	10	26	0.004	1.00	1.16	1.09	\$600	\$60	\$0.00	0.000	0	1 Unit	EnergyStar	Co Assumption
		Smart Thermostat - Aphys	11	230	0.000	1.00	1.15	1.09	\$140	\$80	\$0.00	0.000	0	1 Unit controlling 2.5 Ton CAC	PA TRM	PA IC DB
		School Education - LI	15	211	0.026	1.00	1.00	1.00	\$49	\$49	\$0.00	0.000	0	1 Wildl Avg Kit	PA TRM	Co Assumption
	LI - Behavioral	On-Line Audit - LI	1	130	0.020	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	EE Consultant	N/A
		Behavioral 2021 - LI	1	48	0.008	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A
		Behavioral 2022 - LI	1	76	0.013	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A
		Behavioral 2023 - LI	1	39	0.006	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A
		Behavioral 2024 - LI	1	67	0.011	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A
		Behavioral 2025 - LI	1	31	0.005	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A
		MF - Tenant - DI - Res - LI	12	1,199	0.200	1.00	1.00	1.00	\$975	\$975	\$0.00	0.000	0	1 Tenant Space	Actuals	N/A
		MF - Tenant - Prescriptive - Res - LI	14	79	0.010	1.00	1.00	1.00	\$119	\$119	\$0.00	0.000	0	1 Avg Appliance	Actuals	N/A
		MF - Tenant - Custom - Res - LI	15	275	0.119	1.00	1.00	1.00	\$410	\$410	\$0.00	0.000	0	1.5 Ton Unit	PA TRM	N/A
		MF - Common - Prescriptive - Res - LI	14	274	0.010	1.00	1.00	1.00	\$410	\$410	\$0.00	0.000	0	1 Avg Light	PA TRM	N/A
	MF - Common - Custom - Res - LI	15	9,822	2,900	1.00	1.00	1.00	\$14,733	\$14,733	\$0.00	0.000	0	1 Project	Actuals	N/A	
	MF - Common - DI - Res - LI	12	37,496	4,500	1.00	1.00	1.00	\$56,245	\$56,245	\$0.00	0.000	0	1 Common Space	Actuals	N/A	
	NC - Townhouse and duplex units - LI	15	1,678	0.608	1.00	0.85	0.85	\$1,195	\$790	\$0.00	0.696	4.010	NC Townhouse and Duplex	PA TRM	Co Assumption	
	NC - Two-on-Two condominium units - LI	15	1,422	0.484	1.00	0.85	0.85	\$1,004	\$670	\$0.00	0.696	4.010	NC Two on Two Cond Units	PA TRM	Co Assumption	
	NC - Single-family detached units - LI	15	2,780	1.136	1.00	0.85	0.85	\$1,962	\$1,300	\$0.00	0.696	4.010	NC Single Family Detached	PA TRM	Co Assumption	
	NC - Multi Family Low Rise - LI	15	1,324	0.331	1.00	0.85	0.85	\$934	\$625	\$0.00	0.696	4.010	NC MultiFamily Low Rise	PA TRM	Co Assumption	
	NC - Manufactured Housing - LI	15	1,739	0.668	1.00	0.85	0.85	\$1,129	\$615	\$0.00	0.696	4.010	NC Mfg Housing	PA TRM	Co Assumption	
	NC - Multi Family High Rise - LI	15	1,324	0.331	1.00	0.85	0.85	\$934	\$625	\$0.00	0.700	4.010	NC MultiFamily High Rise	PA TRM	Co Assumption	
	MF - Tenant - DI - SCI - LI	12	650	0.108	1.00	1.00	1.00	\$975	\$975	\$0.00	0.000	0	1 Tenant Space	Actuals	N/A	
	MF - Tenant - Prescriptive - SCI - LI	14	79	0.010	1.00	1.00	1.00	\$119	\$119	\$0.00	0.000	0	1 Avg Appliance	Actuals	N/A	
	MF - Tenant - Custom - SCI - LI	15	275	0.119	1.00	1.00	1.00	\$269	\$269	\$0.00	0.000	0	1.5 Ton Unit	PA TRM	N/A	
	MF - Common - Prescriptive - SCI - LI	14	274	0.010	1.00	1.00	1.00	\$82	\$82	\$0.00	0.000	0	1 Avg Light	PA TRM	N/A	
	MF - Common - Custom - SCI - LI	15	9,822	2,900	1.00	1.00	1.00	\$14,733	\$14,733	\$0.00	0.000	0	1 Project	Actuals	N/A	
	MF - Common - DI - SCI - LI	12	37,496	4,500	1.00	1.00	1.00	\$56,245	\$56,245	\$0.00	0.000	0	1 Common Space	Actuals	N/A	
	MF - Tenant - DI - SCI	15	225	0.025	1.00	1.00	0.96	\$200	\$140	\$0.00	0.000	0	1 Tenant Space	Actuals	Actuals	
MF - Tenant - Prescriptive - SCI	13	79	0.010	1.00	1.00	0.96	\$207	\$50	\$0.00	0.000	0	1 Avg Appliance	PA TRM	PA IC DB		
MF - Tenant - Custom - SCI	15	275	0.114	1.00	1.00	0.96	\$269	\$125	\$0.00	0.000	0	1.5 Ton Unit	PA TRM	PA IC DB		
MF - Common - Prescriptive - SCI	14	274	0.010	1.00	1.00	0.96	\$82	\$50	\$0.00	0.000	0	1 Avg Light	PA TRM	PA IC DB		
MF - Common - Custom - SCI	15	9,822	2,784	1.00	1.00	0.96	\$2,947	\$540	\$0.00	0.000	0	1 Project	Actuals	Actuals		
MF - Common - DI - SCI	15	5,171	0.595	1.00	1.00	0.96	\$1,477	\$1,034	\$0.00	0.000	0	1 Common Space	Actuals	Actuals		
Air Conditioning - Level 1 <=4 Tn - SCI	15	778	0.392	0.51	1.00	0.90	\$1,358	\$195	\$0.00	0.000	0	1-5 ton unit	PA TRM	PA IC DB		
Air Conditioning - Level 1 >=4 < 20 Tn - SCI	15	729	0.422	0.51	1.00	0.90	\$1,014	\$185	\$0.00	0.000	0	1-11 ton unit	PA TRM	PA IC DB		
Air Conditioning - Level 1 >=20 Tn - SCI	15	1,886	0.825	0.51	1.00	0.90	\$99	\$475	\$0.00	0.000	0	1-20 ton unit	PA TRM	PA IC DB		
Heat Pump - Level 1 <=5.4 Tn - SCI	15	985	0.242	0.51	1.00	0.90	\$1,358	\$250	\$0.00	0.000	0	1-5 ton unit	PA TRM	PA IC DB		
Heat Pump - Water & GeoT - ES Tier 3 - SCI	15	2,295	0.032	0.51	1.00	0.90	\$8,802	\$575	\$0.00	0.000	0	1-5 ton unit	PA TRM	PA IC DB		
Ductless Mini-Split HP - Level 3 - SCI	15	742	0.060	0.51	1.00	0.90	\$514	\$185	\$0.00	0.000	0	1-1.5 ton unit	PA TRM	PA IC DB		
PTAC - SCI	15	94	0.041	0.51	1.00	0.90	\$363	\$25	\$0.00	0.000	0	1-1 ton unit	PA TRM	PA IC DB		
PTHP - SCI	15	180	0.041	0.51	1.00	0.90	\$363	\$50	\$0.00	0.000	0	1-1 ton unit	PA TRM	PA IC DB		
Room Air Conditioner - SCI	9	75	0.107	0.51	1.00	0.90	\$0	\$20	\$0.00	0.000	0	1-1 ton unit	PA TRM	PA IC DB		
Smart Thermostat - Rebate - SCI	8	183	0.000	0.51	1.00	0.90	\$204	\$50	\$0.00	0.000	0	1-5 Ton Unit	MA TRM	MA TRM		
HVAC - Custom - SCI	15	36,691	5,205	0.51	1.00	0.90	\$11,007	\$9,175	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption		
Circulating Pump (Mid Strm) - SCI	15	159	0.000	0.51	1.00	0.90	\$38	\$40	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB		
HVAC - Maintenance - SCI	10	360	0.106	0.51	1.00	0.90	\$175	\$90	\$0.00	0.000	0	1-5 Ton Unit	PA TRM	Co Assumption		
Furnace Fan (Retrofit or New to ECM) - SCI	15	122	0.038	0.51	1.00	0.90	\$242	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
Lighting Control (Daylight & Occupancy) - SCI	8	427	0.104	0.70	0.98	0.96	\$80	\$35	\$0.00	0.000	0	1 unit controller	PA TRM	PA IC DB		
Linear Fluorescent - SCI	10	119	0.016	0.70	0.98	0.96	\$6	\$10	\$0.00	0.000	0	1-3 lamp fixture	PA TRM	MA TRM		
LED Linear - SCI	15	133	0.018	0.70	0.98	0.96	\$31	\$11	\$0.00	0.000	0	1-4 lamp trougher	PA TRM	PA IC DB		
LED Channel Signage - SCI	15	369	0.026	0.70	0.98	0.96	\$35	\$30	\$0.46	0.000	0	Per LF of Letter	PA TRM	Co Assumption		
Exit Sign - SCI	15	163	0.018	0.70	0.98	0.96	\$18	\$13	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
LED Fixture External - SCI	15	561	0.000	0.70	0.98	0.96	\$203	\$45	\$2.06	0.000	0	1 Unit	PA TRM	PA IC DB		
LED Fixture Internal - SCI	15	133	0.021	0.70	0.98	0.96	\$40	\$11	\$2.61	0.000	0	1 Unit	PA TRM	PA IC DB		
LED Lamp - SCI	14	25	0.004	0.70	0.98	0.96	\$5	\$2	\$0.50	0.000	0	1 Unit	PA TRM	PA IC DB		
Lighting - Other - SCI	15	21,560	4,224	0.70	0.98	0.96	\$6,600	\$1,760	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption		
Street & Area Lighting (Customer Owned) - SCI	12	592	0.000	0.70	0.98	0.96	\$173	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
LED Reach in Refrig / Freezer Light - SCI	8	602	0.090	0.70	0.98	0.96	\$59	\$50	\$1.73	0.000	0	1 Door	PA TRM	PA IC DB		
Lighting - Custom - SCI	15	21,560	4,224	0.70	0.98	0.96	\$6,600	\$1,760	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption		
Network Lighting Control - SCI	8	2	0.000	0.70	0.98	0.96	\$1	\$0	\$0.00	0.000	0	Per sq-ft of building lighting controlled	PA TRM	PA IC DB		
Linear Lamp - MS - SCI	15	26	0.006	0.70	1.00	1.00	\$7	\$2	\$0.46	0.000	0	1- Unit	PA TRM	PA IC DB		
High/Low Bay Lamp - MS - SCI	12	993	0.163	0.70	1.00	1.00	\$162	\$80	\$2.57	0.000	0	1- Unit	PA TRM	PA IC DB		
LED Fixture - MS - SCI	15	88	0.022	0.70	1.00	1.00	\$72	\$7	\$0.92	0.000	0	1- Unit	PA TRM	PA IC DB		
ECM Evap Fan Motor - SCI	15	1,575	0.162	0.51	1.00	0.90	\$227	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
Evap Fan Controls - SCI	10	1,278	0.131	0.51	1.00	0.90	\$532	\$100	\$0.00	0.000	0	1 Unit	PA TRM	MA TRM		
Refrigerator - Reach In - SCI	12	453	0.047	0.51	1.00	0.90	\$729	\$65	\$0.00	0.000	0	1-30CF Unit	PA TRM	MA TRM		
Freezer - Reach In - SCI	12	850	0.087	0.51	1.00	0.90	\$977	\$65	\$0.00	0.000	0	1-30CF Unit	PA TRM	PA IC DB		
Refrigerated Case Cover - SCI	5	44	0.000	0.51	1.00	0.90	\$38	\$10	\$0.00	0.000	0	Per LF of Case	PA TRM	PA IC DB		
Anti Sweat Heater Controls - SCI	12	706	0.071	0.51	1.00	0.90	\$418	\$30	\$0.00	0.000	0	1-unit	PA TRM	MA TRM		

Appendix D, Table 2: Measure Assumptions 1

Penelec																
Program	Sub-Program	Measure	Measure Life	Verified kWh	Verified kW	NTG	RR kWh	RR kW	Incremental Cost	Modeled Rebate	O&M Benefit (\$/Unit/Yr)	Gas Savings (MMBTU/Yr)	Water Savings (Gal/Yr)	Savings Assumption	Savings Source	Incremental Cost Source
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Strip Curtain - SCI	4	177	0.020	0.51	1.00	0.90	\$10	\$2	\$0.00	0.000	0	Per SF	PA TRM	PA IC DB
		Ice Machine - SCI	8	479	0.081	0.51	1.00	0.90	\$378	\$50	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB
		Beverage Vending Machine - Controls - SCI	5	1,410	0.000	0.51	1.00	0.90	\$180	\$30	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		Beverage Vending Machine - Energy Star - SCI	5	1,410	0.000	0.51	1.00	0.90	\$180	\$50	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		Steam Cooker - SCI	12	14,105	2.628	0.51	1.00	0.90	\$351	\$250	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		Fryer - SCI	12	2,456	0.401	0.51	1.00	0.90	\$1,038	\$200	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB
		Griddle - SCI	12	2,596	0.480	0.51	1.00	0.90	\$950	\$200	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB
		Hot Food Holding Cabinet - SCI	12	1,720	0.256	0.51	1.00	0.90	\$421	\$250	\$0.00	0.000	0	1-15 CU, FT. unit	PA TRM	PA IC DB
		Combination Oven - SCI	12	18,134	3.354	0.51	1.00	0.90	\$2,512	\$600	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		Convection Oven - SCI	12	1,937	0.358	0.51	1.00	0.90	\$539	\$400	\$0.00	0.000	0	1-full size unit	PA TRM	PA IC DB
		Dishwasher - SCI	10	3,014	0.372	0.51	1.00	0.90	\$882	\$200	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		Induction Warmer/Rethernalizer Well - SCI	15	400	0.041	0.51	1.00	0.90	\$500	\$200	\$0.00	0.000	0	1-Two well unit	Co Assumption	Co Assumption
		Coffee Brewer - SCI	15	1,331	0.137	0.51	1.00	0.90	\$200	\$100	\$0.00	0.000	0	1-large batch Type II Unit	Energy Star	Co Assumption
		Pre-Rinse Sprayer - SCI	8	478	0.074	0.51	1.00	0.90	\$6	\$35	\$0.00	0.000	0	1-unit	PA TRM	Co Assumption
		Agricultural Process Lighting	15	2,216	0.189	0.50	1.00	0.85	\$950	\$222	\$2.31	0.000	0	1 Unit	PA TRM	Co Assumption
		Auto Milker Takeoff	10	434	0.063	0.50	1.00	0.85	\$200	\$90	\$0.00	0.000	0	Per Unit	PA TRM	Co Assumption
		Dairy Scroll Compressor	15	974	0.141	0.50	1.00	0.85	\$1,000	\$500	\$0.00	0.000	0	Per Unit	PA TRM	Co Assumption
		HE Ventilator Fans	15	974	0.163	0.50	1.00	0.85	\$250	\$100	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		Heat Reclaimer	15	7,860	1.136	0.50	1.00	0.85	\$4,300	\$1,000	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		High Volume Low Speed Fan	15	9,963	3.829	0.50	1.00	0.85	\$816	\$600	\$0.00	0.000	0	1 Unit	PA TRM	WI TRM
		Livestock Waterer	10	521	0.000	0.50	1.00	0.85	\$510	\$100	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		Dairy Vac Pump VSD Control	15	19,394	3.528	0.50	1.00	0.85	\$3,400	\$1,000	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		Low Pressure Irrigation	5	3,379	7.465	0.50	1.00	0.85	\$2,095	\$250	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		Custom - Agricultural	15	9,842	0.955	0.50	1.00	0.85	\$2,953	\$1,000	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		Dairy Refrigeration Tune-Up	1	262	0.028	0.50	1.00	0.85	\$194	\$50	\$0.00	0.000	0	1 Refrigerator Cooler	WI TRM	WI TRM
		Engine Block Heater Timer	15	738	0.000	0.50	1.00	0.85	\$25	\$10	\$0.00	0.000	0	1 Unit	PA TRM	WI TRM
		Street Lighting (Tariff / Utility Owned)(EMU)	12	604	0.000	1.00	1.00	0.98	\$173	\$40	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Street Lighting (Tariff / Customer Owned)(MU)	12	604	0.000	1.00	1.00	0.98	\$173	\$40	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Refrigerator Recycling - SCI	6	964	0.132	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Freezer Recycling - SCI	5	670	0.082	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Room Air Conditioner Recycling - SCI	4	113	0.213	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Dehumidifiers Recycling - SCI	5	467	0.147	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		IC Chasing Cord - Level 2 - SCI	10	31	0.003	0.50	1.00	0.85	\$500	\$50	\$0.00	0.000	0	1 Unit	Energy Star	Co Assumption
		Clothes Washer Level 1&2 - SCI	11	144	0.014	0.50	1.00	0.85	\$187	\$25	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB
		Clothes Washer Level 3 - SCI	11	155	0.015	0.50	1.00	0.85	\$187	\$25	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB
		Clothes Dryer - SCI	12	16	0.002	0.50	1.00	0.85	\$358	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Refrigerator Level 1&2 - SCI	14	77	0.011	0.50	1.00	0.85	\$75	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Refrigerator Level 3 - SCI	14	103	0.014	0.50	1.00	0.85	\$75	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Water Heater - Heat Pump - SCI	10	776	0.154	0.50	1.00	0.85	\$651	\$500	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		Freezer - SCI	11	32	0.004	0.50	1.00	0.85	\$43	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Dehumidifier - SCI	12	209	0.044	0.50	1.00	0.85	\$11	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Water Cooler - SCI	10	204	0.019	0.50	1.00	0.85	\$49	\$25	\$0.00	0.000	0	1 unit	PA TRM	Co Assumption
		Monitor - SCI	4	24	0.003	0.51	1.00	0.85	\$2	\$5	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Computer - SCI	4	119	0.014	0.51	1.00	0.85	\$19	\$5	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Uninterruptible Power Supply (UPS) - SCI	10	1,020	0.099	0.51	1.00	0.85	\$295	\$102	\$0.00	0.000	0	1 - 5kVA unit	CMUA TRM	CMUA TRM
		Imaging - SCI	6	235	0.027	0.51	1.00	0.85	\$11	\$10	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Small Network - SCI	5	237	0.027	0.51	1.00	0.85	\$30	\$15	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Advanced Pair Strip - SCI	5	85	0.000	0.51	1.00	0.85	\$34	\$10	\$0.00	0.000	0	1-Advanced Power Strip	PA TRM	Co Assumption
		Custom - Process Improvement - SCI	15	26,786	2.865	0.80	1.00	0.90	\$8,036	\$2,679	\$0.00	0.000	0	1 Project	Actuals	Actuals
		Custom - Compressed Air - SCI	13	98,101	11.950	0.80	1.00	0.90	\$29,430	\$9,810	\$0.00	0.000	0	1 Project	Actuals	Actuals
		Custom - Motors - Three Phase - SCI	15	22,307	2.229	0.80	1.00	0.90	\$13,384	\$2,231	\$0.00	0.000	0	1 Project	Actuals	Actuals
		Custom - Refrigeration - SCI	15	95,446	6.948	0.80	1.00	0.90	\$57,268	\$9,545	\$0.00	0.000	0	1 Project	Actuals	Actuals
		Custom - Equipment/Server - SCI	15	36,067	3.595	0.80	1.00	0.90	\$10,820	\$3,607	\$0.00	0.000	0	1 Project	Actuals	Actuals
		Custom - HVAC/Chlr/Cntrlr - SCI	15	36,691	5.205	0.80	1.00	0.90	\$22,015	\$3,670	\$0.00	0.000	0	1 Project	Actuals	Actuals
		Custom - VFDs < 10HP - SCI	15	5,912	0.900	0.80	1.00	0.90	\$1,774	\$600	\$0.00	0.000	0	1 Project	Actuals	Actuals
		Custom - VFDs > 10 HP - SCI	15	33,250	0.900	0.80	1.00	0.90	\$9,975	\$3,325	\$0.00	0.000	0	1 Project	Actuals	Actuals
		Custom - Bldg Improvements - SCI	15	49,110	13.052	0.80	1.00	0.90	\$14,733	\$9,922	\$0.00	0.000	0	1 Project	Actuals	Actuals
		Custom - New Construction - SCI	15	32,010	1.860	0.80	1.00	0.90	\$9,603	\$3,201	\$0.00	0.000	0	1 Project	Actuals	Actuals
		Custom - Audit & Education - SCI	0	0	0.000	0.80	1.00	0.90	\$0	\$5,000	\$0.00	0.000	0	1 Project	N/A	N/A
		Building Tune Up - SCI	15	103,423	12.455	0.84	1.00	1.00	\$45,802	\$34,130	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption
		Virtual/Meter Data Commissioning - SCI	15	32,595	3.721	0.90	1.00	1.00	\$9,778	\$3,259	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption
		Retrocommissioning - SCI	15	95,446	7.720	0.84	1.00	1.00	\$28,634	\$9,545	\$0.00	0.000	0	1 Project	Actuals	Co Assumption
		Building Operations Training - SCI	5	54,478	7.300	0.84	1.00	1.00	\$5,000	\$5,450	\$0.00	0.000	0	1 Unit	Co Assumption	Co Assumption
		Energy Consultation - SCI	0	0	0.000	0.80	1.00	1.00	\$0	\$0	\$0.00	0.000	0	N/A	N/A	N/A
		Audits - SCI	0	0	0.000	0.80	1.00	1.00	\$0	\$5,000	\$0.00	0.000	0	1 Project	N/A	N/A
		MF - Tenant - DI - LCI	15	225	0.025	0.90	1.00	0.96	\$200	\$140	\$0.00	0.000	0	1 Tenant Space	Actuals	Actuals
		MF - Tenant - Prescriptive - LCI	12	79	0.010	0.90	1.00	0.96	\$207	\$50	\$0.00	0.000	0	1 Avg Appliance	PA TRM	PA IC DB
		MF - Tenant - Custom - LCI	15	275	0.114	0.90	1.00	0.96	\$269	\$125	\$0.00	0.000	0	1.5 Ton Unit	PA TRM	PA IC DB
		MF - Common - Prescriptive - LCI	14	274	0.010	0.90	1.00	0.96	\$82	\$50	\$0.00	0.000	0	1 Avg Light	PA TRM	PA IC DB
		MF - Common - Custom - LCI	15	9,822	2.784	0.90	1.00	0.96	\$2,947	\$540	\$0.00	0.000	0	1 Project	Actuals	Actuals
		MF - Common - DI - LCI	15	5,171	0.595	0.90	1.00	0.96	\$1,477	\$1,034	\$0.00	0.000	0	1 Common Space	Actuals	Actuals
		Air Conditioning - Level 1 <=5.4 Tn - LCI	15	778	0.392	0.51	1.00	0.90	\$1,358	\$195	\$0.00	0.000	0	1-5 ton unit	PA TRM	PA IC DB
		Air Conditioning - Level 1 >5.4 <20 Tn - LCI	15	729	0.422	0.51	1.00	0.90	\$1,014	\$185	\$0.00	0.000	0	1-11 ton unit	PA TRM	PA IC DB
		Air Conditioning - Level 1 >=20 Tn - LCI	15	1,886	0.825	0.51	1.00	0.90	\$99	\$475	\$0.00	0.000	0	1-20 ton unit	PA TRM	PA IC DB
		Heat Pump - Level 1 <=5.4 Tn - LCI	15	985	0.242	0.51	1.00	0.90	\$1,358	\$250	\$0.00	0.000	0	1 - 5 ton unit	PA TRM	PA IC DB
		Heat Pump - Water & GeoT - ES Tier 3 - LCI	15	2,295	0.032	0.51	1.00	0.90	\$8,802	\$575	\$0.00	0.000	0	1-5 ton unit	PA TRM	PA IC DB
		Ductless Mini-Split HP - Level 3 - LCI	15	579	0.087	0.51	1.00	0.90	\$498	\$185	\$0.00	0.000	0	1-1.5 ton unit	PA TRM	PA IC DB

Appendix D, Table 2: Measure Assumptions¹

Penelec																	
Program	Sub-Program	Measure	Measure Life	Verified kWh	Verified kW	NTG	RR kWh	RR kW	Incremental Cost	Modeled Rebate	O&M Benefit (\$/Unit/Yr)	Gas Savings (MMBTU/Yr)	Water Savings (Gal/Yr)	Savings Assumption	Savings Source	Incremental Cost Source	
C&I Energy Solutions for Business Program - Large	Prescriptive - LCI	PTAC - LCI	15	94	0.041	0.51	1.00	0.90	\$363	\$25	\$0.00	0.000	0	1 - 1 ton unit	PA TRM	PA IC DB	
		PTHP - LCI	15	180	0.041	0.51	1.00	0.90	\$363	\$50	\$0.00	0.000	0	1 - 1 ton unit	PA TRM	PA IC DB	
		Room Air Conditioner - LCI	9	75	0.107	0.51	1.00	0.90	\$0	\$20	\$0.00	0.000	0	1-1 ton unit	PA TRM	PA IC DB	
		Smart Thermostat - Rebate - LCI	8	183	0.000	0.51	1.00	0.90	\$204	\$50	\$0.00	0.000	0	1-5 Ton Unit	MA TRM	MA TRM	
		HVAC - Custom - LCI	15	219,995	56,993	0.51	1.00	0.90	\$65,998	\$55,000	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption	
		Circulating Pump (Mid Strm) - LCI	15	784	0.000	0.51	1.00	0.90	\$38	\$40	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB	
		HVAC - Maintenance - LCI	10	360	0.106	0.51	1.00	0.90	\$175	\$90	\$0.00	0.000	0	1-5 Ton Unit	PA TRM	Co Assumption	
		Furnace Fan (Retrofit or New to ECM) - LCI	15	122	0.038	0.51	1.00	0.90	\$242	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Lighting Controls (Daylight & Occupancy) - LCI	8	427	0.104	0.70	0.98	0.96	\$90	\$35	\$0.00	0.000	0	1 unit controller	PA TRM	PA IC DB	
		Linear Fluorescent - LCI	10	119	0.016	0.70	0.98	0.96	\$6	\$10	\$0.00	0.000	0	1-3 lamp fixture	PA TRM	MA TRM	
		LED Linear - LCI	15	133	0.018	0.70	0.98	0.96	\$31	\$11	\$0.92	0.000	0	1-4 lamp trougher	PA TRM	PA IC DB	
		LED Channel Signage - LCI	15	369	0.026	0.70	0.98	0.96	\$35	\$30	\$0.46	0.000	0	Per LF of Letter	PA TRM	Co Assumption	
		Exit Sign - LCI	15	163	0.019	0.70	0.98	0.96	\$19	\$13	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		LED Fixture External - LCI	15	561	0.000	0.70	0.98	0.96	\$203	\$45	\$2.06	0.000	0	1 Unit	PA TRM	PA IC DB	
		LED Fixture Internal - LCI	15	133	0.021	0.70	0.98	0.96	\$40	\$11	\$2.61	0.000	0	1 Unit	PA TRM	PA IC DB	
		LED Lamp - LCI	14	25	0.004	0.70	0.98	0.96	\$5	\$2	\$0.50	0.000	0	1 Unit	PA TRM	PA IC DB	
		Lighting - Other - LCI	15	21,560	4,224	0.70	0.98	0.96	\$6,600	\$1,760	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption	
		Street & Area Lighting (Customer Owned) - LCI	12	592	0.000	0.70	0.98	0.96	\$173	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		LED Reach in Refrig / Frzr Light - LCI	8	602	0.090	0.70	0.98	0.96	\$59	\$50	\$1.73	0.000	0	1 Door	PA TRM	PA IC DB	
		Lighting - Custom - LCI	15	21,560	4,224	0.70	0.98	0.96	\$6,600	\$1,760	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption	
		Network Lighting Control - LCI	8	2	0.000	0.70	0.98	0.96	\$1	\$0	\$0.00	0.000	0	Per sq-ft of building lighting controlled	PA TRM	PA IC DB	
		Linear Lamp - MS - LCI	15	26	0.006	0.70	1.00	1.00	\$7	\$2	\$0.46	0.000	0	1-Unit	PA TRM	PA IC DB	
		High/Low Bay Lamp - MS - LCI	12	993	0.163	0.70	1.00	1.00	\$162	\$80	\$2.67	0.000	0	1-Unit	PA TRM	PA IC DB	
		LED Fixture - MS - LCI	15	88	0.022	0.70	1.00	1.00	\$72	\$7	\$0.92	0.000	0	1-Unit	PA TRM	PA IC DB	
		ECM Evap Fan Motor - LCI	15	1,575	0.162	0.51	1.00	0.90	\$227	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Evap Fan Controls - LCI	10	1,278	0.131	0.51	1.00	0.90	\$532	\$100	\$0.00	0.000	0	1 Unit	PA TRM	MA TRM	
		Refrigerator - Reach In - LCI	12	453	0.047	0.51	1.00	0.90	\$729	\$65	\$0.00	0.000	0	1-30CF Unit	PA TRM	MA TRM	
		Freezer - Reach In - LCI	12	850	0.067	0.51	1.00	0.90	\$977	\$65	\$0.00	0.000	0	1-30CF Unit	PA TRM	PA IC DB	
		Refrigerated Case Cover - LCI	5	44	0.000	0.51	1.00	0.90	\$38	\$10	\$0.00	0.000	0	Per LF of Case	PA TRM	PA IC DB	
		Anti Sweat Heater Control - LCI	12	706	0.071	0.51	1.00	0.90	\$418	\$30	\$0.00	0.000	0	1-unit	PA TRM	MA TRM	
		Strip Curtain - LCI	4	177	0.020	0.51	1.00	0.90	\$10	\$2	\$0.00	0.000	0	Per SF	PA TRM	PA IC DB	
		Ice Machine - LCI	8	479	0.081	0.51	1.00	0.90	\$378	\$50	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB	
		Beverage Vending Machine - Controls - LCI	5	1,410	0.000	0.51	1.00	0.90	\$180	\$50	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB	
		Beverage Vending Machine - Energy Star - LCI	5	1,410	0.000	0.51	1.00	0.90	\$180	\$50	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB	
		Steam Cooker - LCI	12	14,105	2,628	0.51	1.00	0.90	\$351	\$250	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB	
		Fryer - LCI	12	2,456	0.401	0.51	1.00	0.90	\$1,038	\$200	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB	
		Griddle - LCI	12	2,596	0.480	0.51	1.00	0.90	\$950	\$200	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB	
		Hot Food Holding Cabinet - LCI	12	1,730	0.256	0.51	1.00	0.90	\$421	\$250	\$0.00	0.000	0	1-15 CU. FT. unit	PA TRM	PA IC DB	
		Combination Oven - LCI	12	18,134	3,354	0.51	1.00	0.90	\$2,512	\$600	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB	
		Convection Oven - LCI	12	1,937	0.358	0.51	1.00	0.90	\$539	\$400	\$0.00	0.000	0	1-full size unit	PA TRM	PA IC DB	
		Dishwasher - LCI	10	3,014	0.372	0.51	1.00	0.90	\$882	\$200	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB	
		Induction Warmer/Rethernalizer Well - LCI	15	400	0.041	0.51	1.00	0.90	\$500	\$200	\$0.00	0.000	0	1-Two well unit	Co Assumption	Co Assumption	
		Coffee Brewer - LCI	15	1,331	0.137	0.51	1.00	0.90	\$200	\$100	\$0.00	0.000	0	1-large batch Type II Unit	Energy Star	Co Assumption	
		Pre-Rinse Sprayer - LCI	8	478	0.074	0.51	1.00	0.90	\$6	\$60	\$0.00	0.000	0	1-unit	PA TRM	Co Assumption	
		Refrigerator Recycling - LCI	6	964	0.132	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Freezer Recycling - LCI	5	670	0.092	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Room Air Conditioner Recycling - LCI	4	113	0.213	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Dehumidifiers Recycling - LCI	5	467	0.147	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		EV Charging Cord - Level 2 - LCI	10	31	0.003	0.50	1.00	0.85	\$500	\$25	\$0.00	0.000	0	1 Unit	Energy Star	Co Assumption	
		Clothes Washer Level 1&2 - LCI	11	144	0.014	0.50	1.00	0.85	\$187	\$25	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB	
	Clothes Washer Level 3 - LCI	11	155	0.015	0.50	1.00	0.85	\$187	\$50	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB		
	Clothes Dryer - LCI	12	16	0.002	0.50	1.00	0.85	\$358	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
	Refrigerator Level 1& 2 - LCI	14	77	0.011	0.50	1.00	0.85	\$75	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
	Refrigerator Level 3 - LCI	14	103	0.014	0.50	1.00	0.85	\$75	\$35	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
	Water Heater - Heat Pump - LCI	10	776	0.154	0.50	1.00	0.85	\$651	\$500	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB		
	Freezer - LCI	11	32	0.004	0.50	1.00	0.85	\$43	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
	Dehumidifier - LCI	12	209	0.044	0.50	1.00	0.85	\$11	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
	Water Cooler - LCI	10	204	0.019	0.50	1.00	0.85	\$49	\$25	\$0.00	0.000	0	1 unit	PA TRM	Co Assumption		
	Monitor - LCI	4	24	0.003	0.51	1.00	0.85	\$2	\$5	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB		
	Computer - LCI	4	119	0.014	0.51	1.00	0.85	\$19	\$5	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB		
	Uninterruptible Power Supply (UPS) - LCI	10	1,020	0.099	0.51	1.00	0.85	\$295	\$102	\$0.00	0.000	0	1 - 8kVA Unit	CMUA TRM	CMUA TRM		
	Imaging - LCI	6	235	0.027	0.51	1.00	0.85	\$11	\$10	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
	Small Network - LCI	5	237	0.027	0.51	1.00	0.85	\$30	\$15	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
	Advanced Pwr Strip - LCI	5	85	0.000	0.51	1.00	0.85	\$34	\$10	\$0.00	0.000	0	1- Advanced Power Strip	PA TRM	Co Assumption		
	C&I Energy Solutions for Business Program - Large	Custom - LCI	Custom - Process Improvement - LCI	15	197,108	22,197	0.80	1.00	0.90	\$59,132	\$19,711	\$0.00	0.000	0	1 Project	Actuals	Actuals
			Custom - Compressed Air - LCI	15	269,690	32,152	0.80	1.00	0.90	\$80,907	\$26,969	\$0.00	0.000	0	1 Project	Actuals	Actuals
			Custom - Motors - Three Phase - LCI	15	135,192	16,492	0.80	1.00	0.90	\$81,115	\$13,519	\$0.00	0.000	0	1 Project	Actuals	Actuals
			Custom - Refrigeration - LCI	15	126,914	7,071	0.80	1.00	0.90	\$76,149	\$12,691	\$0.00	0.000	0	1 Project	Actuals	Actuals
			Custom - Equipment/Servers - LCI	15	180,335	17,926	0.80	1.00	0.90	\$54,100	\$18,033	\$0.00	0.000	0	1 Project	Actuals	Actuals
			Custom - HVAC/Chlr/Contrs - LCI	15	219,995	56,993	0.80	1.00	0.90	\$131,997	\$21,999	\$0.00	0.000	0	1 Project	Actuals	Actuals
			Custom - VFDs < 10HP - LCI	15	5,912	0.900	0.80	1.00	0.90	\$1,774	\$600	\$0.00	0.000	0	1 Project	Actuals	Actuals
			Custom - VFDs > 10 HP - LCI	15	33,250	0.900	0.80	1.00	0.90	\$9,776	\$3,250	\$0.00	0.000	0	1 Project	Actuals	Actuals
			Custom - Bldg Improvements - LCI	15	49,110	13,052	0.80	1.00	0.90	\$14,733	\$9,822	\$0.00	0.000	0	1 Project	Actuals	Actuals
			Custom - New Construction - LCI	15	56,438	17,848	0.80	1.00	0.90	\$16,931	\$5,644	\$0.00	0.000	0	1 Project	Actuals	Actuals
		Custom - Audit & Education - LCI	1	0	0.000	0.80	1.00	0.90	\$0	\$10,000	\$0.00	0.000	0	N/A	N/A	N/A	
		Energy Management - LCI	Building Tune Up - LCI	5	398,714	85,714	0.84	1.00	1.00	\$176,573	\$123,601	\$0.00	0.000	0	Co Assumption	Co Assumption	Co Assumption
			Virtual/Meter Data Commissioning - LCI	15	32,595	3,721	0.90	1.00	1.00	\$9,776	\$3,250	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption
			Retroscreening - LCI	15	632,499	131,670	0.84	1.00	1.00	\$199,750	\$33,250	\$0.00	0.000	0	1 Project	Actuals	Co Assumption
			Building Operations Training - LCI	5	54,476	7,300	0.84	1.00	1.00	\$5,000	\$5,450	\$0.00	0.000	0	1 Unit	Co Assumption</	

Appendix D, Table 3: Avoided Cost Outputs

Penelec

PA ACT 129 Program Year	Year	Penelec Zone Summer On-Peak (\$/MWh)	Penelec Zone Summer Off-Peak (\$/MWh)	Penelec Zone Winter On-Peak (\$/MWh)	Penelec Zone Winter Off-Peak (\$/MWh)	Penelec Zone Shoulder On-Peak (\$/MWh)	Penelec Zone Shoulder Off-Peak (\$/MWh)	Generation Capacity (\$/kW/year)	Transmission Capacity (\$/kW/year)	Distribution Capacity (\$/kW/year)	Avoided Natural Gas Fuel Costs (\$/MMBTU)	
13	2022	\$30.25	\$21.09	\$39.43	\$31.92	\$29.77	\$23.00	\$52.12	\$30.41	\$46.08	\$2.68	Segment 1
14	2023	\$30.05	\$21.51	\$39.21	\$32.56	\$29.60	\$23.46	\$53.16	\$31.02	\$47.00	\$2.62	
15	2024	\$30.65	\$21.94	\$40.00	\$33.21	\$30.19	\$23.93	\$54.23	\$31.64	\$47.94	\$2.67	
16	2025	\$31.26	\$22.38	\$40.80	\$33.87	\$30.79	\$24.41	\$55.31	\$32.27	\$48.90	\$2.75	
17	2026	\$33.50	\$23.64	\$43.20	\$35.33	\$32.77	\$25.58	\$56.42	\$32.92	\$49.88	\$2.94	Segment 2
18	2027	\$35.23	\$24.84	\$46.47	\$37.68	\$34.74	\$26.99	\$57.55	\$33.58	\$50.88	\$3.13	
19	2028	\$37.12	\$26.15	\$50.11	\$40.29	\$36.90	\$28.53	\$58.70	\$34.25	\$51.89	\$3.34	
20	2029	\$38.93	\$27.40	\$53.08	\$42.44	\$38.81	\$29.90	\$59.87	\$34.93	\$52.93	\$3.52	
21	2030	\$40.08	\$28.20	\$55.51	\$44.23	\$40.20	\$30.92	\$61.07	\$35.63	\$53.99	\$3.66	
22	2031	\$41.63	\$29.28	\$58.44	\$46.36	\$41.90	\$32.16	\$62.29	\$36.34	\$55.07	\$3.83	
23	2032	\$43.60	\$30.65	\$62.98	\$49.35	\$44.12	\$33.74	\$63.54	\$37.07	\$56.17	\$4.05	Segment 3
24	2033	\$45.23	\$31.78	\$66.27	\$51.49	\$45.88	\$35.02	\$64.81	\$37.81	\$57.29	\$4.22	
25	2034	\$46.76	\$32.84	\$69.33	\$53.47	\$47.51	\$36.21	\$66.10	\$38.57	\$58.44	\$4.38	
26	2035	\$47.14	\$33.12	\$69.94	\$53.79	\$47.83	\$36.50	\$67.43	\$39.34	\$59.61	\$4.40	
27	2036	\$47.63	\$33.47	\$70.76	\$54.24	\$48.26	\$36.87	\$68.77	\$40.13	\$60.80	\$4.44	
28	2037	\$48.85	\$34.32	\$73.13	\$55.76	\$49.53	\$37.82	\$70.15	\$40.93	\$62.02	\$4.56	
29	2038	\$49.93	\$35.08	\$75.18	\$57.07	\$50.64	\$38.66	\$71.55	\$41.75	\$63.26	\$4.66	
30	2039	\$50.79	\$35.69	\$76.76	\$58.05	\$51.49	\$39.32	\$72.98	\$42.58	\$64.52	\$4.74	
31	2040	\$51.98	\$36.52	\$79.01	\$59.50	\$52.72	\$40.24	\$74.44	\$43.43	\$65.81	\$4.85	
32	2041	\$53.19	\$37.36	\$81.32	\$60.98	\$53.97	\$41.18	\$75.93	\$44.30	\$67.13	\$4.97	

**Appendix A:
CSP Contract(s)**

CSP Contract Summary

Status

Pending approval by PUC Staff

Full company name of contractor and SEP registration Docket Number

ADM Associates, Inc. – Docket A-2010-2175190

Brief description of statement of work

The Evaluation, Measurement, and Verification (EM&V) services being sought are to 1) perform impact and process evaluations, 2) perform verification of data used to generate regulatory reports, 3) support regulatory reporting, including generation and/or verification of tables or other information included in reports, 4) provide consultative and technical support for plan development and/or updates 5) provide evaluation feedback and guidance supporting effective implementation and accurate reporting for Program Managers, including coordinating and communicating results of any impact or other analyses and 6) perform evaluations and provide reports related to the Companies' offering energy efficiency and demand reduction resources in PJM capacity markets. The qualified firm must work with the selected Statewide Evaluator and meet future requirements developed by the Statewide Evaluator and the PUC.

Name of EE&C Plan Program associated with proposed contract and explanation if SOW addresses the Program in its entirety or in part

The proposed contract spans the portfolio of programs included in the Companies' approved Plans.

Estimated total contract cost and statement regarding incentives and rebates, their amount and explanation if total cost includes incentives and rebates

Redacted – Contains pricing information. Included in CSP contract filed with PUC staff.

Estimated targeted energy savings associated with contract

This contract will not produce energy savings, but rather measure and verify the energy savings produced by implementation of the programs in the Plans.

Timeframe and duration of contract from start date to completion

The term of the contract is for the duration of Act 129 Phase IV and is expected to run from contract award until May 31, 2027 to support final evaluation through the end of the Phase, including applicable reports for the final program year (program years are June 1 – May 31).

Statement relating to the number of bids that were received, justification for selection of CSP contractor/subcontractor if based on receipt of less than three bids for any particular program, and identification and explanation for non-selection of low-bid CSP, if applicable.

ADM was the only complete proposal received for providing the requested EM&V services for the duration of PA Act 129 Phase IV. The only other proposal received from the Request for Proposal (RFP), which was issued to all PA certified Conservation Service Providers, was limited to only one of the six EM&V services listed above in the statement of work, specifically the Companies' energy efficiency and

demand reduction resources participation in PJM capacity markets. That other proposal did not address the other five EM&V services identified above. ADM's pricing is competitive in the industry, less than the contracted amount for Phase III and based on time and materials. ADM has done an excellent job performing EM&V services for the FirstEnergy PA EDCs and has billed significantly below the "not to exceed" contract amounts historically. In addition, ADM has established expertise with Company programs, Pennsylvania EM&V procedures, and credibility with the Statewide Independent Evaluator and PUC staff. A new contractor would involve significant start-up costs. For all of these reasons, FirstEnergy requests that the Commission approve the Companies' recommended award of the EM&V contract to ADM.

**Appendix B:
PUC Tables 1-13**

Appendix B, Table 1: Portfolio Summary of Lifetime Costs and Benefits of Energy Efficiency Measures

Penn Power				
Portfolio	Total Discounted Lifetime Costs (\$000)	Total Discounted Lifetime Benefits (\$000)	Total Discounted Net Lifetime Benefits (\$000)	Cost-Benefit Ratio (TRC)
Residential (exclusive of Low Income)	\$14,616	\$17,656	\$3,040	1.2
Residential Low Income	\$4,489	\$2,260	-\$2,229	0.5
Commercial/Industrial Small	\$15,786	\$20,693	\$4,907	1.3
Commercial/Industrial Large	\$13,574	\$20,284	\$6,709	1.5
Total	\$48,466	\$60,893	\$12,427	1.3

Appendix B, Table 2: Summary of Portfolio Energy and Demand Savings

Penn Power

MWh Saved for Consumption Reductions (Meter-Level)	PY13		PY14		PY15		PY16		PY17		Total	
	1st-Year MWh	Lifetime MWh	1st-Year MWh	Lifetime MWh	1st-Year MWh	Lifetime MWh	1st-Year MWh	Lifetime MWh	1st-Year MWh	Lifetime MWh	1st-Year MWh	Lifetime MWh
Baseline	4,772,937		4,772,937		4,772,937		4,772,937		4,772,937		4,772,937	
Residential Sector (exclusive of Low Income) – Cumulative Projected Portfolio Savings	7,699	74,807	15,825	150,630	23,456	225,957	31,443	301,640	38,908	376,802	38,908	376,802
Residential Low Income Sub-Sector – Cumulative Projected Portfolio Savings¹	1,457	11,271	3,141	22,768	4,824	34,265	6,455	45,709	8,026	57,093	8,026	57,093
Commercial/Industrial Small Sector – Cumulative Projected Portfolio Savings	7,415	99,710	15,957	215,782	24,500	331,853	33,042	447,925	41,584	563,997	41,584	563,997
Commercial/Industrial Large Sector – Cumulative Net Weather Adjusted Savings	7,720	101,410	15,926	205,574	24,132	309,739	32,338	413,904	40,544	518,068	40,544	518,068
EE&C Plan Total – Cumulative Projected Savings	24,291	287,197	50,849	594,753	76,912	901,814	103,278	1,209,179	129,062	1,515,961	129,062	1,515,961
EE&C Plan Total – Percentage of Target to be Met	19%		39%		60%		80%		100%		100%	
Estimated Phase III Carryover Savings												39,276
Total Cumulative Projected Savings Phase IV + Estimated Phase III Carryover Savings	24,291	287,197	50,849	594,753	76,912	901,814	103,278	1,209,179	129,062	1,515,961	168,338	1,515,961
EE&C Plan Total – Percentage of Target to be Met	19%		39%		60%		80%		100%		131%	
Percent Reduction from Baseline	0.5%		1.1%		1.6%		2.2%		2.7%		3.5%	
Commission-Identified Goal											128,909	
Percent Savings due to Portfolio Above or Below Commission-Identified Goal											31%	

¹ Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 3: Summary of Portfolio Energy and Demand Savings

Penn Power												
MW Saved for Consumption Reductions (System-Level)	PY13		PY14		PY15		PY16		PY17		Total	
	1st-Year MW	Lifetime MW	1st-Year MW	Lifetime MW	1st-Year MW	Lifetime MW	1st-Year MW	Lifetime MW	1st-Year MW	Lifetime MW	1st-Year MW	Lifetime MW
Baseline	980		980		980		980		980		980	
Residential Sector (exclusive of Low Income) – Cumulative Projected Portfolio Savings	1.6	15.9	3.4	32.1	5.0	48.1	6.7	64.3	8.4	80.3	8.4	80.3
Residential Low Income Sub-Sector – Cumulative Projected Portfolio Savings ¹	0.3	1.9	0.5	3.9	0.8	5.9	1.1	7.9	1.4	9.8	1.4	9.8
Commercial/Industrial Small Sector – Cumulative Projected Portfolio Savings	1.4	18.6	3.0	39.1	4.5	59.7	6.1	80.3	7.7	100.9	7.7	100.9
Commercial/Industrial Large Sector – Cumulative Net Weather Adjusted Savings	1.4	17.7	2.9	35.9	4.4	54.2	5.9	72.4	7.4	90.7	7.4	90.7
EE&C Plan Total – Cumulative Projected Savings	4.7	54.1	9.8	111.1	14.8	167.9	19.8	224.9	24.8	281.7	24.8	281.7
EE&C Plan Total – Percentage of Target to be Met	24%		49%		74%		99%		124%		124%	
Percent Reduction from Baseline	0.5%		1.0%		1.5%		2.0%		2.5%		2.5%	
Commission-Identified Goal											20	
Percent Savings due to Portfolio Above or Below Commission-Identified Goal											24%	

¹Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 4: Summary of Portfolio Costs

Penn Power

Sector	PY13		PY14		PY15		PY16		PY17	
	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%
Residential Portfolio Annual Budget	\$2,125	33%	\$2,105	31%	\$2,119	32%	\$2,104	31%	\$2,119	32%
Residential Low Income Portfolio Annual Budget	\$773	12%	\$747	11%	\$740	11%	\$734	11%	\$728	11%
Commercial/Industrial Small Portfolio Annual Budget	\$1,611	25%	\$1,944	29%	\$1,944	29%	\$1,944	29%	\$1,944	29%
Commercial/Industrial Large Portfolio Annual Budget	\$1,358	21%	\$1,437	21%	\$1,437	21%	\$1,437	21%	\$1,437	21%
Common Costs	\$592	9%	\$481	7%	\$476	7%	\$476	7%	\$475	7%
Total Portfolio Annual Budget	\$6,458	100%	\$6,715	100%	\$6,716	100%	\$6,696	100%	\$6,703	100%

Appendix B, Table 5: Program Summaries

Penn Power

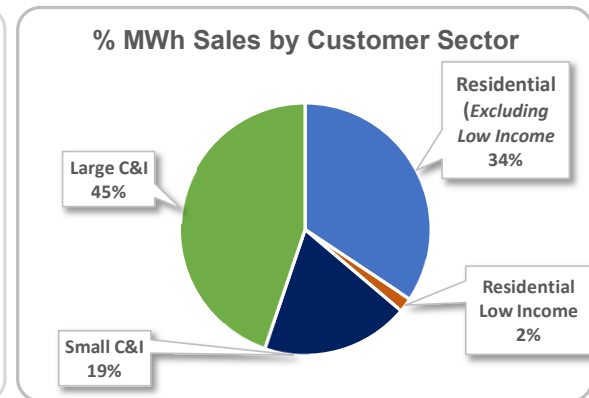
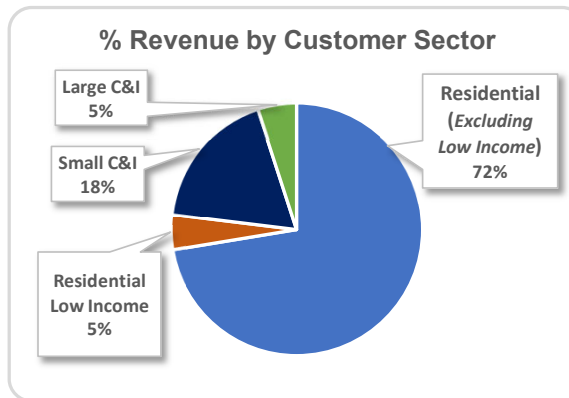
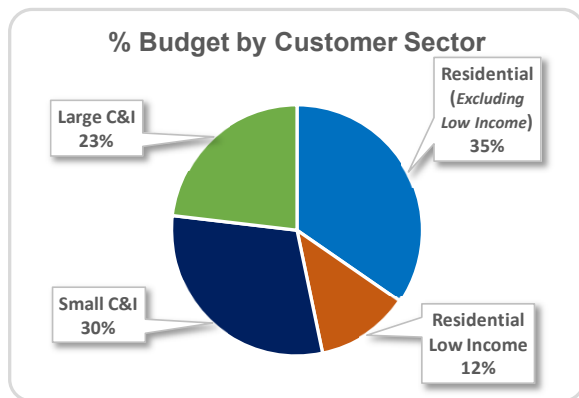
Program Name	Program Market	Program Two-Sentence Summary	Program Years Operated	Lifetime MWh Savings	Lifetime MW Savings	Percentage of Portfolio Resource Savings (MWh% and MW%)		
Residential Portfolio Programs <i>(exclusive of Low Income)</i>	Energy Efficient Products Program	Residential	The program provides financial incentives to residential customers and/or retailers, contractors, distributors or manufacturers to promote customers to purchase and install energy efficient products, such as EnergyStar qualified appliances, consumer electronics, and other energy efficient products. The program will also provide financial incentives to turn in and recycle inefficient appliances, and to promote customers to perform HVAC maintenance or to upgrade HVAC equipment to more efficient technology.	5	103,951	23.7	7%	8%
	Energy Efficient Homes Program	Residential	This program promotes energy efficiency of customer homes through various measures that promote customer energy efficiency education, awareness and adoption of energy efficient behaviors and measures, including customized home energy reports, energy efficiency kits, school education, audits, direct install measures, and financial incentives for implementation of qualified energy efficiency measures in the home. The program also includes financial incentives for the construction of energy efficient new homes.	5	272,852	56.6	18%	20%
	Totals for Residential Sector				376,802	80.3	25%	29%
Residential Low Income Sub-Sector Programs	Low Income Energy Efficiency Program	Residential	This program provides customized energy efficiency education and awareness to promote energy efficient behaviors along with no-cost basic to comprehensive whole house energy efficiency measures, including appliance replacement, to qualified low-income customers. The program also promotes low-income customers to install other energy efficient products, such as EnergyStar qualified appliances, consumer electronics, and other energy efficient products, or to turn in and recycle inefficient appliances, through customer education and outreach, giveaways and enhanced financial incentives.	5	54,746	9.5	4%	3%
	Totals for Low-Income Sector				54,746	9.5	4%	3%
Commercial/Industrial Small Portfolio Programs	C&I Energy Solutions for Business Program - Small	Small C&I ¹	The Energy Solutions for Business Program provides financial incentives to small commercial and industrial customers, including government, institutional and multifamily customers, to purchase and install qualifying energy efficiency equipment, recycle inefficient appliances, upgrade less efficient equipment to more efficient end use technology, retrofit specialized equipment and processes, applications and end uses, complete qualifying high efficiency building shell or system improvements. The Program will also promote behavioral savings, adoption of energy saving technologies and efficient building operations through customer education and outreach, audits with direct install measures, building tune-up, energy management strategies, meter data analysis, or retrocommissioning or building operations training to achieve energy savings.	5	566,344	101.2	37%	37%
	Totals for C&I Small Sector				566,344	101.2	37%	36%
Commercial/Industrial Large Portfolio Programs	C&I Energy Solutions for Business Program - Large	Large C&I	The Energy Solutions for Business Program provides financial incentives to large commercial and industrial customers, including government, institutional and multifamily customers, to purchase and install qualifying energy efficiency equipment, recycle inefficient appliances, upgrade less efficient equipment to more efficient end use technology, retrofit specialized equipment and processes, applications and end uses, complete qualifying high efficiency building shell or system improvements. The Program will also promote behavioral savings, adoption of energy saving technologies and efficient building operations through customer education and outreach, audits with direct install measures, building tune-up, energy management strategies, meter data analysis, or retrocommissioning or building operations training to achieve energy savings.	5	518,068	90.7	34%	32%
	Totals for C&I Large Sector				518,068	90.7	34%	32%
Totals for Plan					1,515,961	281.7	100%	100%

¹ Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 6: Budget and Parity Analysis Summary

Penn Power				
Customer Sector	Phase IV EE&C Budget (inclusive of allocated common cost)	% of Total EDC EE&C Budget	% of EDC Total Annual Revenue	% of EDC Total MWh Sales
Residential Sector <i>(exclusive of Low Income)</i>	\$11,519	35%	72%	34%
Residential Low Income Sub-Sector	\$4,027	12%	5%	2%
Residential Subtotal	\$15,547	47%	77%	36%
Commercial/Industrial Small Sector ¹	\$10,063	30%	18%	19%
Commercial/Industrial Large Sector	\$7,678	23%	5%	45%
Non-Residential Subtotal	\$17,741	53%	23%	64%
EDC TOTAL	\$33,288	100%	100%	100%

¹ Includes projected participation of Low Income households living in Multifamily housing.



Appendix B, Table 7: Eligible Measures
Penn Power

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
Energy Efficient Products Program	Appliance Recycling	Freezer Recycling	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	5	\$75
		Refrigerator Recycling	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	6	\$75
		Room Air Conditioner Recycling	per unit	No	Removal of an existing inefficient room air conditioner from service, prior to its natural end of life (early retirement).	\$0	4	\$50
		Dehumidifier Recycling	per unit	No	Removal of an existing inefficient dehumidifier from service, prior to its natural end of life (early retirement).	\$0	5	\$50
	Appliance Rebate	Clothes Washer - Level 1	per unit	No	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications.	\$187	11	\$50
		Clothes Washer - Level 2	per unit	No	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 2.	\$187	11	\$75
		Clothes Washer - Level 3	per unit	No	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$187	11	\$100
		Refrigerator - Level 1	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications.	\$75	14	\$75
		Refrigerator - Level 2	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 2.	\$75	14	\$100
		Refrigerator - Level 3	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$75	14	\$150
		Freezer	per unit	No	Purchase and installation of a new freezer meeting or exceeding ENERGY STAR specifications.	\$43	11	\$40
		Clothes Dryer	per unit	No	Purchase and installation of a new clothes dryer meeting or exceeding ENERGY STAR specifications with moisture sensor or a heat pump type clothes dryer.	\$358	12	\$75
		Air Purifier / Cleaner	per unit	No	Purchase and installation of a new air purifier/cleaner meeting or exceeding ENERGY STAR specifications.	\$74	9	\$40
		Room Air Conditioner - Level 1	per unit	No	Purchase and installation of a new room air conditioner meeting or exceeding ENERGY STAR specifications and CEE Tier 1.	\$65	9	\$50
		Room Air Conditioner - Level 2	per unit	No	Purchase and installation of a new room air conditioner meeting either ENERGY STAR specifications and CEE Advanced Tier.	\$65	9	\$100
		Dehumidifier	per unit	No	Purchase and installation of a new dehumidifier meeting or exceeding ENERGY STAR specifications.	\$11	12	\$50
		Water Heater	per unit	No	Purchase and installation of a new electric Heat Pump water heater or Solar Water heater meeting or exceeding ENERGY STAR specifications in place of a standard electric water heater.	\$651	10	\$750
		Pool Pump Variable Speed	per unit	No	Purchase and installation of a variable speed swimming pool pump motor to replace a single speed motor.	\$421	10	\$400
		Dishwasher	per unit	No	Purchase and installation of a new dishwasher meeting or exceeding ENERGY STAR specifications.	\$316	10	\$50
		Water Cooler	per unit	No	Purchase and installation of a new water cooler meeting or exceeding ENERGY STAR specifications.	\$49	10	\$25
EV Charging Cord - Level 2 - Res	per unit	No	Purchase and installation of a new EV Charger Cord meeting or exceeding ENERGY STAR specifications.	\$500	10	\$100		
Smart Thermostat - Afnca	per unit	No	New installation or replacement of a manual or conventional programmable thermostat with a ENERGY STAR certified connected thermostat. Existing ducted HVAC system with either an air source heat pump, fossil fuel heating with central AC, or an electric furnace with central AC are eligible. Electric resistance baseboard heating as the primary heating system is not eligible.	\$140	11	\$100		
Residential Occupancy Sensor	per unit	No	Purchase and installation of a wall, fixture, or remote-mounted occupancy sensor for interior or common area applications.	\$26	10	\$25		

Appendix B, Table 7: Eligible Measures
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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
Energy Efficient Products Program	Appliance Rebate	Ceiling Fan	per unit	No	Purchase and installation of a ceiling fan meeting or exceeding ENERGY STAR specifications with integral LED lamps.	\$15	15	\$35
	Consumer Electronics	Monitor	per unit	No	Purchase and installation of a new monitor meeting or exceeding ENERGY STAR specifications.	\$4	4	\$8
		Computer	per unit	No	Purchase and installation of a new computer meeting or exceeding ENERGY STAR specifications.	\$21	4	\$8
		Imaging	per unit	No	Purchase and installation of a new imaging equipment meeting or exceeding ENERGY STAR specifications.	\$14	6	\$8
		Smart Strip Plug Outlet	per unit	No	Purchase and use of a Current-Sensing Master/Controlled Advanced Power Strip (APS) in place of a standard power strip.	\$41	5	\$25
		TV	per unit	No	Purchase and installation of a new television meeting or exceeding ENERGY STAR specifications or 2020 Most Efficient, as applicable.	\$3	6	\$10
		Sound Bar	per unit	No	Purchase and installation of a new sound bar meeting or exceeding ENERGY STAR specifications.	\$5	7	\$20
		Smart Home	per unit	No	Purchase and installation of connected devices that allows for remote user control.	\$14	15	\$25
	HVAC	Heat Pump - Level 2	per unit	No	Purchase and installation of a single package or ducted split HP system central unit prior to end of life or a new system w/ ENERGY STAR qualifying units w/ SEER ratings > or = 16 or 13 EER or 9 HSPF (CEE Tier 2). Includes variable refrigerant flow (VRF) systems.	\$508	15	\$500
		Heat Pump - Level 3	per unit	No	Purchase and installation of a single package or ducted split HP central unit prior to end of life or a new system w/ ENERGY STAR qualifying units w/ SEER ratings > or = 18 or 13.0 EER or 10 HSPF (CEE Tier 3). Includes variable refrigerant flow (VRF) systems.	\$1,423	15	\$1,000
		Central Air Conditioner - Level 2	per unit	No	Purchase and installation of a single package or ducted split central AC unit prior to end of life or a new system w/ Energy Star qualifying units w/ SEER ratings > or = 16 or 13 EER (CEE Tier 2) Includes variable refrigerant flow (VRF) systems.	\$1,059	15	\$400
		Central Air Conditioner - Level 3	per unit	No	Purchase and installation of a single package or ducted split central AC unit prior to end of life or a new system w/ Energy Star qualifying units w/ SEER ratings > or = 18 or 13 EER (CEE Tier 3) Includes variable refrigerant flow (VRF) systems.	\$1,059	15	\$600
		Ductless Mini-Split Heat Pump - Level 3	per unit	No	Purchase and installation of a new or replacement ductless HP ENERGY STAR qualifying unit w/ SEER >= 20, EER >=12.5 or HSPF >= 10.	\$498	15	\$400
		PTAC - Level 2 - Multi Family	per unit	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$454	15	\$225
		PTHHP - Level 2 - Multi Family	per unit	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$363	15	\$225
		Heat Pump - Water & GeoT - ES Tier 3	per unit	No	Installation of Energy Star qualified Ground Source Heat Pump: The following scenarios are eligible: • Water to Air - Closed Loop: 17.1 EER, 3.6 COP; Open Loop: 21.1 EER, 4.1 COP • Water to Water - Closed Loop: 16.1 EER, 3.1 COP; Open Loop: 20.1 EER, 3.5 COP; Direct: 16 EER, 3.6 COP	\$10,893	15	\$1,500
		Furnace Fan (Retrofit or New to ECM)	per unit	No	Purchase and installation of a high efficiency brushless permanent magnet fan motor (BPM) or electrically commutated motor (ECM) to replace a permanent split capacitor (PSC) motor.	\$242	15	\$150
		Smart Thermostat - HVAC	per unit	No	New installation or replacement of a manual or conventional programmable thermostat with a ENERGY STAR certified connected thermostat. Existing ducted HVAC system with either an air source heat pump, fossil fuel heating with central AC, or an electric furnace with central AC are eligible. Electric resistance baseboard heating as the primary heating system is not eligible.	\$140	11	\$100
		HVAC - Custom	per unit	No	Replacement, retrofit or maintenance of existing HVAC equipment or process changes or enhancements that results in electric energy savings.	\$113	3	\$100
		Circulating Pump	per unit	No	Replacement of existing single speed circulation pump or new circulation pump with variable speed motor and/or controls to automatically change pump speed to produce flow rates that match system heating requirements.	\$38	15	\$30
HE Bathroom Fans		per unit	No	Purchase and installation of a new high efficiency bathroom fan that meets or exceeds ENERGY STAR specifications.	\$44	15	\$20	
HVAC Quality Install	per unit	No	Implementation of proper sizing techniques which requires Manual J calculations, following of ENERGY STAR HVAC Quality Installation procedures, or similar calculations.	\$0	15	\$200		

Appendix B, Table 7: Eligible Measures
Penn Power

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
Energy Efficient Products Program	HVAC	Ductless Mini-Split A/C	per unit	No	Purchase and installation of a new or replacement ENERGY STAR qualifying unit w/ SEER >= 20, EER >=12.5.	\$498	15	\$400
		Heat Pump (Air-Wtr) w Domestic Hot Water	per unit	No	Replacement of ducted split central units prior to end of life or a new system w/ ENERGY STAR qualifying units. Includes variable refrigerant flow (VRF) systems. Heating Coefficient of Performance (COPH) shall be >= 1.7 at full load capacity and the following conditions: • Dry bulb air temperature of 5°F • Leaving water temperature of 110°F	\$1,423	15	\$1,000
Energy Efficient Homes Program	Comprehensive Audits	Comprehensive Audit	per Audit w DI & Wgtd Retrofits	No	Provides a Customized Home Energy Report, including diagnostics and testing to any residential customer. Comprehensive measures that are eligible for incentives include, but are not limited to: Windows, Duct Sealing, and Wall & Attic Insulation, etc.	\$968	9	Audit - Up to \$500 for the cost of the audit direct install measures, plus up to \$500 for audit recommended measures and additional incentives.
	Multi Family - Res	MF - Tenant - DI - Res	per tenant space	No	Multi-Family Tenant Space Audit w/ direct install measures.	\$200	15	Up to \$250 for the cost of an audit with direct install measures
		MF - Tenant - Prescriptive - Res	per appliance	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$207	13	Same value as incentives offered through the Residential programs.
		MF - Tenant - Custom - Res	per unit	No	Installation of Custom energy efficiency measures including, but not limited to: lighting, HVAC, appliances, etc.	\$269	15	Same value as incentives offered through the Residential programs.
		MF - Common - Prescriptive - Res	per appliance	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$82	14	Same value as incentives offered through the Commercial & Industrial programs.
		MF - Common - Custom - Res	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$2,947	15	Same value as incentives offered through the Commercial & Industrial programs.
		MF - Common - DI - Res	per common space	No	Multi-Family Common Space Audit w/ direct install measures.	\$1,477	15	Up to 80% of the project cost
	School Education	School Education	per wgtl avg kit	No	Provides energy efficiency education and awareness through students for customers to conserve energy in their homes. In addition to the educational components, this program utilizes low cost direct install items that customers can install by themselves.	\$35	15	NA
	EE Kits	Energy Efficiency Measures	per wgtl avg kit	No	Energy efficiency kits to encourage customers to adopt energy efficient behaviors to conserve and save energy in their homes.	\$42	12	NA
	Behavioral	On-Line Audit	per household	No	Online Audit process including recommendations and education emphasizing key points, general conservation tips and information on tools and resources supporting implementation of measures and efficiency behaviors that reduces consumption of energy and demand.	\$0	1	NA
		Behavioral 2021	per household	No	Reports containing energy usage comparisons, recommendations and education emphasizing key points, general conservation tips and information on tools and resources supporting implementation of measures and efficiencies behaviors that reduces consumption of energy and demand	\$0	1	NA
		Behavioral 2022	per household	No		\$0	1	NA
		Behavioral 2023	per household	No		\$0	1	NA
		Behavioral 2024	per household	No		\$0	1	NA
		Behavioral 2025	per household	No		\$0	1	NA
	New Homes	NC - Townhouse and duplex units	per unit	No		New Townhouse and duplex units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,185	15
		NC - Two-on-Two condominium units	per unit	No	New Two-on-Two condominium units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,004	15	\$1,000
NC - Single-family detached units		per unit	No	New Single-family detached units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,962	15	\$2,500	
NC - Multi Family Low Rise		per unit	No	New Multi Family Low Rise to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$934	15	\$1,000	
NC - Manufactured Housing		per unit	No	Purchase and installation of a Residential manufactured home compliant to and certified by EPA's ENERGY STAR Manufactured Home' program standard.	\$1,228	15	\$2,500	
NC - Multi Family High Rise		per unit	No	New Multi Family High Rise to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$934	15	\$2,500	

Appendix B, Table 7: Eligible Measures
Penn Power

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
Low Income Energy Efficiency Program	Weatherization	Weatherization (WARM PLUS)	per household	Yes	WARM Plus - Comprehensive weatherization services provided to customers that qualify at or below 150% of the Federal Poverty Income Guidelines	\$1,091	12	NA
		WARM Extra Measures	per household	Yes	WARM - Extra Measures - additional energy efficiency measures provided in coordination with the Low Income Usage Reduction program—measures above and beyond what that program provides. For customers who qualify at or below 150% of the Federal Poverty Income Guidelines	\$615	12	NA
	LI - Appliances	Freezer Recycling - LI	per unit	Yes	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	5	\$100
		Refrigerator Recycling - LI	per unit	Yes	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	6	\$100
		Room Air Conditioner Recycling - LI	per unit	Yes	Removal of an existing inefficient room air conditioner from service, prior to its natural end of life (early retirement).	\$0	4	\$75
		Dehumidifier Recycling - LI	per unit	Yes	Removal of an existing inefficient dehumidifier from service, prior to its natural end of life (early retirement).	\$0	5	\$75
		Clothes Washer - Level 1	per unit	Yes	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications.	\$187	11	\$125
		Clothes Washer - Level 2	per unit	Yes	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 2.	\$187	11	\$125
		Clothes Washer - Level 3	per unit	Yes	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$187	11	\$125
		Refrigerator - Level 1	per unit	Yes	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications.	\$75	14	\$180
		Refrigerator - Level 2	per unit	Yes	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 2.	\$75	14	\$180
		Refrigerator - Level 3	per unit	Yes	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$75	14	\$180
		Freezer	per unit	Yes	Purchase and installation of a new freezer meeting or exceeding ENERGY STAR specifications.	\$43	11	\$90
		Clothes Dryer	per unit	Yes	Purchase and installation of a new clothes dryer meeting or exceeding ENERGY STAR specifications with moisture sensor or a heat pump type clothes dryer.	\$358	12	\$125
		Air Purifier / Cleaner	per unit	Yes	Purchase and installation of a new air purifier/cleaner meeting or exceeding ENERGY STAR specifications.	\$74	9	\$60
		Room Air Conditioner - Level 1	per unit	Yes	Purchase and installation of a new room air conditioner meeting or exceeding ENERGY STAR specifications and CEE Tier 1.	\$65	9	\$100
		Room Air Conditioner - Level 2	per unit	Yes	Purchase and installation of a new room air conditioner meeting either ENERGY STAR specifications and CEE Advanced Tier.	\$65	9	\$150
		Dehumidifier	per unit	Yes	Purchase and installation of a new dehumidifier meeting or exceeding ENERGY STAR specifications.	\$11	12	\$75
		Water Heater	per unit.	Yes	Purchase and installation of a new electric Heat Pump water heater or Solar Water heater meeting or exceeding ENERGY STAR specifications in place of a standard electric water heater.	\$651	10	\$1,000
		Pool Pump Variable Speed	per unit.	Yes	Purchase and installation of a variable speed swimming pool pump motor to replace a single speed motor.	\$421	10	\$400
Dishwasher	per unit	Yes	Purchase and installation of a new dishwasher meeting or exceeding ENERGY STAR specifications.	\$316	10	\$75		
Water Cooler	per unit.	Yes	Purchase and installation of a new water cooler meeting or exceeding ENERGY STAR specifications.	\$49	10	\$60		
EV Charging Cord - Level 2 - Res	per unit.	Yes	Purchase and installation of a new EV Charger Cord meeting or exceeding ENERGY STAR specifications.	\$500	10	\$400		

Appendix B, Table 7: Eligible Measures
Penn Power

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}	
Low Income Energy Efficiency Program	LI - Appliances	Smart Thermostat - Appliances	per unit	Yes	New installation or replacement of a manual or conventional programmable thermostat with a ENERGY STAR certified connected thermostat. Existing ducted HVAC system with either an air source heat pump, fossil fuel heating with central AC, or an electric furnace with central AC are eligible. Electric resistance baseboard heating as the primary heating system is not eligible.	\$140	11	\$125	
	LI - School Education	School Education - LI	per wgt avg kit	Yes	Provides energy efficiency education and awareness through students for customers to conserve energy in their homes. In addition to the educational components, this program utilizes low cost direct install items that customers can install by themselves.	\$49	15	NA	
	LI - EE Kits	Energy Efficiency Measures - LI	per wgt avg kit	Yes	Energy efficiency kits to encourage customers to adopt energy efficient behaviors to conserve and save energy in their homes.	\$52	12	NA	
	LI - Behavioral	On-Line Audit - LI		per household	Yes	Online Audit process including recommendations and education emphasizing key points, general conservation tips and information on tools and resources supporting implementation of measures and efficiency behaviors that reduces consumption of energy and demand. Reports containing energy usage comparisons, recommendations and education emphasizing key points, general conservation tips and information on tools and resources supporting implementation of measures and efficiencies behaviors that reduces consumption of energy and demand	\$0	1	NA
		Behavioral 2021 - LI		per household	Yes		\$0	1	NA
		Behavioral 2022 - LI		per household	Yes		\$0	1	NA
		Behavioral 2023 - LI		per household	Yes		\$0	1	NA
		Behavioral 2024 - LI		per household	Yes		\$0	1	NA
		Behavioral 2025 - LI		per household	Yes		\$0	1	NA
	LI - Multifamily - Res	MF - Tenant - DI - Res - LI		per tenant space	Yes	Multi-Family Tenant Space Audit w/ direct install measures.	\$605	12	Direct install measures provided at no cost to low-income customer
		MF - Tenant - Prescriptive - Res - LI		per appliance	Yes	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$119	14	Prescriptive measures provided at no cost to low-income customer
		MF - Tenant - Custom - Res - LI		per unit	Yes	Installation of Custom energy efficiency measures including, but not limited to: lighting, HVAC, appliances, etc.	\$410	15	Custom measures provided at no cost to low-income customer
		MF - Common - Prescriptive - Res - LI		per avg light	Yes	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$410	14	Up to 100% of the project cost
		MF - Common - Custom - Res - LI		per project	Yes	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$14,733	15	Up to 100% of the project cost
		MF - Common - DI - Res - LI		per common space	Yes	Multi-Family Common Space Audit w/ direct install measures.	\$56,245	12	Up to 100% of the project cost
	LI - New Homes	NC - Townhouse and duplex units - LI		per unit	Yes	New Townhouse and duplex units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,185	15	\$1,500
		NC - Two-on-Two condominium units - LI		per unit	Yes	New Two-on-Two condominium units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,004	15	\$1,000
		NC - Single-family detached units - LI		per unit	Yes	New Single-family detached units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,962	15	\$2,500
		NC - Multi Family Low Rise - LI		per unit	Yes	New Multi Family Low Rise to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$934	15	\$1,000
		NC - Manufactured Housing - LI		per unit	Yes	Purchase and installation of a Residential manufactured home compliant to and certified by EPA's ENERGY STAR Manufactured Home' program standard.	\$1,228	15	\$2,500
		NC - Multi Family High Rise - LI		per unit	Yes	New Multi Family High Rise to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$934	15	\$2,500

Appendix B, Table 7: Eligible Measures
Penn Power

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Small	Multi Family - SCI	MF - Tenant - DI - SCI - LI	per tenant space	No	Multi-Family Tenant Space Audit w/ direct install measures.	\$605	12	Direct install measures provided at no cost to low-income customer
		MF - Tenant - Prescriptive - SCI -LI	per Avg Appliance	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$119	14	Prescriptive measures provided at no cost to low-income customer
		MF - Tenant - Custom - SCI -LI	per unit	No	Installation of Custom energy efficiency measures including, but not limited to: lighting, HVAC, appliances, etc.	\$269	15	Custom measures provided at no cost to low-income customer
		MF - Common - Prescriptive - SCI - LI	per avg light	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$82	14	Up to 100% of the project cost
		MF - Common - Custom - SCI - LI	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$14,733	15	Up to 100% of the project cost
		MF - Common - DI - SCI - LI	per common space	No	Multi-Family Common Space Audit w/ direct install measures.	\$56,245	12	Up to 100% of the project cost
		MF - Tenant - DI - SCI	per tenant space	No	Multi-Family Tenant Space Audit w/ direct install measures.	\$200	15	Up to \$250 for the cost of an audit with direct install measures
		MF - Tenant - Prescriptive - SCI	per Avg Appliance	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$207	13	Same value as incentives offered through the Residential programs.
		MF - Tenant - Custom - SCI	per unit	No	Installation of Custom energy efficiency measures including, but not limited to: lighting, HVAC, appliances, etc.	\$269	15	Same value as incentives offered through the Residential programs.
		MF - Common - Prescriptive - SCI	per avg light	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$82	14	Same value as incentives offered through the Commercial & Industrial programs.
		MF - Common - Custom - SCI	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$2,947	15	Same value as incentives offered through the Commercial & Industrial programs.
		MF - Common - DI - SCI	per common space	No	Multi-Family Common Space Audit w/ direct install measures.	\$1,477	15	Up to 80% of the project cost
	Prescriptive - SCI	Air Conditioning - Level 1 <=5.4 Tn - SCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) SEER >= 16 and EER>=13. Includes Variable Refrigerant Flow (VRF) systems	\$1,358	15	\$200
		Air Conditioning - Level 1 >5.4 < 20 Tn - SCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) exceeding applicable standard by 5%. Includes Variable Refrigerant Flow (VRF) systems.	\$1,014	15	\$150
		Air Conditioning - Level 1 >=20 Tn - SCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) exceeding applicable standard by 5%. Includes Variable Refrigerant Flow (VRF) systems.	\$99	15	\$120
		Heat Pump - Level 1 <=5.4 Tn - SCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System HP, HSPF >= 9 (split), HSPF>=8.2 (single package).	\$1,358	15	\$200
		Heat Pump - Water & GeOT - ES Tier 3 - SCI	per ton	No	Purchase and installation of a new or replacement groundwater source, water source or ground source heat pump system that meets or exceeds the energy efficiency requirements of applicable standard 5%. The following retrofit scenarios are considered: • Ground source heat pumps for existing or new non-residential HVAC applications • Groundwater source heat pumps for existing or new non-residential HVAC applications • Water source heat pumps for existing or new non-residential HVAC applications	\$8,802	15	\$300
		Ductless Mini-Split HP - Level 3 - SCI	per ton	No	Purchase and installation of a new ENERGY STAR Ductless Mini Split HP less than 5.4 tons, SEER >=20, EER >=12.5 EER, and HSPF>=10	\$514	15	\$300
		PTAC - SCI	per ton	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$363	15	\$150
		PTHP - SCI	per ton	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$363	15	\$150
Room Air Conditioner- SCI		per ton	No	Purchase and installation of new unit meeting or exceeding the ENERGY STAR standard.	\$0	9	\$150	
Smart Thermostat -Rebate - SCI		per unit	No	Purchase and installation of a smart thermostat that meets ENERGY STAR certification.	\$204	8	\$150	
HVAC - Custom - SCI	per project	No	Purchase and installation of new high-efficiency HVAC equipment in place of standard efficiency equipment. Also includes the purchase and installation of HVAC controls/controllers that optimizes ventilation and economization control schemes of a building's HVAC system based on occupancy or sensor level inputs.	\$11,007	15	\$0.20 per kWh and/or \$550 per kW saved		

Appendix B, Table 7: Eligible Measures
Penn Power

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Circulating Pump (Mid Stm) - SCI	per unit	No	Purchase and installation of a new ECM or BPM circulator pump, r/p single speed motor for space heating in a commercial application.	\$38	15	\$150
		HVAC - Maintenance - SCI	per unit	No	Maintenance services applicable to C&I customers for documented tune-ups of packaged and split systems up to 20 Tons.	\$175	10	\$250
		Furnace Fan (Retrofit or New to ECM) - SCI	per unit	No	Purchase and installation of a high efficiency brushless permanent magnet fan motor (BPM or ECM) to replace a permanent split capacitor (PSC) motor.	\$242	15	\$150
		Lighting Control (Daylight & Occupancy) - SCI	per sensor	No	Purchase and installation of non-networked lighting controls including, but not limited to: daylight On/Off, dimming, occupancy sensors (wall plate, remote & fixture mounted), time clocks and switching controls.	\$80	8	\$50
		Linear Fluorescent - SCI	per fixture	No	Purchase and installation of high performance T8 lamps replacing existing T8 lamps, or higher efficiency than existing or designed.	\$6	10	\$0.20 per kWh and/or \$550 per kW saved
		LED Linear - SCI	per fixture	No	Purchase and installation of linear LED lighting equipment to a higher efficiency than existing or designed. Must meet ENERGY STAR or DLC, as applicable.	\$31	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Channel Signage - SCI	per lin ft	No	Replacement, retrofit or new installation of channel letter signs w/ LED technology. Must meet ENERGY STAR or DLC, as applicable.	\$35	15	\$3
		Exit Sign - SCI	per unit	No	Purchase and installation of LED exit signs to replace incandescent or fluorescent exit signs.	\$18	15	\$23
		LED Fixture External - SCI	per fixture	No	Replacement or new installation of a lighting fixture wired for exclusive use with LED lamps installed in an exterior setting. Must meet ENERGY STAR or DLC, as applicable.	\$203	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Fixture Internal - SCI	per fixture	No	Replacement or new installation of a lighting fixture wired for exclusive use with LED lamps installed in an interior setting. Must meet ENERGY STAR or DLC, as applicable.	\$40	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Lamp - SCI	per unit	No	Purchase and installation of an ENERGY STAR LED lamps, including A-Line and specialty lamps.	\$5	14	\$20
		Lighting - Other - SCI	per project	No	Replacement or new installation of lighting to a higher efficiency than existing or designed lighting equipment. Must meet ENERGY STAR or DLC, as applicable.	\$6,600	15	\$0.20 per kWh and/or \$550 per kW saved
		Street & Area Lighting (Customer Owned) - SCI	per fixture	No	Purchase and installation of new lighting equipment for Street and Area lighting applications to a greater efficiency than existing or designed	\$173	12	\$220
		LED Reach in Refrig / Frizer Light - SCI	per door	No	Purchase and installation of LED luminaires in vertical and horizontal refrigerated display cases replacing linear fluorescent lamp technology. Must meet ENERGY STAR or DLC, as applicable.	\$59	8	\$75
		Lighting - Custom - SCI	per project	No	Replacement or new installation of lighting to a higher efficiency than existing or designed lighting equipment. Specialty lighting applications may be eligible, but will require approval by the Company.	\$6,600	15	\$0.20 per kWh and/or \$550 per kW saved
		Network Lighting Control - SCI	per sq ft of Lighting Controlled	No	Purchase and installation of a networked lighting control system by applying, but not limited to: occupancy sensors, photo sensors, and dimming controls where the system must dim or turn off individual fixtures based on local occupancy and/or light levels. The control system must include luminaire-level lighting control (LLLC) that can switch lights on and off based on occupancy and is capable of full-range dimming based on local light levels.	\$1	8	\$0.60 Per Watt Controlled
		Linear Lamp - MS - SCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$7	15	\$0.20 per kWh and/or \$550 per kW saved
		High/Low Bay Lamp - MS - SCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$162	12	\$0.20 per kWh and/or \$550 per kW saved
		LED Fixture - MS - SCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$72	15	\$0.20 per kWh and/or \$550 per kW saved
		ECM Evap Fan Motor - SCI	per unit	No	Purchase and installation of a ECM motor to replace a permanent split capacitor or shaded pole motor in a commercial refrigeration unit.	\$227	15	\$75
		Evap Fan Controls - SCI	per unit	No	Purchase and installation of ON/OFF controls or multispeed controls for an uncontrolled ECM or permanent split capacitor or shaded pole motor in a commercial refrigeration unit.	\$532	10	\$200
Refrigerator - Reach In - SCI	per unit	No	Purchase and installation of a new high efficiency packaged commercial refrigerator meeting ENERGY STAR.	\$729	12	\$200		
Freezer - Reach In - SCI	per unit	No	Purchase and installation of a new high efficiency packaged commercial freezer meeting ENERGY STAR.	\$977	12	\$200		

Appendix B, Table 7: Eligible Measures
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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Refrigerated Case Cover - SCI	per lin ft	No	Purchase and installation of night covers on existing open type refrigerated display cases.	\$38	5	\$22
		Anti Sweat Heater Controls - SCI	per door	No	Purchase and installation of anti-sweat door heaters on glass refrigerator or freezer doors with either ON/OFF controls or micropulse controls.	\$418	12	\$60
		Strip Curtain - SCI	per sq ft	No	Purchase and installation of strip curtains applied to walk in cooler or freezer doors; curtains must be at least 0.06" thick. Low temp strip curtains must be used on low temp applications.	\$10	4	\$3
		Ice Machine - SCI	per unit	No	Purchase and installation of new ENERGY STAR qualified ice machine.	\$378	8	\$590 - 0-500 lbs \$980 - 501-1000 lbs \$1100 - over 1000 lbs
		Beverage Vending Machine - Controls - SCI	per unit	No	Retrofit controls for a non ENERGY STAR rated vending machine.	\$180	5	\$125
		Beverage Vending Machine - Energy Star - SCI	per unit	No	The purchase and installation of an ENERGY STAR certified beverage vending machine.	\$180	5	\$150
		Steam Cooker - SCI	per unit	No	Purchase and installation of new a ENERGY STAR steam cooker.	\$351	12	\$300 - 3 pan \$400 - 4 pan \$500 - 5 pan \$600 - 6 pan
		Fryer - SCI	per unit	No	Purchase and installation of new a ENERGY STAR fryer.	\$1,038	12	\$500
		Griddle - SCI	per unit	No	Purchase and installation of new a ENERGY STAR griddle.	\$950	12	\$500
		Hot Food Holding Cabinet - SCI	per unit	No	Purchase and installation of new hot food holding cabinet meeting or exceeding ENERGY STAR standards.	\$421	12	\$500 - full size \$375 - 3/4 size \$225 - 1/2 size
		Combination Oven - SCI	per unit	No	Purchase and installation of new Combination Oven meeting or exceeding ENERGY STAR standards.	\$2,512	12	\$1,500
		Convection Oven - SCI	per unit	No	Purchase and installation of new Convection Oven meeting or exceeding ENERGY STAR standards.	\$539	12	\$500
		Dishwasher - SCI	per unit	No	Purchase and installation of ENERGY STAR qualified stationary or conveyor type commercial dishwasher.	\$882	10	\$500
		Induction Warmer/Rethermalizer Well - SCI	per unit	No	Purchase and installation of a energy efficient Rethermalizer & Food Warmers.	\$500	15	\$200
		Coffee Brewer - SCI	per unit	No	Purchase and installation of a new ENERGY STAR Type II small, medium, or large coffee brewer.	\$200	15	\$100
		Pre-Rinse Sprayer - SCI	per unit	No	Purchase and installation of a new sprayer replacing an existing unit that use 1.6 GPM or less, on/off squeeze lever, and cleanliness of performance of at least 26 seconds. Electric water heating only.	\$6	8	\$55
		Agricultural Process Lighting	per unit	No	Purchase and installation of new or replacement of lighting equipment to a higher efficiency than existing or designed for agriculture grow processes.	\$950	15	\$0.20 per kWh and/or \$550 per kW saved
		Auto Milker Takeoff	per unit	No	Purchase and installation of a new automatic milker takeoffs to replace pre-existing manual takeoffs on dairy milking vacuum pump systems.	\$200	10	\$975
		Dairy Scroll Compressor	per unit	No	Purchase and installation of a new or replacement of existing reciprocating compressor with a scroll compressor.	\$1,000	15	\$650
		HE Ventilation Fans	per unit	No	Purchase and installation of a new or replacement of standard efficiency ventilation fans with high efficiency ventilation fans.	\$250	15	\$640
Heat Reclaimer	per unit	No	Purchase and installation of a new heat reclaim units on dairy parlor milk refrigeration systems.	\$4,300	15	\$975		
High Volume Low Speed Fan	per ft of fan blade	No	Purchase and installation of new or replacement of conventional circulating fans with High Volume Low Speed (HVLS) fans. HVLS fans are a minimum of 16 feet long in diameter and move more cubic feet of air per watt than conventional circulating fans.	\$816	15	\$25		
Livestock Waterer	per unit	No	Purchase and installation of an energy efficient livestock waterer that is thermostatically controlled and has a minimum of two inches of factory-installed insulation.	\$510	10	\$350		

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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Dairy Vac Pump VSD Control	per unit	No	Purchase and installation of VFD and controls on dairy vacuum pumps, or the purchase of dairy vacuum pumps with variable speed capability. Pre-existing pumps with VSD's are not eligible for this measure.	\$3,400	15	\$1,500
		Low Pressure Irrigation	per unit	No	Purchase and installation of a low pressure irrigation system.	\$2,095	5	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Agricultural	per unit	No	Replacement or retrofit of existing farm type equipment or process changes or enhancements that results in electric energy savings, including construction of new facilities.	\$2,953	15	\$0.20 per kWh and/or \$550 per kW saved
		Dairy Refrigeration Tune-Up	per unit	No	Tune up of refrigeration systems for agriculture applications.	\$194	1	\$200
		Engine Block Heater Timer	per unit	No	Purchase and installation of a new engine block heater timer.	\$25	15	\$25
		Street Lighting (Tariff / Utility Owned(EMU))	per fixture	No	Replacement or new installation of Street and Area lighting equipment to a greater efficiency than existing or designed	\$173	12	\$220
		Street Lighting (Tariff / Customer Owned(MU))	per fixture	No	Replacement or new installation of Street and Area lighting equipment to a greater efficiency than existing or designed	\$173	12	\$220
	Prescriptive Other - SCI	Refrigerator Recycling - SCI	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	6	\$75
		Freezer Recycling - SCI	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	5	\$75
		Room Air Conditioner Recycling - SCI	per unit	No	Removal of an existing inefficient room air conditioner from service, prior to its natural end of life (early retirement).	\$0	4	\$50
		Dehumidifiers Recycling - SCI	per unit	No	Removal of an existing inefficient dehumidifier from service, prior to its natural end of life (early retirement).	\$0	5	\$50
		EV Charging Cord - Level 2 - SCI	per unit	No	Purchase and installation of an ENERGY STAR rated EV Charger Cord.	\$500	10	\$100
		Clothes Washer Level 1&2 - SCI	per unit	No	Purchase and installation of a clothes washer meeting or exceeding ENERGY STAR, CEE Tier 1, or CEE Tier 2 specifications, as applicable.	\$187	11	\$75
		Clothes Washer Level 3 - SCI	per unit	No	Purchase and installation of a clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$187	11	\$100
		Clothes Dryer - SCI	per unit	No	Purchase and installation of a clothes dryer meeting or exceeding ENERGY STAR specifications with moisture sensor. Heat pump type clothes dryers are eligible.	\$358	12	\$75
		Refrigerator Level 1& 2 - SCI	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR, CEE Tier 1 or CEE TIER 2 specifications, as applicable.	\$75	14	\$100
		Refrigerator Level 3 - SCI	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$75	14	\$150
		Water Heater - Heat Pump - SCI	per unit	No	Purchase and installation of new or replacement of inefficient electric water heater with a heat pump water heater with uniform energy factors meeting or exceeding the ENERGY STAR specifications. Solar water heating is also eligible.	\$651	10	\$750
		Freezer - SCI	per unit	No	Purchase and installation of a freezer meeting or exceeding ENERGY STAR specifications.	\$43	11	\$40
		Dehumidifier - SCI	per unit	No	Purchase and installation of a new dehumidifier meeting or exceeding ENERGY STAR specifications.	\$11	12	\$25
		Water Cooler - SCI	per unit	No	Purchase and installation of a new water cooler meeting or exceeding ENERGY STAR specifications.	\$49	10	\$25
		Monitor - SCI	per unit	No	Purchase and installation of a new monitor meeting or exceeding ENERGY STAR specifications.	\$2	4	\$8
		Computer - SCI	per unit	No	Purchase and installation of a new computer meeting or exceeding ENERGY STAR specifications.	\$19	4	\$8

**Appendix B, Table 7: Eligible Measures
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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Small	Prescriptive Other - SCI	Uninterruptible Power Supply (UPS) - SCI	per kW rating of UPS	No	Purchase and installation of new UPS (less than 12 kW) that exceeds the minimum average efficiency standard as determined by Table 1 of the Energy Star UPS standard. Table 2 of the standard shall be used in calculating the loading of the UPS.	\$295	10	\$220
		Imaging - SCI	per unit	No	Purchase and installation of a new imaging equipment meeting or exceeding ENERGY STAR specifications.	\$11	6	\$8
		Small Network - SCI	per PC controlled	No	Purchase and installation of network level software that controls desktop computers and monitors power settings with the network. Software must be capable of measuring and managing power consumption of each desktop computer and monitor. Laptops are eligible but savings assume workstation includes desktop monitor, laptop computer with laptop screen in use.	\$30	5	\$15
		Advanced Pwr Strip - SCI	per unit	No	Purchase and installation of a new Tier 1 or Tier 2 Advance Power Strip (APS)	\$34	5	\$25
	Custom - SCI	Custom - Process Improvement - SCI	per project	No	Replacement or retrofit of existing equipment or process changes or enhancements that result in the more efficient use of electrical energy.	\$8,036	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Compressed Air - SCI	per project	No	Purchase and installation of new or replacement or retrofit of existing air compressor systems, including but not limited to: new compressors, air dryers, or increased storage capacity. Other efficiency measures such as: leak repair, controls, high efficiency nozzles, piping enhancements, and no loss drains are also eligible.	\$29,430	13	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Motors - Three Phase - SCI	per hp	No	Purchase and installation of a new premium efficiency motor as a direct replacement or for new construction applications	\$13,384	15	\$50
		Custom - Refrigeration - SCI	per project	No	Purchase and installation of a new or retrofit of refrigeration measures on small commercial walk-in refrigeration and coolers, including, but not limited to: high efficiency fan motors, evaporator fan controllers, floating head pressure controls, evaporator coil defrost controls and variable speed compressor motors.	\$57,268	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Equipment/Servers - SCI	per project	No	Purchase and installation new or retrofit of data center measures (servers, UPS, HVAC, etc.) and the optimization of those systems to decrease energy usage.	\$10,820	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - HVAC/Chlr/Cntrls - SCI	per project	No	Purchase and installation of HVAC controls/controllers that optimizes ventilation and economization control schemes of a building's HVAC system based on occupancy or sensor level inputs.	\$22,015	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - VFDs < 10HP - SCI	per hp	No	Purchase and installation of a new VFD for an existing motor (less than or equal to 10 hp) driving fans, pumps and other suitable applications. VFD retrofits are not eligible.	\$1,774	15	\$150
		Custom - VFDs > 10 HP - SCI	per hp	No	Purchase and installation of a new VFD for an existing motor (greater than 10 hp) driving fans, pumps and other suitable applications. VFD retrofits are not eligible.	\$9,975	15	\$100
		Custom - Bldg Improvements - SCI	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to: wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$14,733	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - New Construction - SCI	per project	No	Implementation of design principles to reduce building electric consumption using current ASHRAE 90.1 or IECC baselines, as applicable.	\$9,603	15	\$0.20 per kWh and/or \$550 per kW saved
	Custom - Audit & Education - SCI	per Audit	No	Comprehensive Energy Audit for commercial/industrial facilities or manufacturing processes recommending installation of efficient equipment, building shell/envelop improvements, manufacturing process changes, building operating changes, or other energy efficiency improvements. Audit must meet minimum audit requirements for buildings or for process equipment.	\$0	0	\$0.20 per kWh and/or \$550 per kW saved towards cost of audit	
	Energy Management - SCI	Building Tune Up - SCI	per project	No	Portfolio of measures and services that focus on the adjustment, maintenance and improvement of building systems to achieve maximum operating efficiency, including the installation of energy efficiency measures.	\$45,802	15	Up to 80% of the project cost
		Virtual/Meter Data Commissioning - SCI	per project	No	Assessment of energy usage using meter data and analytics, engineering and building modeling to determine energy saving strategies for the upgrade and/or replacement of building systems including, but not limited to: lighting, HVAC, refrigeration, compressed air and other operational energy savings. Additionally, the measure will utilize pre and post enrollment meter usage data to further evaluate building energy savings.	\$9,778	15	\$0.20 per kWh and/or \$550 per kW saved
		Retrocommissioning - SCI	per project	No	Adjusting electrical, electro-mechanical, mechanical and control system set points to improve system performance to existing building conditions and use, including the installation of energy savings measures and implementation of energy savings strategies identified through facility audit or building operations training.	\$28,634	15	\$0.20 per kWh and/or \$550 per kW saved
		Building Operations Training - SCI	per unit	No	Obtain Building Operations Certification (BOC) by attending a certified training program or other training programs as related to the efficient design, operations and maintenance of buildings.	\$5,000	5	Up to 70% of the cost to attend qualified BOC training course and NTE \$1000 per person.
		Energy Consultation - SCI	N/A	No	N/A	\$0	0	NA
Audits - SCI		per Audit	No	Comprehensive Energy Audit for commercial/industrial facilities or manufacturing processes recommending installation of efficient equipment, building shell/envelop improvements, manufacturing process changes, building operating changes, or other energy efficiency improvements. Audit must meet minimum audit requirements for buildings or for process equipment.	\$0	0	\$0.20 per kWh and/or \$550 per kW saved towards cost of audit	
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	MF - Tenant - DI - LCI	per tenant space	No	Multi-Family Tenant Space Audit w/ direct install measures.	\$200	15	Up to \$250 for the cost of an audit with direct install measures.
		MF - Tenant - Prescriptive - LCI	per Avg Appliance	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$207	12	Same value as incentives offered through the Residential programs.

Appendix B, Table 7: Eligible Measures
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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	MF - Tenant - Custom - LCI	per unit	No	Installation of Custom energy efficiency measures including, but not limited to: lighting, HVAC, appliances, etc.	\$269	15	Same value as incentives offered through the Residential programs.
		MF - Common - Prescriptive - LCI	per avg light	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$82	14	Same value as incentives offered through the Commercial & Industrial programs.
		MF - Common - Custom - LCI	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$2,947	15	Same value as incentives offered through the Commercial & Industrial programs.
		MF - Common - DI - LCI	per common space	No	Multi-Family Common Space Audit w/ direct install measures.	\$1,477	15	Up to 80% of the project cost
	Prescriptive - LCI	Air Conditioning - Level 1 <=5.4 Tn - LCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) SEER >= 16 and EER>=13. Includes Variable Refrigerant Flow (VRF) systems.	\$1,358	15	\$200
		Air Conditioning - Level 1 >5.4 < 20 Tn - LCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) exceeding applicable standard by 5%. Includes Variable Refrigerant Flow (VRF) systems.	\$1,014	15	\$150
		Air Conditioning - Level 1 >=20 Tn - LCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) exceeding applicable standard by 5%. Includes Variable Refrigerant Flow (VRF) systems.	\$99	15	\$120
		Heat Pump - Level 1 <=5.4 Tn - LCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System HP, HSPF >= 9 (split), HSPF>=8.2 (single package).	\$1,358	15	\$200
		Heat Pump - Water & GeOT - ES Tier 3 - LCI	per ton	No	Purchase and installation of a new or replacement groundwater source, water source or ground source heat pump system that meets or exceeds the energy efficiency requirements of the applicable standard by 5%. The following retrofit scenarios are considered: • Ground source heat pumps for existing or new non-residential HVAC applications • Groundwater source heat pumps for existing or new non-residential HVAC applications • Water source heat pumps for existing or new non-residential HVAC applications	\$8,802	15	\$300
		Ductless Mini-Split HP - Level 3 - LCI	per ton	No	Purchase and installation of a new ENERGY STAR Ductless Mini Split HP less than 5.4 tons, SEER >=20, EER >=12.5 EER, and HSPF>=10	\$498	15	\$300
		PTAC - LCI	per ton	No	Purchase and Installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$363	15	\$150
		PTHP - LCI	per ton	No	Purchase and Installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$363	15	\$150
		Room Air Conditioner- LCI	per ton	No	Purchase and installation of new unit meeting or exceeding the ENERGY STAR standard.	\$0	9	\$150
		Smart Thermostat - Rebate - LCI	per unit	No	Purchase and installation of a new smart thermostat that meets ENERGY STAR certification.	\$204	8	\$150
		HVAC - Custom - LCI	per project	No	Purchase and installation of new high-efficiency HVAC equipment in place of standard efficiency equipment. Also includes the purchase and installation of HVAC controls/controllers that optimizes ventilation and economization control schemes of a building's HVAC system based on occupancy or sensor level inputs.	\$65,998	15	\$0.20 per kWh and/or \$550 per kW saved
		Circulating Pump (Mid Strm) - LCI	per unit	No	Purchase and installation of a new ECM or BPM circulator pump, rip single speed motor for space heating in a commercial application.	\$38	15	\$150
		HVAC - Maintenance - LCI	per unit	No	Maintenance services applicable to C&I customers for documented tune-ups of packaged and split systems up to 20 Tons.	\$175	10	\$250
		Furnace Fan (Retrofit or New to ECM) - LCI	per unit	No	Purchase and installation of a high efficiency brushless permanent magnet fan motor (BPM or ECM) to replace a permanent split capacitor (PSC) motor.	\$242	15	\$150
		Lighting Controls (Daylight & Occupancy) - LCI	per sensor	No	Purchase and installation of non-networked lighting controls including, but not limited to: daylight On/Off, dimming, occupancy sensors (wall plate, remote & fixture mounted), time clocks and switching controls.	\$80	8	\$50
		Linear Fluorescent - LCI	per fixture	No	Purchase and installation of high performance T8 lamps replacing existing T8 lamps, or higher efficiency than existing or designed.	\$6	10	\$0.20 per kWh and/or \$550 per kW saved
		LED Linear - LCI	per fixture	No	Purchase and installation of linear LED lighting equipment to a higher efficiency than existing or designed. Must meet ENERGY STAR or DLC, as applicable.	\$31	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Channel Signage - LCI	per lin ft	No	Replacement, retrofit or new installation of channel letter signs w/ LED technology. Must meet ENERGY STAR or DLC, as applicable.	\$35	15	\$3
Exit Sign - LCI	per sign	No	Replacement or new installation of a lighting fixture wired for exclusive use with LED lamps installed in an exterior setting. Must meet ENERGY STAR or DLC, as applicable.	\$18	15	\$23		

**Appendix B, Table 7: Eligible Measures
Penn Power**

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Large	Prescriptive - LCI	LED Fixture External - LCI	per fixture	No	Replacement or new installation of a lighting fixture wired for exclusive use with LED lamps installed in an exterior setting. Must meet ENERGY STAR or DLC, as applicable.	\$203	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Fixture Internal - LCI	per fixture	No	Replacement or new installation of a lighting fixture wired for exclusive use with LED lamps installed in an interior setting. Must meet ENERGY STAR or DLC, as applicable.	\$40	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Lamp - LCI	per unit	No	Purchase and installation of an ENERGY STAR LED lamps, including A-Line and specialty lamps.	\$5	14	\$20
		Lighting - Other - LCI	per project	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$6,600	15	\$0.20 per kWh and/or \$550 per kW saved
		Street & Area Lighting (Customer Owned) - LCI	per fixture	No	Purchase and installation of new lighting equipment for Street and Area lighting applications to a greater efficiency than existing or designed	\$173	12	\$220
		LED Reach in Refrig / Frizer Light - LCI	per door	No	Purchase and installation of LED luminaires in vertical and horizontal refrigerated display cases replacing linear fluorescent lamp technology. Must meet ENERGY STAR or DLC, as applicable.	\$59	8	\$75
		Lighting - Custom - LCI	per project	No	Replacement or new installation of lighting to a higher efficiency than existing or designed lighting equipment. Specialty lighting applications may be eligible, but will require approval by the Company.	\$6,600	15	\$0.20 per kWh and/or \$550 per kW saved
		Network Lighting Control - LCI	per sq ft of Lighting Controlled	No	Purchase and installation of a networked lighting control system by applying, but not limited to: occupancy sensors, photo sensors, and dimming controls where the system must dim or turn off individual fixtures based on local occupancy and/or light levels. The control system must include luminaire-level lighting control (LLLC) that can switch lights on and off based on occupancy and is capable of full-range dimming based on local light levels.	\$1	8	\$0.60 Per Watt Controlled
		Linear Lamp - MS - LCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$7	15	\$0.20 per kWh and/or \$550 per kW saved
		High/Low Bay Lamp - MS - LCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$162	12	\$0.20 per kWh and/or \$550 per kW saved
		LED Fixture - MS - LCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$72	15	\$0.20 per kWh and/or \$550 per kW saved
		ECM Evap Fan Motor - LCI	per unit	No	Purchase and installation of a ECM motor to replace a permanent split capacitor or shaded pole motor in a commercial refrigeration unit.	\$227	15	\$75
		Evap Fan Controls - LCI	per unit	No	Purchase and installation of ON/OFF controls or multispeed controls for an uncontrolled ECM or permanent split capacitor or shaded pole motor in a commercial refrigeration unit.	\$532	10	\$200
		Refrigerator - Reach In - LCI	per unit	No	Purchase and installation of a new high efficiency packaged commercial refrigerator meeting ENERGY STAR.	\$729	12	\$200
		Freezer - Reach In - LCI	per unit	No	Purchase and installation of a new high efficiency packaged commercial freezer meeting ENERGY STAR.	\$977	12	\$200
		Refrigerated Case Cover - LCI	per lin ft	No	Purchase and installation of night covers on existing open type refrigerated display cases.	\$38	5	\$22
		Anti Sweat Heater Control - LCI	per door	No	Purchase and installation of anti-sweat door heaters on glass refrigerator or freezer doors with either ON/OFF controls or micropulse controls.	\$418	12	\$60
		Strip Curtain - LCI	per sq ft	No	Purchase and installation of strip curtains applied to walk in cooler or freezer doors; curtains must be at least 0.06" thick. Low temp strip curtains must be used on low temp applications.	\$10	4	\$3
		Ice Machine - LCI	per unit	No	Purchase and installation of new ENERGY STAR qualified ice machine.	\$378	8	\$590 0-500 lbs \$960 501-1000 lbs \$1100 over 1000 lbs
		Beverage Vending Machine - Controls - LCI	per unit	No	Retrofit controls for a non ENERGY STAR rated vending machine.	\$180	5	\$125
Beverage Vending Machine - Energy Star - LCI	per unit	No	The purchase and installation of an ENERGY STAR certified beverage vending machine.	\$180	5	\$150		
Steam Cooker - LCI	per unit	No	Purchase and installation of new a ENERGY STAR steam cooker.	\$351	12	\$300 - 3 pan \$400 - 4 pan \$500 - 5 pan \$600 - 6 pan		
Fryer - LCI	per unit	No	Purchase and installation of new a ENERGY STAR fryer.	\$1,038	12	\$500		

Appendix B, Table 7: Eligible Measures
Penn Power

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Large	Prescriptive - LCI	Griddle - LCI	per unit	No	Purchase and installation of new a ENERGY STAR griddle.	\$950	12	\$500
		Hot Food Holding Cabinet - LCI	per unit	No	Purchase and installation of new hot food holding cabinet meeting or exceeding ENERGY STAR standards.	\$421	12	\$500 - full size \$375 - 3/4 size \$225 - 1/2 size
		Combination Oven - LCI	per unit	No	Purchase and installation of new Combination Oven meeting or exceeding ENERGY STAR standards.	\$2,512	12	\$1,500
		Convection Oven - LCI	per unit	No	Purchase and installation of new Convection Oven meeting or exceeding ENERGY STAR standards.	\$539	12	\$500
		Dishwasher - LCI	per unit	No	Purchase and installation of a clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$882	10	\$500
		Induction Warmer/Rethernalizer Well - LCI	per unit	No	Purchase and installation of a energy efficient Rethernalizer & Food Warmers.	\$500	15	\$200
		Coffee Brewer - LCI	per unit	No	Purchase and installation of a an ENERGY STAR Type II small, medium, or large coffee brewer.	\$200	15	\$100
		Pre-Rinse Sprayer - LCI	per unit	No	Purchase and installation of a new sprayer replacing an existing unit that use 1.5 GPM or less, on/off squeeze lever, and cleanability of performance of at least 26 seconds. Electric water heating only.	\$6	8	\$55
		Refrigerator Recycling - LCI	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	6	\$75
		Freezer Recycling - LCI	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	5	\$75
		Room Air Conditioner Recycling - LCI	per unit	No	Removal of an existing inefficient room air conditioner from service, prior to its natural end of life (early retirement).	\$0	4	\$50
		Dehumidifiers Recycling - LCI	per unit	No	Removal of an existing inefficient room air conditioner from service, prior to its natural end of life (early retirement).	\$0	5	\$50
		EV Charging Cord - Level 2 - LCI	per unit	No	Purchase and installation of an ENERGY STAR rated EV Charger Cord.	\$500	10	\$100
		Clothes Washer Level 1&2 - LCI	per unit	No	Purchase and installation of a clothes washer meeting or exceeding ENERGY STAR, CEE Tier 1, or CEE Tier 2 specifications, as applicable.	\$187	11	\$75
		Clothes Washer Level 3 - LCI	per unit	No	Purchase and installation of a clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$187	11	\$100
		Clothes Dryer - LCI	per unit	No	Purchase and installation of a clothes dryer meeting or exceeding ENERGY STAR specifications with moisture sensor. Heat pump type clothes dryers are eligible.	\$358	12	\$75
		Refrigerator Level 1&2 - LCI	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR, CEE Tier 1 or CEE TIER 2 specifications, as applicable.	\$75	14	\$100
		Refrigerator Level 3 - LCI	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$75	14	\$150
		Water Heater - Heat Pump - LCI	per unit	No	Purchase and installation of new or replacement of inefficient electric water heater with a heat pump water heater with uniform energy factors meeting or exceeding the ENERGY STAR specifications. Solar water heating is also eligible.	\$651	10	\$750
		Freezer - LCI	per unit	No	Purchase and installation of a freezer meeting or exceeding ENERGY STAR specifications.	\$43	11	\$40
Dehumidifier - LCI	per unit	No	Purchase and installation of a new dehumidifier meeting or exceeding ENERGY STAR specifications.	\$11	12	\$25		
Water Cooler - LCI	per unit	No	Purchase and installation of a new water cooler meeting or exceeding ENERGY STAR specifications.	\$49	10	\$25		
Monitor - LCI	per unit	No	Purchase and installation of a new monitor meeting or exceeding ENERGY STAR specifications.	\$2	4	\$8		

Appendix B, Table 7: Eligible Measures
Penn Power

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Large	Prescriptive Other LCI	Computer - LCI	per unit	No	Purchase and installation of a new computer meeting or exceeding ENERGY STAR specifications.	\$19	4	\$8
		Uninterruptible Power Supply (UPS) - LCI	per kW rating of UPS	No	Purchase and installation of new UPS (less than 12 kW) that exceeds the minimum average efficiency standard as determined by Table 1 of the Energy Star UPS standard. Table 2 of the standard shall be used in calculating the loading of the UPS.	\$295	10	\$220
		Imaging - LCI	per unit	No	Purchase and installation of a new imaging equipment meeting or exceeding ENERGY STAR specifications.	\$11	6	\$8
		Small Network - LCI	per PC controlled	No	Purchase and installation of network level software that controls desktop computers and monitors power settings with the network. Software must be capable of measuring and managing power consumption of each desktop computer and monitor. Laptops are eligible but savings assume workstation includes desktop monitor, laptop computer with laptop screen in use.	\$30	5	\$15
		Advanced Pwr Strip - LCI	per unit	No	Purchase and installation of a new Tier 1 or Tier 2 Advance Power Strip (APS)	\$34	5	\$25
	Custom - LCI	Custom - Process Improvement - LCI	per project	No	Replacement or retrofit of existing equipment or process changes or enhancements that result in the more efficient use of electrical energy.	\$59,132	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Compressed Air - LCI	per project	No	Purchase and installation of new or replacement or retrofit of existing air compressor systems, including but not limited to: new compressors, air dryers, or increased storage capacity. Other efficiency measures such as: leak repair, controls, high efficiency nozzles, piping enhancements, and no loss drains are also eligible.	\$80,907	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Motors - Three Phase - LCI	per hp	No	Purchase and installation of a new premium efficiency motor as a direct replacement or for new construction applications	\$81,115	15	\$50
		Custom - Refrigeration - LCI	per project	No	Purchase and installation of a new or retrofit of refrigeration measures on small commercial walk-in refrigeration and coolers, including, but not limited to: high efficiency fan motors, evaporator fan controllers, floating head pressure controls, evaporator coil defrost controls and variable speed compressor motors.	\$76,149	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Equipment/Servers - LCI	per project	No	Purchase and installation new or retrofit of data center measures (servers, UPS, HVAC, etc.) and the optimization of those systems to decrease energy usage.	\$54,100	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - HVAC/Chtr/Cntrlr - LCI	per project	No	Purchase and installation of HVAC controls/controllers that optimizes ventilation and economization control schemes of a building's HVAC system based on occupancy or sensor level inputs.	\$131,997	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - VFDs < 10HP - LCI	per hp	No	Purchase and installation of a new VFD for an existing motor (less than or equal to 10 hp) driving fans, pumps and other suitable applications. VFD retrofits are not eligible.	\$1,774	15	\$150
		Custom - VFDs > 10 HP - LCI	per hp	No	Purchase and installation of a new VFD for an existing motor (greater than 10 hp) driving fans, pumps and other suitable applications. VFD retrofits are not eligible.	\$9,975	15	\$100
		Custom - Bldg Improvements - LCI	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to: wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$14,733	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - New Construction - LCI	per project	No	Implementation of design principles to reduce building electric consumption using current ASHRAE 90.1 or IECC baselines, as applicable.	\$16,931	15	\$0.20 per kWh and/or \$550 per kW saved
	Custom - Audit & Education - LCI	per Audit	No	Comprehensive Energy Audit for commercial/industrial facilities or manufacturing processes recommending installation of efficient equipment, building shell/envelop improvements, manufacturing process changes, building operating changes, or other energy efficiency improvements. Audit must meet minimum audit requirements for buildings or for process equipment.	\$0	1	\$0.20 per kWh and/or \$550 per kW saved towards cost of audit	
	Energy Management - LCI	Building Tune Up - LCI	Co Assumption	No	Portfolio of measures and services that focus on the adjustment, maintenance and improvement of building systems to achieve maximum operating efficiency, including the installation of energy efficiency measures.	\$176,573	5	Up to 80% of the project cost
		Virtual/Meter Data Commissioning - LCI	per project	No	Assessment of energy usage using meter data and analytics, engineering and building modeling to determine energy saving strategies for the upgrade and/or replacement of building systems including, but not limited to lighting, HVAC, refrigeration, compressed air and other operational energy savings. Additionally, the measure will utilize pre and post enrollment meter usage data to further evaluate building energy savings.	\$9,778	15	\$0.20 per kWh and/or \$550 per kW saved
		Retrocommissioning - LCI	per project	No	Adjusting electrical, electro-mechanical, mechanical and control system set points to improve system performance to existing building conditions and use, including the installation of energy savings measures and implementation of energy savings strategies identified through facility audit or building operations training.	\$159,750	15	\$0.20 per kWh and/or \$550 per kW saved
		Building Operations Training - LCI	per unit	No	Obtain Building Operations Certification (BOC) by attending a certified training program or other training programs as related to the efficient design, operations and maintenance of buildings.	\$5,000	5	Up to 70% of the cost to attend qualified BOC training course and NTE \$1000 per person.
Energy Consultation - LCI		N/A	No	N/A	\$0	0	NA	
Audits - LCI		per Audit	No	Comprehensive Energy Audit for commercial/industrial facilities or manufacturing processes recommending installation of efficient equipment, building shell/envelop improvements, manufacturing process changes, building operating changes, or other energy efficiency improvements. Audit must meet minimum audit requirements for buildings or for process equipment.	\$0	1	\$0.20 per kWh and/or \$550 per kW saved towards cost of audit	

¹ All values listed above for incentives are "Up to Values"

² The Company may provide tiered rebate amounts within the incentive ranges listed above for qualifying products that have varying characteristics (e.g. size, features, etc.)

³ The Company may provide prescriptive rebates in lieu of the performance incentives listed above for certain measures and/or applications where the prescriptive value is within the equivalent performance incentive range.

⁴ The Company may establish incentive tiers and/or incentive block structures within the performance incentives listed above for different end use technology or sub-measures (lighting, HVAC, etc.)

Appendix B, Table 8: Estimated Savings and Participation

Penn Power

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total	
Energy Efficient Products Program	Appliance Recycling	Freezer Recycling	Energy Savings (MWh/year)	171	171	171	171	171	854	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2	
			Projected Participation	247	247	247	247	247	1,235	
		Refrigerator Recycling	Energy Savings (MWh/year)	935	935	935	935	935	4,673	
			Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	0.8	
			Projected Participation	990	990	990	990	990	4,950	
		Room Air Conditioner Recycling	Energy Savings (MWh/year)	19	19	19	19	19	94	
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.3	
			Projected Participation	165	165	165	165	165	825	
		Dehumidifier Recycling	Energy Savings (MWh/year)	53	53	53	53	53	263	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
			Projected Participation	105	105	105	105	105	525	
		Appliance Rebate	Clothes Washer - Level 1	Energy Savings (MWh/year)	22	22	22	22	22	110
				Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
				Projected Participation	188	188	188	188	188	940
	Clothes Washer - Level 2		Energy Savings (MWh/year)	31	31	31	31	31	156	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	188	188	188	188	188	940	
	Clothes Washer - Level 3		Energy Savings (MWh/year)	27	27	27	27	27	133	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	150	150	150	150	150	750	
	Refrigerator - Level 1		Energy Savings (MWh/year)	17	17	17	17	17	83	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	360	360	360	360	360	1,800	
	Refrigerator - Level 2		Energy Savings (MWh/year)	16	16	16	16	16	80	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	180	180	180	180	180	900	
	Refrigerator - Level 3	Energy Savings (MWh/year)	11	11	11	11	11	53		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
		Projected Participation	90	90	90	90	90	450		
	Freezer	Energy Savings (MWh/year)	4	4	4	4	4	22		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
		Projected Participation	120	120	120	120	120	600		
	Clothes Dryer	Energy Savings (MWh/year)	10	10	10	10	10	50		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
		Projected Participation	526	526	526	526	526	2,630		
	Air Purifier / Cleaner	Energy Savings (MWh/year)	59	59	59	59	59	294		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
		Projected Participation	75	75	75	75	75	375		
	Room Air Conditioner - Level 1	Energy Savings (MWh/year)	10	10	10	10	10	51		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1		
		Projected Participation	500	500	500	500	500	2,500		
	Room Air Conditioner - Level 2	Energy Savings (MWh/year)	10	10	10	10	10	51		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1		
		Projected Participation	500	500	500	500	500	2,500		
	Dehumidifier	Energy Savings (MWh/year)	360	360	360	360	360	1,798		
		Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.5		
		Projected Participation	1,500	1,500	1,500	1,500	1,500	7,500		
	Water Heater	Energy Savings (MWh/year)	129	129	129	129	129	645		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
		Projected Participation	89	89	89	89	89	444		
	Pool Pump Variable Speed	Energy Savings (MWh/year)	117	117	117	117	117	583		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2		
		Projected Participation	72	72	72	72	72	360		
	Dishwasher	Energy Savings (MWh/year)	1	1	1	1	1	7		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
		Projected Participation	50	50	50	50	50	250		
	Water Cooler	Energy Savings (MWh/year)	0	0	0	0	0	1		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
		Projected Participation	1	1	1	1	1	5		
	EV Charging Cord - Level 2 - Res	Energy Savings (MWh/year)	0	0	0	0	0	1		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
		Projected Participation	4	4	4	4	4	20		
	Smart Thermostat - Apincs	Energy Savings (MWh/year)	61	61	61	61	61	306		
		Demand Reduction (MW)	-	-	-	-	-	-		
		Projected Participation	266	266	266	266	266	1,330		
	Residential Occupancy Sensor	Energy Savings (MWh/year)	0	0	0	0	0	0		
		Demand Reduction (MW)	-	-	-	-	-	-		
		Projected Participation	1	1	1	1	1	5		
	Ceiling Fan	Energy Savings (MWh/year)	7	7	7	7	7	36		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
		Projected Participation	150	150	150	150	150	750		
	Consumer Electronics	Monitor	Energy Savings (MWh/year)	15	15	15	15	15	74	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	540	540	540	540	540	2,700	
		Computer	Energy Savings (MWh/year)	18	18	18	18	18	92	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	135	135	135	135	135	675	
		Imaging	Energy Savings (MWh/year)	50	50	50	50	50	249	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1,220	1,220	1,220	1,220	1,220	6,100	
		Smart Strip Plug Outlet	Energy Savings (MWh/year)	19	19	19	19	19	93	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	142	142	142	142	142	710	
		TV	Energy Savings (MWh/year)	43	43	43	43	43	217	
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.7	
			Projected Participation	500	500	500	500	500	2,500	
	Sound Bar	Energy Savings (MWh/year)	0	0	0	0	0	0		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
		Projected Participation	1	1	1	1	1	5		
	Smart Home	Energy Savings (MWh/year)	0	0	0	0	0	0		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
		Projected Participation	1	1	1	1	1	5		

Appendix B, Table 8: Estimated Savings and Participation

Penn Power

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
Energy Efficient Products Program	HVAC	Heat Pump - Level 2	Energy Savings (MWh/year)	142	142	142	142	142	712
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	50	50	50	50	50	250
		Heat Pump - Level 3	Energy Savings (MWh/year)	42	42	42	42	42	210
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	12	12	12	12	12	60
		Central Air Conditioner - Level 2	Energy Savings (MWh/year)	5	5	5	5	5	27
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	15	15	15	15	15	75
		Central Air Conditioner - Level 3	Energy Savings (MWh/year)	2	2	2	2	2	12
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	5	5	5	5	5	25
		Ductless Mini-Split Heat Pump - Level 3	Energy Savings (MWh/year)	32	32	32	32	32	159
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	50	50	50	50	50	250
		PTAC - Level 2 - Multi Family	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		PTHP - Level 2 - Multi Family	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Heat Pump - Water & GeoT - ES Tier 3	Energy Savings (MWh/year)	17	17	17	17	17	85
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	5	5	5	5	5	25
		Furnace Fan (Retrofit or New to ECM)	Energy Savings (MWh/year)	1	1	1	1	1	5
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	8	8	8	8	8	40
		Smart Thermostat - HVAC	Energy Savings (MWh/year)	6	6	6	6	6	28
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	25	25	25	25	25	125
		HVAC - Custom	Energy Savings (MWh/year)	11	11	11	11	11	55
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	125	125	125	125	125	625
		Circulating Pump	Energy Savings (MWh/year)	1	1	1	1	1	4
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	5	5	5	5	5	25
		HE Bathroom Fans	Energy Savings (MWh/year)	1	1	1	1	1	5
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	25	25	25	25	25	125
		HVAC Quality Install	Energy Savings (MWh/year)	0	0	0	0	0	0
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Ductless Mini-Split A/C	Energy Savings (MWh/year)	3	3	3	3	3	16
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	20	20	20	20	20	100
Heat Pump (Air-Wtr) w Domestic Hot Water	Energy Savings (MWh/year)	4	4	4	4	4	18		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Energy Efficient Homes Program	Comprehensive Audits	Comprehensive Audit	Energy Savings (MWh/year)	26	53	53	53	53	237
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	30	60	60	60	60	270
	Multi Family - Res	MF - Tenant - DI - Res	Energy Savings (MWh/year)	4	8	8	8	8	34
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	17	34	34	34	34	153
		MF - Tenant - Prescriptive - Res	Energy Savings (MWh/year)	1	2	2	2	2	7
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	10	20	20	20	20	90
		MF - Tenant - Custom - Res	Energy Savings (MWh/year)	12	24	24	24	24	110
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	44	89	89	89	89	400
		MF - Common - Prescriptive - Res	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
	MF - Common - Custom - Res	Energy Savings (MWh/year)	10	10	10	10	10	49	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1	1	1	1	1	5	
	MF - Common - DI - Res	Energy Savings (MWh/year)	10	21	21	21	21	93	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	2	4	4	4	4	18	
	School Education	School Education	Energy Savings (MWh/year)	278	278	278	278	278	1,389
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	1,500	1,500	1,500	1,500	1,500	7,500
	EE Kits	Energy Efficiency Measures	Energy Savings (MWh/year)	2,786	2,786	2,786	2,786	2,786	13,930
			Demand Reduction (MW)	0.3	0.3	0.3	0.3	0.3	1.6
			Projected Participation	14,000	14,000	14,000	14,000	14,000	70,000
	Behavioral	On-Line Audit	Energy Savings (MWh/year)	228	228	228	228	228	1,138
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	1,750	1,750	1,750	1,750	1,750	8,750
		Behavioral 2021	Energy Savings (MWh/year)	896	-	-	-	-	896
			Demand Reduction (MW)	0.2	-	-	-	-	0.2
			Projected Participation	16,617	-	-	-	-	16,617
		Behavioral 2022	Energy Savings (MWh/year)	-	1,270	-	-	-	1,270
			Demand Reduction (MW)	-	0.2	-	-	-	0.2
			Projected Participation	-	14,964	-	-	-	14,964
		Behavioral 2023	Energy Savings (MWh/year)	-	-	774	-	-	774
			Demand Reduction (MW)	-	-	0.1	-	-	0.1
			Projected Participation	-	-	16,617	-	-	16,617
		Behavioral 2024	Energy Savings (MWh/year)	-	-	-	1,131	-	1,131
			Demand Reduction (MW)	-	-	-	0.2	-	0.2
			Projected Participation	-	-	-	14,964	-	14,964
		Behavioral 2025	Energy Savings (MWh/year)	-	-	-	-	609	609
			Demand Reduction (MW)	-	-	-	-	0.1	0.1
			Projected Participation	-	-	-	-	16,617	16,617

Appendix B, Table 8: Estimated Savings and Participation
Penn Power

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total		
Energy Efficient Homes Program	New Homes	NC - Townhouse and duplex units	Energy Savings (MWh/year)	289	289	289	289	289	1,443		
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.6		
			Projected Participation	172	172	172	172	172	860		
		NC - Two-on-Two condominium units	Energy Savings (MWh/year)	-	-	-	-	-	-	-	
			Demand Reduction (MW)	-	-	-	-	-	-	-	
			Projected Participation	-	-	-	-	-	-	-	
		NC - Single-family detached units	Energy Savings (MWh/year)	664	664	664	664	664	3,322		
			Demand Reduction (MW)	0.3	0.3	0.3	0.3	0.3	1.5		
			Projected Participation	239	239	239	239	239	1,195		
		NC - Multi Family Low Rise	Energy Savings (MWh/year)	11	11	11	11	11	53		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	8	8	8	8	8	40		
		NC - Manufactured Housing	Energy Savings (MWh/year)	2	2	2	2	2	9		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	1	1	1	1	1	5		
		NC - Multi Family High Rise	Energy Savings (MWh/year)	1	1	1	1	1	7		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	1	1	1	1	1	5		
		Low Income Energy Efficiency Program	Weatherization	Weatherization (WARM PLUS)	Energy Savings (MWh/year)	159	159	159	159	159	794
					Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
					Projected Participation	146	146	146	146	146	728
WARM Extra Measures	Energy Savings (MWh/year)			221	221	221	221	221	1,104		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation			359	359	359	359	359	1,795		
Freezer Recycling - LI	Energy Savings (MWh/year)			23	23	23	23	23	114		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation			33	33	33	33	33	165		
Refrigerator Recycling - LI	Energy Savings (MWh/year)			124	124	124	124	124	618		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation			131	131	131	131	131	655		
Room Air Conditioner Recycling - LI	Energy Savings (MWh/year)			2	2	2	2	2	9		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation			15	15	15	15	15	75		
Dehumidifier Recycling - LI	Energy Savings (MWh/year)			5	5	5	5	5	25		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation			10	10	10	10	10	50		
Clothes Washer - Level 1	Energy Savings (MWh/year)			3	3	3	3	3	15		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation			25	25	25	25	25	125		
Clothes Washer - Level 2	Energy Savings (MWh/year)	0	0	0	0	0	1				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	1	1	1	1	1	5				
Clothes Washer - Level 3	Energy Savings (MWh/year)	0	0	0	0	0	1				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	1	1	1	1	1	5				
Refrigerator - Level 1	Energy Savings (MWh/year)	1	1	1	1	1	5				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	20	20	20	20	20	100				
Refrigerator - Level 2	Energy Savings (MWh/year)	0	0	0	0	0	0				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	1	1	1	1	1	5				
Refrigerator - Level 3	Energy Savings (MWh/year)	0	0	0	0	0	1				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	1	1	1	1	1	5				
Freezer	Energy Savings (MWh/year)	0	0	0	0	0	1				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	5	5	5	5	5	25				
Clothes Dryer	Energy Savings (MWh/year)	0	0	0	0	0	1				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	10	10	10	10	10	50				
Air Purifier / Cleaner	Energy Savings (MWh/year)	2	2	2	2	2	8				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	2	2	2	2	2	10				
Room Air Conditioner - Level 1	Energy Savings (MWh/year)	0	0	0	0	0	2				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	15	15	15	15	15	75				
Room Air Conditioner - Level 2	Energy Savings (MWh/year)	0	0	0	0	0	0				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	1	1	1	1	1	5				
Dehumidifier	Energy Savings (MWh/year)	4	4	4	4	4	18				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	15	15	15	15	15	75				
Water Heater	Energy Savings (MWh/year)	-1	-1	-1	-1	-1	-7				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	-1	-1	-1	-1	-1	-5				
Pool Pump Variable Speed	Energy Savings (MWh/year)	-2	-2	-2	-2	-2	-8				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	-1	-1	-1	-1	-1	-5				
Dishwasher	Energy Savings (MWh/year)	0	0	0	0	0	0				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	1	1	1	1	1	5				
Water Cooler	Energy Savings (MWh/year)	0	0	0	0	0	1				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	-1	-1	-1	-1	-1	-5				
EV Charging Cord - Level 2 - Res	Energy Savings (MWh/year)	0	0	0	0	0	0				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	-1	-1	-1	-1	-1	-5				
Smart Thermostat - Aplncs	Energy Savings (MWh/year)	9	9	9	9	9	46				
	Demand Reduction (MW)	-	-	-	-	-	-				
	Projected Participation	40	40	40	40	40	200				
LI - School Education	School Education - LI	Energy Savings (MWh/year)	78	78	78	78	78	390			
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1			
		Projected Participation	370	370	370	370	370	1,848			
LI - EE Kits	Energy Efficiency Measures - LI	Energy Savings (MWh/year)	104	104	104	104	104	518			
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1			
		Projected Participation	460	460	460	460	460	2,300			

**Appendix B, Table 8: Estimated Savings and Participation
Penn Power**

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total	
Low Income Energy Efficiency Program	LI - Behavioral	<i>On-Line Audit - LI</i>	Energy Savings (MWh/year)	18	18	18	18	18	92	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	141	141	141	141	141	705	
		<i>Behavioral 2021 - LI</i>	Energy Savings (MWh/year)	505	-	-	-	-	505	
			Demand Reduction (MW)	0.1	-	-	-	-	0.1	
			Projected Participation	8,265	-	-	-	-	8,265	
		<i>Behavioral 2022 - LI</i>	Energy Savings (MWh/year)	-	731	-	-	-	731	
			Demand Reduction (MW)	-	0.1	-	-	-	0.1	
			Projected Participation	-	7,482	-	-	-	7,482	
		<i>Behavioral 2023 - LI</i>	Energy Savings (MWh/year)	-	-	731	-	-	731	
			Demand Reduction (MW)	-	-	0.1	-	-	0.1	
			Projected Participation	-	-	6,699	-	-	6,699	
		<i>Behavioral 2024 - LI</i>	Energy Savings (MWh/year)	-	-	-	679	-	679	
			Demand Reduction (MW)	-	-	-	0.1	-	0.1	
			Projected Participation	-	-	-	6,090	-	6,090	
		<i>Behavioral 2025 - LI</i>	Energy Savings (MWh/year)	-	-	-	-	618	618	
			Demand Reduction (MW)	-	-	-	-	0.1	0.1	
			Projected Participation	-	-	-	-	5,481	5,481	
		LI - Multifamily - Res	<i>MF - Tenant - DI - Res - LI</i>	Energy Savings (MWh/year)	39	39	39	39	39	194
				Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
				Projected Participation	96	96	96	96	96	480
	<i>MF - Tenant - Prescriptive - Res - LI</i>		Energy Savings (MWh/year)	8	8	8	8	8	38	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	96	96	96	96	96	480	
	<i>MF - Tenant - Custom - Res - LI</i>		Energy Savings (MWh/year)	91	91	91	91	91	457	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2	
			Projected Participation	333	333	333	333	333	1,663	
	<i>MF - Common - Prescriptive - Res - LI</i>		Energy Savings (MWh/year)	1	1	1	1	1	4	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	3	3	3	3	3	15	
	<i>MF - Common - Custom - Res - LI</i>		Energy Savings (MWh/year)	-	-	-	-	-	-	
			Demand Reduction (MW)	-	-	-	-	-	-	
			Projected Participation	-	-	-	-	-	-	
	<i>MF - Common - DI - Res - LI</i>		Energy Savings (MWh/year)	-	-	-	-	-	-	
			Demand Reduction (MW)	-	-	-	-	-	-	
			Projected Participation	-	-	-	-	-	-	
	LI - New Homes	<i>NC -Townhouse and duplex units - LI</i>	Energy Savings (MWh/year)	18	18	18	18	18	92	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	11	11	11	11	11	55	
		<i>NC - Two-on-Two condominium units - LI</i>	Energy Savings (MWh/year)	-	-	-	-	-	-	
			Demand Reduction (MW)	-	-	-	-	-	-	
			Projected Participation	-	-	-	-	-	-	
		<i>NC - Single-family detached units - LI</i>	Energy Savings (MWh/year)	-	-	-	-	-	-	
			Demand Reduction (MW)	-	-	-	-	-	-	
			Projected Participation	-	-	-	-	-	-	
<i>NC - Multi Family Low Rise - LI</i>		Energy Savings (MWh/year)	1	1	1	1	1	7		
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
		Projected Participation	1	1	1	1	1	5		
<i>NC - Manufactured Housing - LI</i>	Energy Savings (MWh/year)	-	-	-	-	-	-			
	Demand Reduction (MW)	-	-	-	-	-	-			
	Projected Participation	-	-	-	-	-	-			
<i>NC - Multi Family High Rise - LI</i>	Energy Savings (MWh/year)	-	-	-	-	-	-			
	Demand Reduction (MW)	-	-	-	-	-	-			
	Projected Participation	-	-	-	-	-	-			
C&I Energy Solutions for Business Program - Small	Multi Family - SCI	<i>MF - Tenant - DI - SCI - LI</i>	Energy Savings (MWh/year)	0	0	0	0	0	2	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		<i>MF - Tenant - Prescriptive - SCI - LI</i>	Energy Savings (MWh/year)	0	0	0	0	0	1	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	3	3	3	3	3	15	
		<i>MF - Tenant - Custom - SCI - LI</i>	Energy Savings (MWh/year)	-	-	-	-	-	-	
			Demand Reduction (MW)	-	-	-	-	-	-	
			Projected Participation	-	-	-	-	-	-	
		<i>MF - Common - Prescriptive - SCI - LI</i>	Energy Savings (MWh/year)	1	1	1	1	1	4	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	3	3	3	3	3	15	
		<i>MF - Common - Custom - SCI - LI</i>	Energy Savings (MWh/year)	-	-	-	-	-	-	
			Demand Reduction (MW)	-	-	-	-	-	-	
			Projected Participation	-	-	-	-	-	-	
		<i>MF - Common - DI - SCI - LI</i>	Energy Savings (MWh/year)	37	37	37	37	37	187	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		<i>MF - Tenant - DI - SCI</i>	Energy Savings (MWh/year)	2	3	3	3	3	14	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	7	14	14	14	14	63	
		<i>MF - Tenant - Prescriptive - SCI</i>	Energy Savings (MWh/year)	1	2	2	2	2	9	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	12	24	24	24	24	108	
		<i>MF - Tenant - Custom - SCI</i>	Energy Savings (MWh/year)	1	2	2	2	2	7	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	3	6	6	6	6	27	
<i>MF - Common - Prescriptive - SCI</i>	Energy Savings (MWh/year)	0	1	1	1	1	2			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	1	2	2	2	2	9			
<i>MF - Common - Custom - SCI</i>	Energy Savings (MWh/year)	10	10	10	10	10	49			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	1	1	1	1	1	5			
<i>MF - Common - DI - SCI</i>	Energy Savings (MWh/year)	10	21	21	21	21	93			
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0			
	Projected Participation	2	4	4	4	4	18			

Appendix B, Table 8: Estimated Savings and Participation

Penn Power

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Air Conditioning - Level 1 <=5.4 Tn - SCI	Energy Savings (MWh/year)	236	236	236	236	236	1,179
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.6
			Projected Participation	303	303	303	303	303	1,515
		Air Conditioning - Level 1 >5.4 < 20 Tn - SCI	Energy Savings (MWh/year)	41	41	41	41	41	204
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	56	56	56	56	56	280
		Air Conditioning - Level 1 >=20 Tn - SCI	Energy Savings (MWh/year)	6	6	6	6	6	28
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	3	3	3	3	3	15
		Heat Pump - Level 1 <=5.4 Tn - SCI	Energy Savings (MWh/year)	10	10	10	10	10	49
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	10	10	10	10	10	50
		Heat Pump - Water & GeoT - ES Tier 3 - SCI	Energy Savings (MWh/year)	5	5	5	5	5	23
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	2	2	2	2	2	10
		Ductless Mini-Split HP - Level 3 - SCI	Energy Savings (MWh/year)	17	17	17	17	17	85
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	23	23	23	23	23	115
		PTAC - SCI	Energy Savings (MWh/year)	14	14	14	14	14	69
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	147	147	147	147	147	735
		PTHP - SCI	Energy Savings (MWh/year)	4	4	4	4	4	20
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	22	22	22	22	22	110
		Room Air Conditioner - SCI	Energy Savings (MWh/year)	7	7	7	7	7	34
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	90	90	90	90	90	450
		Smart Thermostat - Rebate - SCI	Energy Savings (MWh/year)	4	4	4	4	4	20
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	22	22	22	22	22	110
		HVAC - Custom - SCI	Energy Savings (MWh/year)	37	37	37	37	37	183
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Circulating Pump (Mid Strm) - SCI	Energy Savings (MWh/year)	14	14	14	14	14	71
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	90	90	90	90	90	450
		HVAC - Maintenance - SCI	Energy Savings (MWh/year)	6	6	6	6	6	32
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	18	18	18	18	18	90
		Furnace Fan (Retrofit or New to ECM) - SCI	Energy Savings (MWh/year)	3	3	3	3	3	16
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	27	27	27	27	27	135
		Lighting Control (Daylight & Occupancy) - SCI	Energy Savings (MWh/year)	854	854	854	854	854	4,271
			Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	1.1
			Projected Participation	2,000	2,000	2,000	2,000	2,000	10,000
		Linear Fluorescent - SCI	Energy Savings (MWh/year)	16	16	16	16	16	80
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	135	135	135	135	135	675
		LED Linear - SCI	Energy Savings (MWh/year)	1,000	1,000	1,000	1,000	1,000	5,002
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.7
			Projected Participation	7,500	7,500	7,500	7,500	7,500	37,500
		LED Channel Signage - SCI	Energy Savings (MWh/year)	31	31	31	31	31	155
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	84	84	84	84	84	420
		Exit Sign - SCI	Energy Savings (MWh/year)	15	15	15	15	15	73
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	90	90	90	90	90	450
		LED Fixture External - SCI	Energy Savings (MWh/year)	94	94	94	94	94	471
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	168	168	168	168	168	840
LED Fixture Internal - SCI	Energy Savings (MWh/year)	22	22	22	22	22	108		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	162	162	162	162	162	810		
LED Lamp - SCI	Energy Savings (MWh/year)	8	8	8	8	8	40		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	314	314	314	314	314	1,570		
Lighting - Other - SCI	Energy Savings (MWh/year)	22	22	22	22	22	108		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Street & Area Lighting (Customer Owned) - SCI	Energy Savings (MWh/year)	1	1	1	1	1	3		
	Demand Reduction (MW)	-	-	-	-	-	-		
	Projected Participation	1	1	1	1	1	5		
LED Reach in Refrig / Frzer Light - SCI	Energy Savings (MWh/year)	71	71	71	71	71	355		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation	118	118	118	118	118	590		
Lighting - Custom - SCI	Energy Savings (MWh/year)	22	22	22	22	22	108		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Network Lighting Control - SCI	Energy Savings (MWh/year)	0	0	0	0	0	0		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	28	28	28	28	28	140		
Linear Lamp - MS - SCI	Energy Savings (MWh/year)	463	463	463	463	463	2,315		
	Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.6		
	Projected Participation	18,000	18,000	18,000	18,000	18,000	90,000		
High/Low Bay Lamp - MS - SCI	Energy Savings (MWh/year)	521	521	521	521	521	2,607		
	Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.5		
	Projected Participation	525	525	525	525	525	2,625		
LED Fixture - MS - SCI	Energy Savings (MWh/year)	71	71	71	71	71	353		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation	800	800	800	800	800	4,000		

**Appendix B, Table 8: Estimated Savings and Participation
Penn Power**

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	ECM Evap Fan Motor - SCI	Energy Savings (MWh/year)	6	6	6	6	6	31
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	4	4	4	4	4	20
		Evap Fan Controls - SCI	Energy Savings (MWh/year)	10	10	10	10	10	51
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	8	8	8	8	8	40
		Refrigerator - Reach In - SCI	Energy Savings (MWh/year)	14	14	14	14	14	68
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	30	30	30	30	30	150
		Freezer - Reach In - SCI	Energy Savings (MWh/year)	15	15	15	15	15	77
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	18	18	18	18	18	90
		Refrigerated Case Cover - SCI	Energy Savings (MWh/year)	2	2	2	2	2	10
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	45	45	45	45	45	225
		Anti Sweat Heater Controls - SCI	Energy Savings (MWh/year)	9	9	9	9	9	46
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	13	13	13	13	13	65
		Strip Curtain - SCI	Energy Savings (MWh/year)	25	25	25	25	25	127
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	144	144	144	144	144	720
		Ice Machine - SCI	Energy Savings (MWh/year)	4	4	4	4	4	19
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	8	8	8	8	8	40
		Beverage Vending Machine - Controls - SCI	Energy Savings (MWh/year)	3	3	3	3	3	14
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	2	2	2	2	2	10
		Beverage Vending Machine - Energy Star - SCI	Energy Savings (MWh/year)	10	10	10	10	10	49
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	7	7	7	7	7	35
		Steam Cooker - SCI	Energy Savings (MWh/year)	42	42	42	42	42	212
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	3	3	3	3	3	15
		Fryer - SCI	Energy Savings (MWh/year)	15	15	15	15	15	74
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	6	6	6	6	6	30
		Griddle - SCI	Energy Savings (MWh/year)	16	16	16	16	16	78
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	6	6	6	6	6	30
		Hot Food Holding Cabinet - SCI	Energy Savings (MWh/year)	10	10	10	10	10	52
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	6	6	6	6	6	30
		Combination Oven - SCI	Energy Savings (MWh/year)	36	36	36	36	36	181
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	2	2	2	2	2	10
		Convection Oven - SCI	Energy Savings (MWh/year)	4	4	4	4	4	19
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	2	2	2	2	2	10
		Dishwasher - SCI	Energy Savings (MWh/year)	6	6	6	6	6	30
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	2	2	2	2	2	10
		Induction Warmer/Rethernalizer Well - SCI	Energy Savings (MWh/year)	2	2	2	2	2	8
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	4	4	4	4	4	20
		Coffee Brewer - SCI	Energy Savings (MWh/year)	3	3	3	3	3	13
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	2	2	2	2	2	10
		Pre-Rinse Sprayer - SCI	Energy Savings (MWh/year)	34	34	34	34	34	170
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	71	71	71	71	71	355
		Agricultural Process Lighting	Energy Savings (MWh/year)	89	89	89	89	89	443
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	40	40	40	40	40	200
		Auto Milker Takeoff	Energy Savings (MWh/year)	2	2	2	2	2	11
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	5	5	5	5	5	25
		Dairy Scroll Compressor	Energy Savings (MWh/year)	4	4	4	4	4	19
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	4	4	4	4	4	20
		HE Ventilation Fans	Energy Savings (MWh/year)	39	39	39	39	39	195
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	40	40	40	40	40	200
		Heat Reclaimer	Energy Savings (MWh/year)	16	16	16	16	16	79
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	2	2	2	2	2	10
		High Volume Low Speed Fan	Energy Savings (MWh/year)	80	80	80	80	80	399
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	8	8	8	8	8	40
		Livestock Waterer	Energy Savings (MWh/year)	1	1	1	1	1	3
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	1	1	1	1	1	5
		Dairy Vac Pump VSD Control	Energy Savings (MWh/year)	155	155	155	155	155	776
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	8	8	8	8	8	40
		Low Pressure Irrigation	Energy Savings (MWh/year)	14	14	14	14	14	68
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	4	4	4	4	4	20
Custom - Agricultural	Energy Savings (MWh/year)	-	-	-	-	-	-		
	Demand Reduction (MW)	-	-	-	-	-	-		
	Projected Participation	-	-	-	-	-	-		
Dairy Refrigeration Tune-Up	Energy Savings (MWh/year)	0	0	0	0	0	1		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Engine Block Heater Timer	Energy Savings (MWh/year)	1	1	1	1	1	7		
	Demand Reduction (MW)	-	-	-	-	-	-		
	Projected Participation	2	2	2	2	2	10		
Street Lighting (Tariff / Utility Owned(EMU))	Energy Savings (MWh/year)	54	54	54	54	54	272		
	Demand Reduction (MW)	-	-	-	-	-	-		
	Projected Participation	90	90	90	90	90	450		
Street Lighting (Tariff / Customer Owned(MU))	Energy Savings (MWh/year)	1	1	1	1	1	3		
	Demand Reduction (MW)	-	-	-	-	-	-		
	Projected Participation	1	1	1	1	1	5		

Appendix B, Table 8: Estimated Savings and Participation

Penn Power

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
C&I Energy Solutions for Business Program - Small	Prescriptive Other - SCI	Refrigerator Recycling - SCI	Energy Savings (MWh/year)	52	52	52	52	52	260
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	54	54	54	54	54	270
		Freezer Recycling - SCI	Energy Savings (MWh/year)	9	9	9	9	9	47
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	14	14	14	14	14	70
		Room Air Conditioner Recycling - SCI	Energy Savings (MWh/year)	1	1	1	1	1	6
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	10	10	10	10	10	50
		Dehumidifiers Recycling - SCI	Energy Savings (MWh/year)	1	1	1	1	1	5
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	2	2	2	2	2	10
		EV Charging Cord - Level 2 - SCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	4	4	4	4	4	20
		Clothes Washer Level 1&2 - SCI	Energy Savings (MWh/year)	1	1	1	1	1	6
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	9	9	9	9	9	45
		Clothes Washer Level 3 - SCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Clothes Dryer - SCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	18	18	18	18	18	90
		Refrigerator Level 1&2 - SCI	Energy Savings (MWh/year)	3	3	3	3	3	14
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	35	35	35	35	35	175
		Refrigerator Level 3 - SCI	Energy Savings (MWh/year)	0	0	0	0	0	2
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	4	4	4	4	4	20
		Water Heater - Heat Pump - SCI	Energy Savings (MWh/year)	7	7	7	7	7	35
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	9	9	9	9	9	45
		Freezer - SCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	5	5	5	5	5	25
		Dehumidifier - SCI	Energy Savings (MWh/year)	3	3	3	3	3	15
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	14	14	14	14	14	70
		Water Cooler - SCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Monitor - SCI	Energy Savings (MWh/year)	1	1	1	1	1	7
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	61	61	61	61	61	305
		Computer - SCI	Energy Savings (MWh/year)	3	3	3	3	3	14
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	23	23	23	23	23	115
		Uninterruptible Power Supply (UPS) - SCI	Energy Savings (MWh/year)	9	9	9	9	9	46
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	9	9	9	9	9	45
		Imaging - SCI	Energy Savings (MWh/year)	10	10	10	10	10	51
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	43	43	43	43	43	215
		Small Network - SCI	Energy Savings (MWh/year)	10	10	10	10	10	51
Demand Reduction (MW)	0.0		0.0	0.0	0.0	0.0	0.0		
Projected Participation	43		43	43	43	43	215		
Advanced Pwr Strip - SCI	Energy Savings (MWh/year)	1	1	1	1	1	4		
	Demand Reduction (MW)	-	-	-	-	-	-		
	Projected Participation	9	9	9	9	9	45		
Custom - SCI	Custom - Process Improvement - SCI	Energy Savings (MWh/year)	268	268	268	268	268	1,339	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2	
		Projected Participation	10	10	10	10	10	50	
	Custom - Compressed Air - SCI	Energy Savings (MWh/year)	98	98	98	98	98	491	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
		Projected Participation	1	1	1	1	1	5	
	Custom - Motors - Three Phase - SCI	Energy Savings (MWh/year)	67	67	67	67	67	335	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	3	3	3	3	3	15	
	Custom - Refrigeration - SCI	Energy Savings (MWh/year)	191	191	191	191	191	954	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
		Projected Participation	2	2	2	2	2	10	
	Custom - Equipment/Servers - SCI	Energy Savings (MWh/year)	36	36	36	36	36	180	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1	1	1	1	1	5	
	Custom - HVAC/Chlr/Cntrls - SCI	Energy Savings (MWh/year)	147	147	147	147	147	734	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
		Projected Participation	4	4	4	4	4	20	
	Custom - VFDs < 10HP - SCI	Energy Savings (MWh/year)	236	236	236	236	236	1,182	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2	
		Projected Participation	40	40	40	40	40	200	
	Custom - VFDs > 10 HP - SCI	Energy Savings (MWh/year)	166	166	166	166	166	831	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	5	5	5	5	5	25	
	Custom - Bldg Improvements - SCI	Energy Savings (MWh/year)	589	589	589	589	589	2,947	
		Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	0.8	
		Projected Participation	12	12	12	12	12	60	
	Custom - New Construction - SCI	Energy Savings (MWh/year)	32	32	32	32	32	160	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1	1	1	1	1	5	
	Custom - Audit & Education - SCI	Energy Savings (MWh/year)	-	-	-	-	-	-	
		Demand Reduction (MW)	-	-	-	-	-	-	
		Projected Participation	1	1	1	1	1	5	

Appendix B, Table 8: Estimated Savings and Participation

Penn Power

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total		
C&I Energy Solutions for Business Program - Small	Energy Management - SCI	Building Tune Up - SCI	Energy Savings (MWh/year)	931	1,862	1,862	1,862	1,862	8,377		
			Demand Reduction (MW)	0.1	0.2	0.2	0.2	0.2	1.1		
			Projected Participation	9	18	18	18	18	81		
		Virtual/Meter Data Commissioning - SCI	Energy Savings (MWh/year)	33	65	65	65	65	293		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	1	2	2	2	2	9		
		Retrocommissioning - SCI	Energy Savings (MWh/year)	95	191	191	191	191	859		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1		
			Projected Participation	1	2	2	2	2	9		
		Building Operations Training - SCI	Energy Savings (MWh/year)	54	109	109	109	109	490		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1		
			Projected Participation	1	2	2	2	2	9		
		Energy Consultation - SCI	Energy Savings (MWh/year)	-	-	-	-	-	-		
			Demand Reduction (MW)	-	-	-	-	-	-		
			Projected Participation	-	-	-	-	-	-		
		Audits - SCI	Energy Savings (MWh/year)	-	-	-	-	-	-		
			Demand Reduction (MW)	-	-	-	-	-	-		
			Projected Participation	-	-	-	-	-	-		
		C&I Energy Solutions for Business Program - Large	Multi Family - LCI	MF - Tenant - DI - LCI	Energy Savings (MWh/year)	-	-	-	-	-	-
					Demand Reduction (MW)	-	-	-	-	-	-
					Projected Participation	-	-	-	-	-	-
MF - Tenant - Prescriptive - LCI	Energy Savings (MWh/year)			-	-	-	-	-	-		
	Demand Reduction (MW)			-	-	-	-	-	-		
	Projected Participation			-	-	-	-	-	-		
MF - Tenant - Custom - LCI	Energy Savings (MWh/year)			-	-	-	-	-	-		
	Demand Reduction (MW)			-	-	-	-	-	-		
	Projected Participation			-	-	-	-	-	-		
MF - Common - Prescriptive - LCI	Energy Savings (MWh/year)			-	-	-	-	-	-		
	Demand Reduction (MW)			-	-	-	-	-	-		
	Projected Participation			-	-	-	-	-	-		
MF - Common - Custom - LCI	Energy Savings (MWh/year)		-	-	-	-	-	-			
	Demand Reduction (MW)		-	-	-	-	-	-			
	Projected Participation		-	-	-	-	-	-			
MF - Common - DI - LCI	Energy Savings (MWh/year)		-	-	-	-	-	-			
	Demand Reduction (MW)		-	-	-	-	-	-			
	Projected Participation		-	-	-	-	-	-			
Prescriptive - LCI	Air Conditioning - Level 1 <=5.4 Tn - LCI		Energy Savings (MWh/year)	3	3	3	3	3	16		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	4	4	4	4	4	20		
	Air Conditioning - Level 1 >5.4 < 20 Tn - LCI	Energy Savings (MWh/year)	14	14	14	14	14	69			
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0			
		Projected Participation	19	19	19	19	19	95			
	Air Conditioning - Level 1 >=20 Tn - LCI	Energy Savings (MWh/year)	8	8	8	8	8	38			
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0			
		Projected Participation	4	4	4	4	4	20			
	Heat Pump - Level 1 <=5.4 Tn - LCI	Energy Savings (MWh/year)	3	3	3	3	3	15			
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0			
		Projected Participation	3	3	3	3	3	15			
	Heat Pump - Water & GeoT - ES Tier 3 - LCI	Energy Savings (MWh/year)	2	2	2	2	2	11			
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0			
		Projected Participation	1	1	1	1	1	5			
	Ductless Mini-Split HP - Level 3 - LCI	Energy Savings (MWh/year)	6	6	6	6	6	29			
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0			
		Projected Participation	10	10	10	10	10	50			
	PTAC - LCI	Energy Savings (MWh/year)	4	4	4	4	4	20			
Demand Reduction (MW)		0.0	0.0	0.0	0.0	0.0	0.0				
Projected Participation		42	42	42	42	42	210				
PTHP - LCI	Energy Savings (MWh/year)	1	1	1	1	1	7				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	8	8	8	8	8	40				
Room Air Conditioner - LCI	Energy Savings (MWh/year)	2	2	2	2	2	10				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	26	26	26	26	26	130				
Smart Thermostat -Rebate - LCI	Energy Savings (MWh/year)	2	2	2	2	2	9				
	Demand Reduction (MW)	-	-	-	-	-	-				
	Projected Participation	10	10	10	10	10	50				
HVAC - Custom - LCI	Energy Savings (MWh/year)	220	220	220	220	220	1,100				
	Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.3				
	Projected Participation	1	1	1	1	1	5				
Circulating Pump (Mid Strm) - LCI	Energy Savings (MWh/year)	31	31	31	31	31	155				
	Demand Reduction (MW)	-	-	-	-	-	-				
	Projected Participation	39	39	39	39	39	195				
HVAC - Maintenance - LCI	Energy Savings (MWh/year)	5	5	5	5	5	27				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	15	15	15	15	15	75				
Furnace Fan (Retrofit or New to ECM) - LCI	Energy Savings (MWh/year)	1	1	1	1	1	5				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	8	8	8	8	8	40				

Appendix B, Table 8: Estimated Savings and Participation

Penn Power

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
C&I Energy Solutions for Business Program - Large	Prescriptive - LCI	Lighting Controls (Daylight & Occupancy) - LCI	Energy Savings (MWh/year)	854	854	854	854	854	4,271
			Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	1.1
			Projected Participation	2,000	2,000	2,000	2,000	2,000	10,000
		Linear Fluorescent - LCI	Energy Savings (MWh/year)	59	59	59	59	59	296
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	500	500	500	500	500	2,500
		LED Linear - LCI	Energy Savings (MWh/year)	1,067	1,067	1,067	1,067	1,067	5,336
			Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	0.8
			Projected Participation	8,000	8,000	8,000	8,000	8,000	40,000
		LED Channel Signage - LCI	Energy Savings (MWh/year)	111	111	111	111	111	554
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	300	300	300	300	300	1,500
		Exit Sign - LCI	Energy Savings (MWh/year)	33	33	33	33	33	163
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	200	200	200	200	200	1,000
		LED Fixture External - LCI	Energy Savings (MWh/year)	168	168	168	168	168	842
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	300	300	300	300	300	1,500
		LED Fixture Internal - LCI	Energy Savings (MWh/year)	27	27	27	27	27	133
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	200	200	200	200	200	1,000
		LED Lamp - LCI	Energy Savings (MWh/year)	20	20	20	20	20	102
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	800	800	800	800	800	4,000
		Lighting - Other - LCI	Energy Savings (MWh/year)	22	22	22	22	22	108
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Street & Area Lighting (Customer Owned) - LCI	Energy Savings (MWh/year)	1	1	1	1	1	3
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	1	1	1	1	1	5
		LED Reach in Refrig / Frzr Light - LCI	Energy Savings (MWh/year)	60	60	60	60	60	301
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	100	100	100	100	100	500
		Lighting - Custom - LCI	Energy Savings (MWh/year)	22	22	22	22	22	108
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Network Lighting Control - LCI	Energy Savings (MWh/year)	0	0	0	0	0	0
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	60	60	60	60	60	300
		Linear Lamp - MS - LCI	Energy Savings (MWh/year)	309	309	309	309	309	1,544
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.4
			Projected Participation	12,000	12,000	12,000	12,000	12,000	60,000
		High/Low Bay Lamp - MS - LCI	Energy Savings (MWh/year)	655	655	655	655	655	3,277
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.6
			Projected Participation	660	660	660	660	660	3,300
		LED Fixture - MS - LCI	Energy Savings (MWh/year)	58	58	58	58	58	291
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	660	660	660	660	660	3,300
		ECM Evap Fan Motor - LCI	Energy Savings (MWh/year)	3	3	3	3	3	16
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	2	2	2	2	2	10
		Evap Fan Controls - LCI	Energy Savings (MWh/year)	3	3	3	3	3	13
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	2	2	2	2	2	10
		Refrigerator - Reach In - LCI	Energy Savings (MWh/year)	7	7	7	7	7	34
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	15	15	15	15	15	75
		Freezer - Reach In - LCI	Energy Savings (MWh/year)	4	4	4	4	4	21
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	5	5	5	5	5	25
Refrigerated Case Cover - LCI	Energy Savings (MWh/year)	1	1	1	1	1	5		
	Demand Reduction (MW)	-	-	-	-	-	-		
	Projected Participation	24	24	24	24	24	120		
Anti Sweat Heater Control - LCI	Energy Savings (MWh/year)	5	5	5	5	5	25		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	7	7	7	7	7	35		
Strip Curtain - LCI	Energy Savings (MWh/year)	14	14	14	14	14	68		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	77	77	77	77	77	385		
Ice Machine - LCI	Energy Savings (MWh/year)	1	1	1	1	1	5		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	2	2	2	2	2	10		
Beverage Vending Machine - Controls - LCI	Energy Savings (MWh/year)	1	1	1	1	1	7		
	Demand Reduction (MW)	-	-	-	-	-	-		
	Projected Participation	1	1	1	1	1	5		
Beverage Vending Machine - Energy Star - LCI	Energy Savings (MWh/year)	4	4	4	4	4	21		
	Demand Reduction (MW)	-	-	-	-	-	-		
	Projected Participation	3	3	3	3	3	15		
Steam Cooker - LCI	Energy Savings (MWh/year)	14	14	14	14	14	71		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Fryer - LCI	Energy Savings (MWh/year)	2	2	2	2	2	12		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Griddle - LCI	Energy Savings (MWh/year)	3	3	3	3	3	13		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Hot Food Holding Cabinet - LCI	Energy Savings (MWh/year)	2	2	2	2	2	9		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Pre-Rinse Sprayer - LCI	Energy Savings (MWh/year)	7	7	7	7	7	35		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	9	9	9	9	9	45		

Appendix B, Table 8: Estimated Savings and Participation

Penn Power

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
C&I Energy Solutions for Business Program - Large	Prescriptive - LCI	Combination Oven - LCI	Energy Savings (MWh/year)	18	18	18	18	18	91
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Convection Oven - LCI	Energy Savings (MWh/year)	2	2	2	2	2	10
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Dishwasher - LCI	Energy Savings (MWh/year)	3	3	3	3	3	15
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Induction Warmer/Rethermalizer Well - LCI	Energy Savings (MWh/year)	1	1	1	1	1	4
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	2	2	2	2	2	10
		Coffee Brewer - LCI	Energy Savings (MWh/year)	1	1	1	1	1	7
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Water Heater - Heat Pump - LCI	Energy Savings (MWh/year)	9	9	9	9	9	43
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	18	18	18	18	18	90
	Prescriptive Other - LCI	Refrigerator Recycling - LCI	Energy Savings (MWh/year)	1	1	1	1	1	5
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Freezer Recycling - LCI	Energy Savings (MWh/year)	1	1	1	1	1	3
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Room Air Conditioner Recycling - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Dehumidifiers Recycling - LCI	Energy Savings (MWh/year)	0	0	0	0	0	2
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		EV Charging Cord - Level 2 - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	4	4	4	4	4	20
		Clothes Washer Level 1&2 - LCI	Energy Savings (MWh/year)	1	1	1	1	1	6
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	9	9	9	9	9	45
	Clothes Washer Level 3 - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1	1	1	1	1	5	
	Clothes Dryer - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	18	18	18	18	18	90	
	Refrigerator Level 1&2 - LCI	Energy Savings (MWh/year)	6	6	6	6	6	29	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	75	75	75	75	75	375	
	Refrigerator Level 3 - LCI	Energy Savings (MWh/year)	1	1	1	1	1	4	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	8	8	8	8	8	40	
	Freezer - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	5	5	5	5	5	25	
	Dehumidifier - LCI	Energy Savings (MWh/year)	3	3	3	3	3	15	
Demand Reduction (MW)		0.0	0.0	0.0	0.0	0.0	0.0		
Projected Participation		14	14	14	14	14	70		
Water Cooler - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Monitor - LCI	Energy Savings (MWh/year)	0	0	0	0	0	0		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Computer - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Uninterruptible Power Supply (UPS) - LCI	Energy Savings (MWh/year)	1	1	1	1	1	5		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Imaging - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Small Network - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Advanced Pwr Strip - LCI	Energy Savings (MWh/year)	0	0	0	0	0	0		
	Demand Reduction (MW)	-	-	-	-	-	-		
	Projected Participation	1	1	1	1	1	5		

Appendix B, Table 8: Estimated Savings and Participation

Penn Power

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
C&I Energy Solutions for Business Program - Large	Custom - LCI	Custom - Process Improvement - LCI	Energy Savings (MWh/year)	1,183	1,183	1,183	1,183	1,183	5,913
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.7
			Projected Participation	6	6	6	6	6	30
		Custom - Compressed Air - LCI	Energy Savings (MWh/year)	270	270	270	270	270	1,348
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	1	1	1	1	1	5
		Custom - Motors - Three Phase - LCI	Energy Savings (MWh/year)	270	270	270	270	270	1,352
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	2	2	2	2	2	10
		Custom - Refrigeration - LCI	Energy Savings (MWh/year)	127	127	127	127	127	635
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Custom - Equipment/Servers - LCI	Energy Savings (MWh/year)	180	180	180	180	180	902
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	1	1	1	1	1	5
		Custom - HVAC/Chlr/Cntrls - LCI	Energy Savings (MWh/year)	440	440	440	440	440	2,200
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.6
			Projected Participation	2	2	2	2	2	10
		Custom - VFDs < 10HP - LCI	Energy Savings (MWh/year)	35	35	35	35	35	177
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	6	6	6	6	6	30
		Custom - VFDs > 10 HP - LCI	Energy Savings (MWh/year)	66	66	66	66	66	332
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	2	2	2	2	2	10
		Custom - Bldg Improvements - LCI	Energy Savings (MWh/year)	98	98	98	98	98	491
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	2	2	2	2	2	10
		Custom - New Construction - LCI	Energy Savings (MWh/year)	56	56	56	56	56	282
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	1	1	1	1	1	5
	Custom - Audit & Education - LCI	Energy Savings (MWh/year)	-	-	-	-	-	-	
		Demand Reduction (MW)	-	-	-	-	-	-	
		Projected Participation	1	1	1	1	1	5	
	Energy Management - LCI	Building Tune Up - LCI	Energy Savings (MWh/year)	399	797	797	797	797	3,588
			Demand Reduction (MW)	0.1	0.2	0.2	0.2	0.2	0.8
			Projected Participation	1	2	2	2	2	9
		Virtual/Meter Data Commissioning - LCI	Energy Savings (MWh/year)	65	98	98	98	98	456
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	2	3	3	3	3	14
		Retrocommissioning - LCI	Energy Savings (MWh/year)	532	532	532	532	532	2,662
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.7
			Projected Participation	1	1	1	1	1	5
		Building Operations Training - LCI	Energy Savings (MWh/year)	109	163	163	163	163	763
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	2	3	3	3	3	14
		Energy Consultation - LCI	Energy Savings (MWh/year)	-	-	-	-	-	-
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	-	-	-	-	-	-
Audits - LCI		Energy Savings (MWh/year)	-	-	-	-	-	-	
		Demand Reduction (MW)	-	-	-	-	-	-	
		Projected Participation	-	-	-	-	-	-	

Appendix B, Table 9-1: Program Budget							
Penn Power							
Energy Efficient Products Program							
Cost Element	PY13	PY14	PY15	PY16	PY17	Phase IV Total	
Total Budget (\$000)	\$727	\$712	\$710	\$711	\$711	\$3,571	
Incentives (\$000)	Rebates	\$290	\$290	\$290	\$290	\$290	\$1,449
	Upstream/Midstream Buydown	\$13	\$13	\$13	\$13	\$13	\$64
	Kits	\$0	\$0	\$0	\$0	\$0	\$0
	Direct Install Materials & Labor	\$0	\$0	\$0	\$0	\$0	\$0
	Incentive Total	\$303	\$303	\$303	\$303	\$303	\$1,513
Non-Incentives (\$000)	Program Design	\$16	\$17	\$17	\$17	\$17	\$84
	Administrative	\$59	\$48	\$47	\$48	\$47	\$250
	EDC Delivery Costs	\$0	\$0	\$0	\$0	\$0	\$0
	CSP Delivery Fees	\$235	\$233	\$233	\$233	\$233	\$1,166
	Marketing	\$85	\$86	\$86	\$86	\$86	\$428
	EM&V	\$26	\$25	\$25	\$25	\$25	\$127
	Other ¹	\$3	\$0	\$0	\$0	\$0	\$3
Non-Incentive Total	\$425	\$409	\$408	\$409	\$408	\$2,058	
Percent Incentives	42%	43%	43%	43%	43%	42%	

Appendix B, Table 9-2: Program Budget							
Penn Power							
Energy Efficient Homes Program							
Cost Element	PY13	PY14	PY15	PY16	PY17	Phase IV Total	
Total Budget (\$000)	\$1,619	\$1,574	\$1,591	\$1,574	\$1,591	\$7,948	
Incentives (\$000)	Rebates	\$390	\$405	\$405	\$405	\$405	\$2,011
	Upstream/Midstream Buydown	\$0	\$0	\$0	\$0	\$0	\$0
	Kits	\$634	\$634	\$634	\$634	\$634	\$3,168
	Direct Install Materials & Labor	\$6	\$11	\$11	\$11	\$11	\$50
	Incentive Total	\$1,030	\$1,050	\$1,050	\$1,050	\$1,050	\$5,229
Non-Incentives (\$000)	Program Design	\$23	\$22	\$23	\$22	\$23	\$114
	Administrative	\$85	\$64	\$65	\$63	\$65	\$341
	EDC Delivery Costs	\$0	\$0	\$0	\$0	\$0	\$0
	CSP Delivery Fees	\$339	\$304	\$317	\$304	\$317	\$1,581
	Marketing	\$79	\$79	\$79	\$79	\$79	\$395
	EM&V	\$58	\$56	\$57	\$56	\$57	\$284
	Other ¹	\$4	\$0	\$0	\$0	\$0	\$4
Non-Incentive Total	\$588	\$524	\$541	\$524	\$542	\$2,720	
Percent Incentives	64%	67%	66%	67%	66%	66%	

Appendix B, Table 9-3: Program Budget							
Penn Power							
Low Income Energy Efficiency Program							
Cost Element		PY13	PY14	PY15	PY16	PY17	Phase IV Total
Total Budget (\$000)		\$850	\$808	\$797	\$790	\$782	\$4,027
Incentives (\$000)	Rebates	\$36	\$36	\$36	\$36	\$36	\$179
	Upstream/Midstream Buydown	\$0	\$0	\$0	\$0	\$0	\$0
	Kits	\$42	\$42	\$42	\$42	\$42	\$210
	Direct Install Materials & Labor	\$421	\$421	\$421	\$421	\$421	\$2,103
	Incentive Total	\$498	\$498	\$498	\$498	\$498	\$2,491
Non-Incentives (\$000)	Program Design	\$14	\$13	\$13	\$12	\$12	\$63
	Administrative	\$51	\$37	\$35	\$34	\$33	\$191
	EDC Delivery Costs	\$0	\$0	\$0	\$0	\$0	\$0
	CSP Delivery Fees	\$214	\$190	\$183	\$177	\$172	\$936
	Marketing	\$41	\$40	\$40	\$40	\$39	\$200
	EM&V	\$30	\$29	\$28	\$28	\$28	\$144
	Other ¹	\$3	\$0	\$0	\$0	\$0	\$3
	Non-Incentive Total	\$352	\$309	\$299	\$292	\$284	\$1,536
Percent Incentives		59%	62%	63%	63%	64%	62%

Appendix B, Table 9-4: Program Budget							
Penn Power							
C&I Energy Solutions for Business Program - Small							
Cost Element ²		PY13	PY14	PY15	PY16	PY17	Phase IV Total
Total Budget (\$000)		\$1,764	\$2,076	\$2,074	\$2,075	\$2,074	\$10,063
Incentives (\$000)	Rebates	\$610	\$628	\$628	\$628	\$628	\$3,122
	Upstream/Midstream Buydown	\$76	\$76	\$76	\$76	\$76	\$378
	Kits	\$0	\$0	\$0	\$0	\$0	\$0
	Direct Install Materials & Labor	\$369	\$680	\$680	\$680	\$680	\$3,091
	Incentive Total	\$1,054	\$1,384	\$1,384	\$1,384	\$1,384	\$6,590
Non-Incentives (\$000)	Program Design	\$27	\$28	\$28	\$29	\$29	\$141
	Administrative	\$100	\$81	\$80	\$80	\$80	\$421
	EDC Delivery Costs	\$0	\$0	\$0	\$0	\$0	\$0
	CSP Delivery Fees	\$464	\$457	\$457	\$457	\$457	\$2,291
	Marketing	\$50	\$51	\$51	\$52	\$51	\$256
	EM&V	\$63	\$74	\$74	\$74	\$74	\$359
	Other ¹	\$5	\$0	\$0	\$0	\$0	\$5
Non-Incentive Total	\$709	\$692	\$690	\$691	\$690	\$3,473	
Percent Incentives		60%	67%	67%	67%	67%	65%

Appendix B, Table 9-5: Program Budget

Penn Power

C&I Energy Solutions for Business Program - Large

Cost Element		PY13	PY14	PY15	PY16	PY17	Phase IV Total
Total Budget (\$000)		\$1,499	\$1,546	\$1,544	\$1,545	\$1,545	\$7,678
Incentives (\$000)	Rebates	\$650	\$659	\$659	\$659	\$659	\$3,285
	Upstream/Midstream Buydown	\$76	\$76	\$76	\$76	\$76	\$380
	Kits	\$0	\$0	\$0	\$0	\$0	\$0
	Direct Install Materials & Labor	\$124	\$247	\$247	\$247	\$247	\$1,112
	Incentive Total	\$850	\$982	\$982	\$982	\$982	\$4,778
Non-Incentives (\$000)	Program Design	\$25	\$23	\$23	\$24	\$23	\$119
	Administrative	\$92	\$67	\$66	\$66	\$66	\$357
	EDC Delivery Costs	\$0	\$0	\$0	\$0	\$0	\$0
	CSP Delivery Fees	\$437	\$383	\$383	\$383	\$383	\$1,970
	Marketing	\$36	\$35	\$35	\$35	\$35	\$177
	EM&V	\$53	\$55	\$55	\$55	\$55	\$274
	Other ¹	\$5	\$0	\$0	\$0	\$0	\$5
	Non-Incentive Total	\$649	\$564	\$562	\$563	\$563	\$2,901
Percent Incentives		57%	64%	64%	64%	64%	62%

¹ Includes External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 10-1: Sector-Specific Summary of EE&C Costs

Penn Power												
Residential Portfolio (including Low Income)												
EE&C Program	Cost Elements (\$)								Total Cost	Expected Acquisition Cost (\$/MWh)	Levelized Cost (\$/MWh)	Expected Acquisition Cost (\$/MW)
	Incentives	Program Design	Administrative	EDC Delivery Costs	CSP Delivery Fees	Marketing	EM&V	Other (Describe)				
<i>Energy Efficient Products Program</i>	\$1,513	-	-	-	\$1,166	\$364	\$127	-	\$3,170	\$0.26	\$0.35	\$981
<i>Energy Efficient Homes Program</i>	\$5,229	-	-	-	\$1,581	\$307	\$284	-	\$7,401	\$0.28	\$0.21	\$1,444
<i>Low Income Energy Efficiency Program</i>	\$2,491	-	-	-	\$936	\$151	\$144	-	\$3,722	\$0.48	\$0.48	\$2,706
Sector Total	\$9,233	\$0	\$0	\$0	\$3,683	\$823	\$555	\$0	\$14,294	\$1	\$1.04	\$5,131

Appendix B, Table 10-2: Sector-Specific Summary of EE&C Costs

Penn Power												
Small Commercial & Industrial ¹												
EE&C Program	Cost Elements (\$)								Total Cost	Expected Acquisition Cost (\$/MWh)	Levelized Cost (\$/MWh)	Expected Acquisition Cost (\$/MW)
	Incentives	Program Design	Administrative	EDC Delivery Costs	CSP Delivery Fees	Marketing	EM&V	Other (Describe)				
<i>C&I Energy Solutions for Business Program - Small</i>	\$6,590	-	-	-	\$2,291	\$148	\$359	-	\$9,388	\$0.22	\$0.23	\$1,223
Sector Total	\$6,590	\$0	\$0	\$0	\$2,291	\$148	\$359	\$0	\$9,388	\$0	\$0.23	\$1,223

Appendix B, Table 10-3: Sector-Specific Summary of EE&C Cost:

Penn Power												
Large Commercial & Industrial												
EE&C Program	Cost Elements (\$)								Total Cost	Expected Acquisition Cost (\$/MWh)	Levelized Cost (\$/MWh)	Expected Acquisition Cost (\$/MW)
	Incentives	Program Design	Administrative	EDC Delivery Costs	CSP Delivery Fees	Marketing	EM&V	Other (Describe)				
<i>C&I Energy Solutions for Business Program - Large</i>	\$4,778	-	-	-	\$1,970	\$85	\$274	-	\$7,107	\$0.18	\$0.18	\$966
Sector Total	\$4,778	\$0	\$0	\$0	\$1,970	\$85	\$274	\$0	\$7,107	\$0	\$0.18	\$966

¹ Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 11: Allocation of Common Costs to Applicable Customer Sector

Penn Power

Common Cost Element	Total Cost (\$000)	Basis for Cost Allocation ³	Sector Cost Allocation (\$000)		
			Residential (Including Low Income)	Commercial & Industrial - Small	Commercial & Industrial - Large
Program Design	\$520	See Footnote 3	\$261	\$141	\$119
Administrative	\$1,560	See Footnote 3	\$782	\$421	\$357
Marketing ¹	\$400	See Footnote 3	\$200	\$108	\$91
Other (Describe) ²	\$20	See Footnote 3	\$10	\$5	\$5
Totals	\$2,500		\$1,253	\$675	\$571

¹ Includes Utility Marketing/General Awareness

² Includes External Legal

³ Ratio of each programs specific delivery and marketing costs

Appendix B, Table 12: Summary of Portfolio EE&C Costs

Penn Power			
Portfolio	Total Sector Portfolio-specific Costs	Total Common Costs	Total of All Costs
<i>Residential (Including Low Income)</i>	\$14,294	\$1,253	\$15,547
<i>Commercial/Industrial -- Small¹</i>	\$9,388	\$675	\$10,063
<i>Commercial/Industrial -- Large</i>	\$7,107	\$571	\$7,678
Totals	\$30,789	\$2,500	\$33,288

¹ Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 13-1: TRC Benefits Table (Gross)

Penn Power

Portfolio	Program Year	NTGR & TRC Ratio		TRC Costs By Program Per Year (\$000)				TRC Benefits By Program Per Year (\$000)				
		NTGR	TRC	Incremental Measure Cost		Program Administration Cost	Total TRC Costs	Capacity Benefits	Energy Benefits	Fossil Fuel Benefits	O&M and Water Benefits	Total TRC Benefits
				Paid by EDC	Paid by Participants							
<i>Energy Efficient Products Program</i>	PY13	1.0	0.8	\$366	\$517	\$425	\$1,308	\$347	\$630	\$3	\$92	\$1,072
	PY14	1.0	0.8	\$329	\$492	\$409	\$1,230	\$336	\$618	\$3	\$87	\$1,045
	PY15	1.0	0.9	\$294	\$469	\$408	\$1,171	\$327	\$610	\$3	\$83	\$1,023
	PY16	1.0	0.9	\$261	\$446	\$409	\$1,116	\$317	\$605	\$3	\$79	\$1,005
	PY17	1.0	0.9	\$229	\$425	\$408	\$1,062	\$308	\$601	\$3	\$75	\$987
Energy Efficient Products Program Total		1.0	0.9	\$1,479	\$2,349	\$2,058	\$5,887	\$1,635	\$3,064	\$17	\$416	\$5,133
<i>Energy Efficient Homes Program</i>	PY13	1.0	1.3	\$1,035	\$340	\$588	\$1,964	\$760	\$1,599	\$10	\$243	\$2,613
	PY14	1.0	1.4	\$961	\$324	\$524	\$1,809	\$737	\$1,575	\$10	\$231	\$2,553
	PY15	1.0	1.4	\$888	\$309	\$541	\$1,738	\$716	\$1,555	\$10	\$220	\$2,501
	PY16	1.0	1.5	\$823	\$294	\$524	\$1,641	\$695	\$1,538	\$10	\$209	\$2,452
	PY17	1.0	1.5	\$755	\$280	\$542	\$1,577	\$675	\$1,520	\$10	\$199	\$2,404
Energy Efficient Homes Program Total		1.0	1.4	\$4,462	\$1,547	\$2,720	\$8,729	\$3,583	\$7,787	\$51	\$1,102	\$12,523
<i>Low Income Energy Efficiency Program</i>	PY13	1.0	0.5	\$664	\$15	\$352	\$1,031	\$131	\$327	\$0	\$12	\$470
	PY14	1.0	0.5	\$618	\$14	\$309	\$941	\$127	\$321	\$0	\$11	\$460
	PY15	1.0	0.5	\$575	\$13	\$299	\$887	\$123	\$317	\$0	\$10	\$451
	PY16	1.0	0.5	\$534	\$13	\$292	\$839	\$120	\$313	\$0	\$10	\$444
	PY17	1.0	0.6	\$496	\$12	\$284	\$792	\$116	\$310	\$0	\$9	\$436
Low Income Energy Efficiency Program Total		1.0	0.5	\$2,887	\$66	\$1,536	\$4,489	\$617	\$1,588	\$2	\$53	\$2,260
<i>C&I Energy Solutions for Business Program - Small</i>	PY13	1.0	1.2	\$1,054	\$1,723	\$709	\$3,487	\$1,267	\$2,841	\$0	\$202	\$4,310
	PY14	1.0	1.3	\$971	\$1,641	\$692	\$3,304	\$1,229	\$2,795	\$0	\$192	\$4,215
	PY15	1.0	1.3	\$892	\$1,563	\$690	\$3,145	\$1,193	\$2,756	\$0	\$182	\$4,132
	PY16	1.0	1.4	\$817	\$1,489	\$691	\$2,997	\$1,159	\$2,722	\$0	\$174	\$4,055
	PY17	1.0	1.4	\$745	\$1,418	\$690	\$2,853	\$1,126	\$2,690	\$0	\$165	\$3,982
C&I Energy Solutions for Business Program - Small Total		1.0	1.3	\$4,480	\$7,834	\$3,473	\$15,786	\$5,974	\$13,804	\$0	\$914	\$20,693
<i>C&I Energy Solutions for Business Program - Large</i>	PY13	1.0	1.4	\$850	\$1,554	\$649	\$3,053	\$1,207	\$2,832	\$0	\$185	\$4,224
	PY14	1.0	1.5	\$782	\$1,480	\$564	\$2,827	\$1,171	\$2,785	\$0	\$176	\$4,131
	PY15	1.0	1.5	\$718	\$1,410	\$562	\$2,691	\$1,137	\$2,745	\$0	\$167	\$4,050
	PY16	1.0	1.6	\$657	\$1,343	\$563	\$2,563	\$1,105	\$2,712	\$0	\$159	\$3,975
	PY17	1.0	1.6	\$599	\$1,279	\$563	\$2,441	\$1,073	\$2,679	\$0	\$151	\$3,904
C&I Energy Solutions for Business Program - Large Total		1.0	1.5	\$3,607	\$7,067	\$2,901	\$13,574	\$5,693	\$13,753	\$0	\$837	\$20,284
Total			1.3	\$16,915	\$18,863	\$12,687	\$48,466	\$17,502	\$39,997	\$71	\$3,323	\$60,893

Appendix B, Table 13-2: TRC Benefits Table (Net)

Penn Power

Portfolio	NTGR & TRC Ratio			TRC Costs By Program Per Year (\$000)				TRC Benefits By Program Per Year (\$000)				
	Program Year	NTGR	TRC	Incremental Measure Cost		Program Administration Cost	Total TRC Costs	Capacity Benefits	Energy Benefits	Fossil Fuel Benefits	O&M and Water Benefits	Total TRC Benefits
				Paid by EDC	Paid by Participants							
<i>Energy Efficient Products Program</i>	PY13	0.5	0.6	\$366	\$173	\$425	\$964	\$176	\$314	\$2	\$92	\$583
	PY14	0.5	0.6	\$329	\$165	\$409	\$903	\$171	\$308	\$2	\$87	\$567
	PY15	0.5	0.6	\$294	\$157	\$408	\$859	\$166	\$304	\$2	\$83	\$554
	PY16	0.5	0.7	\$261	\$150	\$409	\$819	\$161	\$301	\$2	\$79	\$543
	PY17	0.5	0.7	\$229	\$142	\$408	\$779	\$156	\$299	\$2	\$75	\$532
Energy Efficient Products Program Total	0.5	0.6	\$1,479	\$787	\$2,058	\$4,325	\$830	\$1,526	\$9	\$416	\$2,780	
<i>Energy Efficient Homes Program</i>	PY13	0.8	1.1	\$1,035	\$149	\$588	\$1,772	\$565	\$1,187	\$8	\$243	\$2,003
	PY14	0.8	1.2	\$961	\$142	\$524	\$1,627	\$548	\$1,169	\$7	\$231	\$1,955
	PY15	0.8	1.2	\$888	\$135	\$541	\$1,565	\$532	\$1,154	\$7	\$220	\$1,913
	PY16	0.8	1.3	\$823	\$129	\$524	\$1,475	\$517	\$1,141	\$7	\$209	\$1,874
	PY17	0.8	1.3	\$755	\$123	\$542	\$1,420	\$502	\$1,128	\$7	\$199	\$1,836
Energy Efficient Homes Program Total	0.9	1.2	\$4,462	\$678	\$2,720	\$7,860	\$2,664	\$5,779	\$37	\$1,102	\$9,582	
<i>Low Income Energy Efficiency Program</i>	PY13	1.0	0.5	\$664	\$15	\$352	\$1,031	\$131	\$327	\$0	\$12	\$470
	PY14	1.0	0.5	\$618	\$14	\$309	\$941	\$127	\$321	\$0	\$11	\$460
	PY15	1.0	0.5	\$575	\$13	\$299	\$887	\$123	\$317	\$0	\$10	\$451
	PY16	1.0	0.5	\$534	\$13	\$292	\$839	\$120	\$313	\$0	\$10	\$444
	PY17	1.0	0.6	\$496	\$12	\$284	\$792	\$116	\$310	\$0	\$9	\$436
Low Income Energy Efficiency Program Total	1.0	0.5	\$2,887	\$66	\$1,536	\$4,489	\$617	\$1,588	\$2	\$53	\$2,260	
<i>C&I Energy Solutions for Business Program - Small</i>	PY13	0.7	1.2	\$1,054	\$907	\$709	\$2,671	\$878	\$2,059	\$0	\$202	\$3,139
	PY14	0.7	1.2	\$971	\$864	\$692	\$2,527	\$852	\$2,025	\$0	\$192	\$3,069
	PY15	0.7	1.3	\$892	\$823	\$690	\$2,405	\$827	\$1,997	\$0	\$182	\$3,007
	PY16	0.7	1.3	\$817	\$784	\$691	\$2,292	\$804	\$1,973	\$0	\$174	\$2,950
	PY17	0.7	1.3	\$745	\$747	\$690	\$2,182	\$781	\$1,949	\$0	\$165	\$2,895
C&I Energy Solutions for Business Program - Small Total	0.7	1.2	\$4,480	\$4,125	\$3,473	\$12,078	\$4,142	\$10,003	\$0	\$914	\$15,060	
<i>C&I Energy Solutions for Business Program - Large</i>	PY13	0.7	1.3	\$850	\$991	\$649	\$2,490	\$895	\$2,113	\$0	\$185	\$3,192
	PY14	0.7	1.4	\$782	\$944	\$564	\$2,290	\$868	\$2,077	\$0	\$176	\$3,121
	PY15	0.7	1.4	\$718	\$899	\$562	\$2,180	\$843	\$2,048	\$0	\$167	\$3,058
	PY16	0.7	1.4	\$657	\$856	\$563	\$2,077	\$819	\$2,022	\$0	\$159	\$3,000
	PY17	0.7	1.5	\$599	\$816	\$563	\$1,977	\$796	\$1,998	\$0	\$151	\$2,945
C&I Energy Solutions for Business Program - Large Total	0.7	1.4	\$3,607	\$4,507	\$2,901	\$11,015	\$4,220	\$10,258	\$0	\$837	\$15,316	
Total		1.1	\$16,915	\$10,164	\$12,687	\$39,766	\$12,474	\$29,155	\$48	\$3,323	\$44,999	

**Appendix C:
Company Program Tables**

Appendix C, Table 1-1: Program Cost by Program Year

Penn Power Program Year 13

Program	Sub-Program	Incentives (\$000)					Non-Incentives (\$000)						Totals
		Rebates	Upstream/Midstream/Buildout	Kits	Direct Install Materials & Labor	Program Design	Administrative	Delivery Fees	Marketing	EM&V	Other ¹		
Energy Efficient Products Program	Appliance Recycling	\$81	\$0	\$0	\$0	\$10	\$37	\$150	\$41	\$12	\$2	\$334	
	Appliance Rebate	\$158	\$0	\$0	\$0	\$2	\$9	\$45	\$19	\$9	\$0	\$243	
	Consumer Electronics	\$0	\$13	\$0	\$0	\$0	\$1	\$4	\$0	\$1	\$0	\$19	
	HVAC	\$50	\$0	\$0	\$0	\$3	\$12	\$36	\$25	\$5	\$1	\$132	
	Subtotal	\$290	\$13	\$0	\$0	\$16	\$59	\$235	\$85	\$26	\$3	\$727	
Energy Efficient Homes Program	Comprehensive Audits	\$15	\$0	\$0	\$0	\$2	\$7	\$23	\$11	\$2	\$0	\$60	
	Behavioral	\$0	\$0	\$0	\$0	\$10	\$36	\$155	\$9	\$8	\$2	\$220	
	Multi Family - Res	\$0	\$0	\$0	\$6	\$1	\$4	\$16	\$4	\$1	\$0	\$32	
	School Education	\$0	\$0	\$53	\$0	\$2	\$8	\$16	\$26	\$4	\$0	\$109	
	EE Kits	\$0	\$0	\$581	\$0	\$2	\$9	\$30	\$16	\$24	\$0	\$662	
	New Homes	\$375	\$0	\$0	\$0	\$6	\$22	\$99	\$13	\$19	\$1	\$535	
	Subtotal	\$390	\$0	\$634	\$6	\$23	\$85	\$339	\$79	\$58	\$4	\$1,619	
Low Income Energy Efficiency Program	Weatherization	\$0	\$0	\$0	\$347	\$3	\$11	\$53	\$5	\$16	\$1	\$435	
	LI - Appliances	\$26	\$0	\$0	\$0	\$2	\$7	\$30	\$7	\$3	\$0	\$76	
	LI - Behavioral	\$0	\$0	\$0	\$0	\$5	\$18	\$75	\$4	\$4	\$1	\$106	
	LI - School Education	\$0	\$0	\$18	\$0	\$1	\$4	\$7	\$11	\$2	\$0	\$43	
	LI - EE Kits	\$0	\$0	\$24	\$0	\$1	\$2	\$8	\$2	\$1	\$0	\$38	
	LI - Multifamily - Res	\$0	\$0	\$0	\$74	\$2	\$8	\$37	\$12	\$5	\$0	\$138	
	LI - New Homes	\$9	\$0	\$0	\$0	\$0	\$1	\$3	\$0	\$0	\$0	\$14	
Subtotal	\$36	\$0	\$42	\$421	\$14	\$51	\$214	\$41	\$30	\$3	\$850		
Residential Total	\$716	\$13	\$676	\$427	\$52	\$195	\$788	\$205	\$114	\$10	\$3,196		
C&I Energy Solutions for Business Program - Small ²	Multi Family - SCI	\$0	\$0	\$0	\$62	\$3	\$12	\$51	\$8	\$5	\$1	\$142	
	Prescriptive - SCI	\$330	\$76	\$0	\$0	\$8	\$30	\$144	\$11	\$22	\$2	\$623	
	Prescriptive Other - SCI	\$14	\$0	\$0	\$0	\$1	\$2	\$10	\$2	\$1	\$0	\$30	
	Custom - SCI	\$247	\$0	\$0	\$0	\$8	\$30	\$138	\$17	\$16	\$2	\$458	
	Energy Management - SCI	\$18	\$0	\$0	\$307	\$7	\$26	\$121	\$11	\$18	\$1	\$511	
	Subtotal	\$610	\$76	\$0	\$369	\$27	\$100	\$464	\$50	\$63	\$5	\$1,764	
Small Commercial & Industrial Total	\$610	\$76	\$0	\$369	\$27	\$100	\$464	\$50	\$63	\$5	\$1,764		
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Prescriptive - LCI	\$280	\$76	\$0	\$0	\$6	\$24	\$115	\$9	\$19	\$1	\$531	
	Prescriptive Other - LCI	\$7	\$0	\$0	\$0	\$0	\$1	\$3	\$1	\$0	\$0	\$12	
	Custom - LCI	\$293	\$0	\$0	\$0	\$13	\$50	\$235	\$20	\$23	\$3	\$636	
	Energy Management - LCI	\$71	\$0	\$0	\$124	\$5	\$18	\$85	\$6	\$11	\$1	\$320	
	Subtotal	\$650	\$76	\$0	\$124	\$25	\$92	\$437	\$36	\$53	\$5	\$1,499	
Large Commercial & Industrial Total	\$650	\$76	\$0	\$124	\$25	\$92	\$437	\$36	\$53	\$5	\$1,499		
Non-Residential Total	\$1,260	\$152	\$0	\$493	\$52	\$193	\$901	\$86	\$116	\$10	\$3,262		
Total	\$1,976	\$164	\$676	\$920	\$104	\$388	\$1,690	\$291	\$230	\$20	\$6,458		

¹ External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix C, Table 1-2: Program Cost by Program Year

Penn Power Program Year 14

Program	Sub-Program	Incentives (\$000)					Non-Incentives (\$000)						Totals
		Rebates	Upstream/Midstream/Buildout	Kits	Direct Install Materials & Labor	Program Design	Administrative	CSP Delivery Fees	Marketing	EM&V	Other ¹		
Energy Efficient Products Program	Appliance Recycling	\$81	\$0	\$0	\$0	\$11	\$30	\$147	\$42	\$12	\$0	\$323	
	Appliance Rebate	\$158	\$0	\$0	\$0	\$3	\$8	\$45	\$19	\$9	\$0	\$241	
	Consumer Electronics	\$0	\$13	\$0	\$0	\$0	\$1	\$4	\$0	\$1	\$0	\$19	
	HVAC	\$50	\$0	\$0	\$0	\$3	\$10	\$36	\$25	\$5	\$0	\$129	
	Subtotal	\$290	\$13	\$0	\$0	\$17	\$48	\$233	\$86	\$25	\$0	\$712	
Energy Efficient Homes Program	Comprehensive Audits	\$30	\$0	\$0	\$0	\$3	\$8	\$38	\$12	\$3	\$0	\$95	
	Behavioral	\$0	\$0	\$0	\$0	\$9	\$27	\$141	\$9	\$7	\$0	\$194	
	Multi Family - Res	\$0	\$0	\$0	\$11	\$1	\$3	\$17	\$4	\$1	\$0	\$37	
	School Education	\$0	\$0	\$53	\$0	\$2	\$5	\$8	\$25	\$3	\$0	\$97	
	EE Kits	\$0	\$0	\$581	\$0	\$1	\$4	\$10	\$15	\$23	\$0	\$634	
	New Homes	\$375	\$0	\$0	\$0	\$6	\$16	\$89	\$13	\$18	\$0	\$518	
	Subtotal	\$405	\$0	\$634	\$11	\$22	\$64	\$304	\$79	\$56	\$0	\$1,574	
Low Income Energy Efficiency Program	Weatherization	\$0	\$0	\$0	\$347	\$3	\$8	\$50	\$5	\$15	\$0	\$429	
	LI - Appliances	\$26	\$0	\$0	\$0	\$2	\$5	\$27	\$7	\$2	\$0	\$70	
	LI - Behavioral	\$0	\$0	\$0	\$0	\$5	\$13	\$68	\$4	\$3	\$0	\$92	
	LI - School Education	\$0	\$0	\$18	\$0	\$1	\$3	\$4	\$11	\$1	\$0	\$37	
	LI - EE Kits	\$0	\$0	\$24	\$0	\$0	\$1	\$6	\$2	\$1	\$0	\$34	
	LI - Multifamily - Res	\$0	\$0	\$0	\$74	\$2	\$6	\$33	\$12	\$5	\$0	\$132	
	LI - New Homes	\$9	\$0	\$0	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$13	
Subtotal	\$36	\$0	\$42	\$421	\$13	\$37	\$190	\$40	\$29	\$0	\$808		
Residential Total	\$731	\$13	\$676	\$431	\$52	\$149	\$726	\$205	\$110	\$0	\$3,093		
C&I Energy Solutions for Business Program - Small ²	Multi Family - SCI	\$0	\$0	\$0	\$66	\$3	\$9	\$49	\$8	\$5	\$0	\$142	
	Prescriptive - SCI	\$330	\$76	\$0	\$0	\$8	\$22	\$124	\$11	\$21	\$0	\$591	
	Prescriptive Other - SCI	\$14	\$0	\$0	\$0	\$1	\$2	\$9	\$2	\$1	\$0	\$29	
	Custom - SCI	\$247	\$0	\$0	\$0	\$8	\$22	\$121	\$17	\$15	\$0	\$430	
	Energy Management - SCI	\$37	\$0	\$0	\$614	\$9	\$27	\$153	\$13	\$32	\$0	\$884	
	Subtotal	\$628	\$76	\$0	\$680	\$28	\$81	\$457	\$51	\$74	\$0	\$2,076	
Small Commercial & Industrial Total	\$628	\$76	\$0	\$680	\$28	\$81	\$457	\$51	\$74	\$0	\$2,076		
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Prescriptive - LCI	\$280	\$76	\$0	\$0	\$6	\$17	\$100	\$8	\$18	\$0	\$505	
	Prescriptive Other - LCI	\$7	\$0	\$0	\$0	\$0	\$0	\$2	\$1	\$0	\$0	\$10	
	Custom - LCI	\$293	\$0	\$0	\$0	\$11	\$32	\$181	\$19	\$20	\$0	\$555	
	Energy Management - LCI	\$79	\$0	\$0	\$247	\$6	\$17	\$101	\$7	\$17	\$0	\$475	
	Subtotal	\$659	\$76	\$0	\$247	\$23	\$67	\$383	\$35	\$55	\$0	\$1,546	
Large Commercial & Industrial Total	\$659	\$76	\$0	\$247	\$23	\$67	\$383	\$35	\$55	\$0	\$1,546		
Non-Residential Total	\$1,287	\$152	\$0	\$928	\$52	\$148	\$840	\$86	\$129	\$0	\$3,622		
Total	\$2,018	\$164	\$676	\$1,359	\$104	\$297	\$1,566	\$291	\$240	\$0	\$6,715		

¹ External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix C, Table 1-3: Program Cost by Program Year

Penn Power Program Year 15

Program	Sub-Program	Incentives (\$000)					Non-Incentives (\$000)						Totals
		Rebates	Upstream/Midstream/Buildout	Kits	Direct Install Materials & Labor	Program Design	Administrative	CSP Delivery Fees	Marketing	EM&V	Other ¹		
Energy Efficient Products Program	Appliance Recycling	\$81	\$0	\$0	\$0	\$11	\$30	\$147	\$42	\$11	\$0	\$322	
	Appliance Rebate	\$158	\$0	\$0	\$0	\$3	\$7	\$45	\$19	\$9	\$0	\$241	
	Consumer Electronics	\$0	\$13	\$0	\$0	\$0	\$1	\$4	\$0	\$1	\$0	\$19	
	HVAC	\$50	\$0	\$0	\$0	\$3	\$10	\$36	\$25	\$5	\$0	\$129	
	Subtotal	\$290	\$13	\$0	\$0	\$17	\$47	\$233	\$86	\$25	\$0	\$710	
Energy Efficient Homes Program	Comprehensive Audits	\$30	\$0	\$0	\$0	\$3	\$8	\$38	\$12	\$3	\$0	\$94	
	Behavioral	\$0	\$0	\$0	\$0	\$10	\$29	\$155	\$10	\$8	\$0	\$211	
	Multi Family - Res	\$0	\$0	\$0	\$11	\$1	\$3	\$17	\$4	\$1	\$0	\$37	
	School Education	\$0	\$0	\$53	\$0	\$2	\$5	\$8	\$25	\$3	\$0	\$96	
	EE Kits	\$0	\$0	\$581	\$0	\$1	\$4	\$10	\$15	\$23	\$0	\$633	
	New Homes	\$375	\$0	\$0	\$0	\$6	\$16	\$89	\$13	\$18	\$0	\$518	
	Subtotal	\$405	\$0	\$634	\$11	\$23	\$65	\$317	\$79	\$57	\$0	\$1,591	
Low Income Energy Efficiency Program	Weatherization	\$0	\$0	\$0	\$347	\$3	\$8	\$50	\$5	\$15	\$0	\$429	
	LI - Appliances	\$26	\$0	\$0	\$0	\$2	\$5	\$27	\$7	\$2	\$0	\$70	
	LI - Behavioral	\$0	\$0	\$0	\$0	\$4	\$11	\$61	\$3	\$3	\$0	\$82	
	LI - School Education	\$0	\$0	\$18	\$0	\$1	\$3	\$4	\$11	\$1	\$0	\$37	
	LI - EE Kits	\$0	\$0	\$24	\$0	\$0	\$1	\$6	\$2	\$1	\$0	\$34	
	LI - Multifamily - Res	\$0	\$0	\$0	\$74	\$2	\$6	\$33	\$12	\$5	\$0	\$132	
	LI - New Homes	\$9	\$0	\$0	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$13	
Subtotal	\$36	\$0	\$42	\$421	\$13	\$35	\$183	\$40	\$28	\$0	\$797		
Residential Total	\$731	\$13	\$676	\$431	\$52	\$147	\$733	\$205	\$111	\$0	\$3,098		
C&I Energy Solutions for Business Program - Small ²	Multi Family - SCI	\$0	\$0	\$0	\$66	\$3	\$9	\$49	\$8	\$5	\$0	\$141	
	Prescriptive - SCI	\$330	\$76	\$0	\$0	\$8	\$21	\$124	\$11	\$21	\$0	\$590	
	Prescriptive Other - SCI	\$14	\$0	\$0	\$0	\$1	\$2	\$9	\$2	\$1	\$0	\$29	
	Custom - SCI	\$247	\$0	\$0	\$0	\$8	\$22	\$121	\$17	\$15	\$0	\$430	
	Energy Management - SCI	\$37	\$0	\$0	\$614	\$9	\$26	\$153	\$13	\$32	\$0	\$884	
	Subtotal	\$628	\$76	\$0	\$680	\$28	\$80	\$457	\$51	\$74	\$0	\$2,074	
Small Commercial & Industrial Total	\$628	\$76	\$0	\$680	\$28	\$80	\$457	\$51	\$74	\$0	\$2,074		
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Prescriptive - LCI	\$280	\$76	\$0	\$0	\$6	\$17	\$100	\$8	\$18	\$0	\$505	
	Prescriptive Other - LCI	\$7	\$0	\$0	\$0	\$0	\$0	\$2	\$1	\$0	\$0	\$10	
	Custom - LCI	\$293	\$0	\$0	\$0	\$11	\$31	\$181	\$19	\$20	\$0	\$554	
	Energy Management - LCI	\$79	\$0	\$0	\$247	\$6	\$17	\$101	\$7	\$17	\$0	\$475	
	Subtotal	\$659	\$76	\$0	\$247	\$23	\$66	\$383	\$35	\$55	\$0	\$1,544	
Large Commercial & Industrial Total	\$659	\$76	\$0	\$247	\$23	\$66	\$383	\$35	\$55	\$0	\$1,544		
Non-Residential Total	\$1,287	\$152	\$0	\$928	\$52	\$145	\$840	\$86	\$129	\$0	\$3,618		
Total	\$2,018	\$164	\$676	\$1,359	\$104	\$292	\$1,573	\$291	\$240	\$0	\$6,716		

¹ External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix C, Table 1-4: Program Cost by Program Year

Penn Power Program Year 16

Program	Sub-Program	Incentives (\$000)					Non-Incentives (\$000)						Totals
		Rebates	Upstream/Midstream/Buydown	Kits	Direct Install Materials & Labor	Program Design	Administrative	CSP Delivery Fees	Marketing	EM&V	Other ¹		
Energy Efficient Products Program	Appliance Recycling	\$81	\$0	\$0	\$0	\$11	\$30	\$147	\$42	\$12	\$0	\$322	
	Appliance Rebate	\$158	\$0	\$0	\$0	\$3	\$7	\$45	\$19	\$9	\$0	\$241	
	Consumer Electronics	\$0	\$13	\$0	\$0	\$0	\$1	\$4	\$0	\$1	\$0	\$19	
	HVAC	\$50	\$0	\$0	\$0	\$3	\$10	\$36	\$25	\$5	\$0	\$129	
	Subtotal	\$290	\$13	\$0	\$0	\$17	\$48	\$233	\$86	\$25	\$0	\$711	
Energy Efficient Homes Program	Comprehensive Audits	\$30	\$0	\$0	\$0	\$3	\$8	\$38	\$12	\$3	\$0	\$94	
	Behavioral	\$0	\$0	\$0	\$0	\$10	\$27	\$141	\$9	\$7	\$0	\$194	
	Multi Family - Res	\$0	\$0	\$0	\$11	\$1	\$3	\$17	\$4	\$1	\$0	\$37	
	School Education	\$0	\$0	\$53	\$0	\$2	\$5	\$8	\$25	\$3	\$0	\$97	
	EE Kits	\$0	\$0	\$581	\$0	\$1	\$4	\$10	\$15	\$23	\$0	\$634	
	New Homes	\$375	\$0	\$0	\$0	\$6	\$16	\$89	\$13	\$18	\$0	\$518	
	Subtotal	\$405	\$0	\$634	\$11	\$22	\$63	\$304	\$79	\$56	\$0	\$1,574	
Low Income Energy Efficiency Program	Weatherization	\$0	\$0	\$0	\$347	\$3	\$8	\$50	\$5	\$15	\$0	\$429	
	LI - Appliances	\$26	\$0	\$0	\$0	\$2	\$5	\$27	\$7	\$2	\$0	\$70	
	LI - Behavioral	\$0	\$0	\$0	\$0	\$4	\$10	\$55	\$3	\$3	\$0	\$75	
	LI - School Education	\$0	\$0	\$18	\$0	\$1	\$3	\$4	\$11	\$1	\$0	\$37	
	LI - EE Kits	\$0	\$0	\$24	\$0	\$0	\$1	\$6	\$2	\$1	\$0	\$34	
	LI - Multifamily - Res	\$0	\$0	\$0	\$74	\$2	\$6	\$33	\$12	\$5	\$0	\$132	
	LI - New Homes	\$9	\$0	\$0	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$13	
Subtotal	\$36	\$0	\$42	\$421	\$12	\$34	\$177	\$40	\$28	\$0	\$790		
Residential Total	\$731	\$13	\$676	\$431	\$52	\$145	\$714	\$204	\$110	\$0	\$3,075		
C&I Energy Solutions for Business Program - Small ²	Multi Family - SCI	\$0	\$0	\$0	\$66	\$3	\$9	\$49	\$8	\$5	\$0	\$141	
	Prescriptive - SCI	\$330	\$76	\$0	\$0	\$8	\$21	\$124	\$11	\$21	\$0	\$591	
	Prescriptive Other - SCI	\$14	\$0	\$0	\$0	\$1	\$2	\$9	\$2	\$1	\$0	\$29	
	Custom - SCI	\$247	\$0	\$0	\$0	\$8	\$22	\$121	\$17	\$15	\$0	\$430	
	Energy Management - SCI	\$37	\$0	\$0	\$614	\$9	\$26	\$153	\$13	\$32	\$0	\$884	
	Subtotal	\$628	\$76	\$0	\$680	\$29	\$80	\$457	\$52	\$74	\$0	\$2,075	
Small Commercial & Industrial Total	\$628	\$76	\$0	\$680	\$29	\$80	\$457	\$52	\$74	\$0	\$2,075		
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Prescriptive - LCI	\$280	\$76	\$0	\$0	\$6	\$17	\$100	\$8	\$18	\$0	\$505	
	Prescriptive Other - LCI	\$7	\$0	\$0	\$0	\$0	\$0	\$2	\$1	\$0	\$0	\$10	
	Custom - LCI	\$293	\$0	\$0	\$0	\$11	\$32	\$181	\$19	\$20	\$0	\$555	
	Energy Management - LCI	\$79	\$0	\$0	\$247	\$6	\$17	\$101	\$7	\$17	\$0	\$475	
	Subtotal	\$659	\$76	\$0	\$247	\$24	\$66	\$383	\$35	\$55	\$0	\$1,545	
Large Commercial & Industrial Total	\$659	\$76	\$0	\$247	\$24	\$66	\$383	\$35	\$55	\$0	\$1,545		
Non-Residential Total	\$1,287	\$152	\$0	\$928	\$52	\$147	\$840	\$87	\$129	\$0	\$3,621		
Total	\$2,018	\$164	\$676	\$1,359	\$104	\$292	\$1,554	\$291	\$239	\$0	\$6,696		

¹ External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix C, Table 1-5: Program Cost by Program Year

Penn Power Program Year 17

Program	Sub-Program	Incentives (\$000)					Non-Incentives (\$000)						Totals
		Rebates	Upstream/Midstream/Buildout	Kits	Direct Install Materials & Labor	Program Design	Administrative	CSP Delivery Fees	Marketing	EM&V	Other ¹		
Energy Efficient Products Program	Appliance Recycling	\$81	\$0	\$0	\$0	\$11	\$30	\$147	\$42	\$11	\$0	\$322	
	Appliance Rebate	\$158	\$0	\$0	\$0	\$3	\$7	\$45	\$19	\$9	\$0	\$241	
	Consumer Electronics	\$0	\$13	\$0	\$0	\$0	\$1	\$4	\$0	\$1	\$0	\$19	
	HVAC	\$50	\$0	\$0	\$0	\$3	\$10	\$36	\$25	\$5	\$0	\$129	
	Subtotal	\$290	\$13	\$0	\$0	\$17	\$47	\$233	\$86	\$25	\$0	\$711	
Energy Efficient Homes Program	Comprehensive Audits	\$30	\$0	\$0	\$0	\$3	\$8	\$38	\$12	\$3	\$0	\$94	
	Behavioral	\$0	\$0	\$0	\$0	\$10	\$29	\$155	\$10	\$8	\$0	\$212	
	Multi Family - Res	\$0	\$0	\$0	\$11	\$1	\$3	\$17	\$4	\$1	\$0	\$37	
	School Education	\$0	\$0	\$53	\$0	\$2	\$5	\$8	\$25	\$3	\$0	\$97	
	EE Kits	\$0	\$0	\$581	\$0	\$1	\$4	\$10	\$15	\$23	\$0	\$634	
	New Homes	\$375	\$0	\$0	\$0	\$6	\$16	\$89	\$13	\$18	\$0	\$518	
	Subtotal	\$405	\$0	\$634	\$11	\$23	\$65	\$317	\$79	\$57	\$0	\$1,591	
Low Income Energy Efficiency Program	Weatherization	\$0	\$0	\$0	\$347	\$3	\$8	\$50	\$5	\$15	\$0	\$429	
	LI - Appliances	\$26	\$0	\$0	\$0	\$2	\$5	\$27	\$7	\$2	\$0	\$70	
	LI - Behavioral	\$0	\$0	\$0	\$0	\$3	\$9	\$50	\$3	\$2	\$0	\$67	
	LI - School Education	\$0	\$0	\$18	\$0	\$1	\$3	\$4	\$11	\$1	\$0	\$37	
	LI - EE Kits	\$0	\$0	\$24	\$0	\$0	\$1	\$6	\$2	\$1	\$0	\$34	
	LI - Multifamily - Res	\$0	\$0	\$0	\$74	\$2	\$6	\$33	\$12	\$5	\$0	\$132	
	LI - New Homes	\$9	\$0	\$0	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$13	
Subtotal	\$36	\$0	\$42	\$421	\$12	\$33	\$172	\$39	\$28	\$0	\$782		
Residential Total	\$731	\$13	\$676	\$431	\$52	\$145	\$722	\$205	\$110	\$0	\$3,084		
C&I Energy Solutions for Business Program - Small ²	Multi Family - SCI	\$0	\$0	\$0	\$66	\$3	\$9	\$49	\$8	\$5	\$0	\$141	
	Prescriptive - SCI	\$330	\$76	\$0	\$0	\$8	\$21	\$124	\$11	\$21	\$0	\$590	
	Prescriptive Other - SCI	\$14	\$0	\$0	\$0	\$1	\$2	\$9	\$2	\$1	\$0	\$29	
	Custom - SCI	\$247	\$0	\$0	\$0	\$8	\$22	\$121	\$17	\$15	\$0	\$430	
	Energy Management - SCI	\$37	\$0	\$0	\$614	\$9	\$26	\$153	\$13	\$32	\$0	\$884	
	Subtotal	\$628	\$76	\$0	\$680	\$29	\$80	\$457	\$51	\$74	\$0	\$2,074	
Small Commercial & Industrial Total	\$628	\$76	\$0	\$680	\$29	\$80	\$457	\$51	\$74	\$0	\$2,074		
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Prescriptive - LCI	\$280	\$76	\$0	\$0	\$6	\$17	\$100	\$8	\$18	\$0	\$505	
	Prescriptive Other - LCI	\$7	\$0	\$0	\$0	\$0	\$0	\$2	\$1	\$0	\$0	\$10	
	Custom - LCI	\$293	\$0	\$0	\$0	\$11	\$31	\$181	\$19	\$20	\$0	\$554	
	Energy Management - LCI	\$79	\$0	\$0	\$247	\$6	\$17	\$101	\$7	\$17	\$0	\$475	
	Subtotal	\$659	\$76	\$0	\$247	\$23	\$66	\$383	\$35	\$55	\$0	\$1,545	
Large Commercial & Industrial Total	\$659	\$76	\$0	\$247	\$23	\$66	\$383	\$35	\$55	\$0	\$1,545		
Non-Residential Total	\$1,287	\$152	\$0	\$928	\$52	\$145	\$840	\$87	\$129	\$0	\$3,619		
Total	\$2,018	\$164	\$676	\$1,359	\$104	\$291	\$1,562	\$291	\$239	\$0	\$6,703		

¹ External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix C, Table 2: Program Savings by Program Year

Penn Power		PY13		PY14		PY15		PY16		PY17		Total	
Program	Sub-Program	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW
Energy Efficient Products Program	Appliance Recycling	1,176,553	274	1,176,553	274	1,176,553	274	1,176,553	274	1,176,553	274	5,882,765	1,369
	Appliance Rebate	891,936	204	891,936	204	891,936	204	891,936	204	891,936	204	4,459,682	1,019
	Consumer Electronics	145,103	146	145,103	146	145,103	146	145,103	146	145,103	146	725,513	728
	HVAC	267,575	23	267,575	23	267,575	23	267,575	23	267,575	23	1,337,873	115
	Subtotal	2,481,167	646	2,481,167	646	2,481,167	646	2,481,167	646	2,481,167	646	12,405,833	3,231
Energy Efficient Homes Program	Comprehensive Audits	26,322	12	52,643	25	52,643	25	52,643	25	52,643	25	236,894	112
	Behavioral	1,123,600	202	1,497,700	270	1,001,800	180	1,358,500	245	836,500	149	5,818,100	1,046
	Multi Family - Res	37,262	10	64,427	18	64,427	18	64,427	18	64,427	18	294,970	82
	School Education	277,832	33	277,832	33	277,832	33	277,832	33	277,832	33	1,389,159	165
	EE Kits	2,786,000	329	2,786,000	329	2,786,000	329	2,786,000	329	2,786,000	329	13,930,000	1,644
	New Homes	966,657	415	966,657	415	966,657	415	966,657	415	966,657	415	4,833,283	2,075
	Subtotal	5,217,672	1,002	5,645,259	1,090	5,149,359	999	5,506,059	1,064	4,984,059	969	26,502,407	5,124
Low Income Energy Efficiency Program	Weatherization	379,461	34	379,461	34	379,461	34	379,461	34	379,461	34	1,897,303	171
	LI - Appliances	176,021	36	176,021	36	176,021	36	176,021	36	176,021	36	880,106	181
	LI - Behavioral	522,930	95	749,130	136	749,130	136	696,930	127	636,030	116	3,354,150	611
	LI - School Education	78,044	10	78,044	10	78,044	10	78,044	10	78,044	10	390,218	52
	LI - EE Kits	103,500	13	103,500	13	103,500	13	103,500	13	103,500	13	517,500	65
	LI - Multifamily - Res	138,521	51	138,521	51	138,521	51	138,521	51	138,521	51	692,605	257
	LI - New Homes	19,784	8	19,784	8	19,784	8	19,784	8	19,784	8	98,920	38
	Subtotal	1,418,260	248	1,644,460	289	1,644,460	289	1,592,260	280	1,531,360	269	7,830,801	1,376
Residential Total		9,117,098	1,896	9,770,886	2,025	9,274,986	1,935	9,579,486	1,990	8,996,586	1,884	46,739,041	9,730
C&I Energy Solutions for Business Program - Small ¹	Multi Family - SCI	62,748	10	76,714	12	76,714	12	76,714	12	76,714	12	369,602	56
	Prescriptive - SCI	4,334,048	957	4,334,048	957	4,334,048	957	4,334,048	957	4,334,048	957	21,670,240	4,786
	Prescriptive Other - SCI	113,233	18	113,233	18	113,233	18	113,233	18	113,233	18	566,166	91
	Custom - SCI	1,830,668	300	1,830,668	300	1,830,668	300	1,830,668	300	1,830,668	300	9,153,341	1,500
	Energy Management - SCI	1,113,325	138	2,226,651	276	2,226,651	276	2,226,651	276	2,226,651	276	10,019,928	1,242
	Subtotal	7,454,022	1,423	8,581,314	1,563	8,581,314	1,563	8,581,314	1,563	8,581,314	1,563	41,779,277	7,676
Small Commercial & Industrial Total		7,454,022	1,423	8,581,314	1,563	8,581,314	1,563	8,581,314	1,563	8,581,314	1,563	41,779,277	7,676
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	0	0	0	0	0	0	0	0	0	0	0	0
	Prescriptive - LCI	3,863,851	724	3,863,851	724	3,863,851	724	3,863,851	724	3,863,851	724	19,319,254	3,620
	Prescriptive Other - LCI	24,307	4	24,307	4	24,307	4	24,307	4	24,307	4	121,535	20
	Custom - LCI	2,726,591	410	2,726,591	410	2,726,591	410	2,726,591	410	2,726,591	410	13,632,956	2,048
	Energy Management - LCI	1,105,358	252	1,591,145	354	1,591,145	354	1,591,145	354	1,591,145	354	7,469,940	1,670
	Subtotal	7,720,107	1,390	8,205,894	1,492	8,205,894	1,492	8,205,894	1,492	8,205,894	1,492	40,543,685	7,359
Large Commercial & Industrial Total		7,720,107	1,390	8,205,894	1,492	8,205,894	1,492	8,205,894	1,492	8,205,894	1,492	40,543,685	7,359
Non-Residential Total		15,474,130	2,813	16,787,208	3,055	16,787,208	3,055	16,787,208	3,055	16,787,208	3,055	82,322,962	15,034
Total		24,291,228	4,709	26,558,094	5,081	26,062,194	4,990	26,366,694	5,046	25,783,794	4,939	129,062,003	24,765

¹ Includes projected participation of Low Income households living in Multifamily housing.

Appendix C: Table 3, Energy Efficiency as a Resource - Penn Power

EE&C Plan Phase	EE Installation Period	EE Plan Potential MW Range	DY 23/24 MW Range	DY 24/25 MW Range	DY 25/26 EE MW Range	DY 26/27 EE MW Range	DY 27/28 MW Range	DY 28/29 EE MW Range	DY 29/30 EE MW Range
IV	21/22	0.8 to 1.2	0.8 to 1.2	0.8 to 1.2	0.8 to 1.2	n/a	n/a	n/a	n/a
	22/23	0.8 to 1.2	0.8 to 1.2	0.8 to 1.2	0.8 to 1.2	0.8 to 1.2	n/a	n/a	n/a
	23/24	0.8 to 1.2	n/a	0.8 to 1.2	0.8 to 1.2	0.8 to 1.2	0.8 to 1.2	n/a	n/a
	24/25	0.8 to 1.2	n/a	n/a	0.8 to 1.2	0.8 to 1.2	0.8 to 1.2	0.8 to 1.2	n/a
	25/26	0.8 to 1.2	n/a	n/a	n/a	0.8 to 1.2	0.8 to 1.2	0.8 to 1.2	0.8 to 1.2
EE MW Ranges		4.0 to 6.0	1.6 to 2.0	2.4 to 3.6	3.2 to 4.8	3.2 to 4.8	2.4 to 3.6	1.6 to 2.0	0.8 to 1.2

¹ The MW values provided in Appendix C, Table C-3 are an estimated range of the EE&C Plan Potential PJM EE MW values for each installation period and do not represent the actual EE values to be offered into PJM's capacity market. These estimates are based on projections used in the development of the EE&C Plan, with adjustment for the addition of line losses, eliminating non-PJM eligible measures, and Company experience with PJM EE evaluations. These estimates are presented for information purposes only and are subject to change for reasons, including but not limited to, changes in program participation, baselines, measurement and verification protocols or costs and PJM rules. The Company will determine the actual EE Resource offers applicable to each PJM auction starting with the 2023/24 BRA scheduled to occur December 2021.

**Appendix D:
Calculation Methods and Assumptions**

Appendix D, Table 1: Costs Assumptions

Cost Assumptions

Program cost elements are categorized into specific costs and common costs. Specific costs include program direct administrative and incentive costs, including: 1) Incentives, Delivery, Marketing provided by CSPs, and Evaluation, Measurement and Verification (EM&V). Specific costs are calculated based on measure, subprogram and or program level estimates, and summed to the subprogram and program level. Common costs include portfolio administrative costs, including: 1) Program Design, 2) Administration, 3) Marketing provided by the utility, and 4) Other. Common costs are estimated at the State level and allocated to the Company based on the Company's savings and targets, and allocated to each program based on the ratio of program specific administrative costs (CSP Delivery and Marketing costs). The following details the assumptions for each cost element used in the budget tables located throughout the plan:

Cost Elements	Description
Incentives	Incentives includes program specific costs for 1) rebates paid to customers, 2) upstream/midstream buydowns, 3) material cost of giveaways (e.g. kits) and 4) program direct install labor and material cost provided to customers. Incentives were calculated based on measure assumptions and participation projections, and summed to the subprogram and program level.
Program Design	Program Design includes common costs associated with the development of the plan and programs including costs incurred by the utility for employee labor software fees for plan development and research and development related association fees. Program Design costs were based on actual costs or Company estimates.
Administration	Administration costs includes common costs incurred by the utility for employee labor and expenses to oversee, administer and manage the portfolio, costs to develop and maintain a data collection, tracking and reporting system, and to perform duties associated with activities such as regulatory reporting or meetings to support the plan (e.g. Stakeholder meetings, Program Evaluation Group meetings). Administration costs were estimated based on actual costs or Company estimates.
Delivery	Delivery costs includes program specific costs for implementation of the programs or subprograms. Program Delivery costs were identified by two components, (1) fixed program/sub-program, and (2) variable unit cost. Includes costs for the management and implementation of programs or subprograms, including staffing, websites, data collection and transfers, call centers, incentive processing, quality assurances and control processes, and other activities supporting successful program implementation. Program Delivery costs were informed by experience for similar programs operated by the Company or Company affiliates in Pennsylvania or other jurisdictions, or by vendor proposals or actual costs. These costs were estimated for each subprogram based on measure participation where applicable, and summed to the program level.
Marketing	Marketing costs includes common costs incurred by the utility and program specific costs incurred by CSPs for marketing the plan, programs and subprograms. Marketing costs were informed by Company estimates of utility and CSP pricing for the plan, program or subprograms. Utility marketing was based on estimated annual costs. CSP marketing costs were identified by two components, (1) fixed program/sub-program and (2) variable unit cost. Includes costs associated with developing and providing marketing/promotional strategies, advertising space and materials.
EM&V	EM&V costs includes program specific costs for EM&V of the program and subprograms. EM&V costs are based on CSP contract pricing. Includes costs for evaluation, measurement and verification activities performed by the Company's independent third-party evaluator. These funds are spent on evaluation, surveys, M&V processes, data transfer responsibilities and participation in evaluation and working group meetings.
Other	Other costs includes other outside services common costs associated with the development and regulatory review process of the plan, including third-party consulting and outside legal fees. Other costs were based on Company estimates.

Appendix D, Table 2: Measure Assumptions¹

Penn Power																	
Program	Sub-Program	Measure	Measure Life	Verified kWh	Verified kW	NTG	RR kWh	RR kW	Incremental Cost	Modeled Rebate	O&M Benefit (\$/Unit/Yr)	Gas Savings (MMBTU/Yr)	Water Savings (Gal/Yr)	Savings Assumption	Savings Source	Incremental Cost Source	
Energy Efficient Products Program	Appliance Recycling	Freezer Recycling	5	691	0.112	0.47	1.00	1.00	\$0	\$58	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Refrigerator Recycling	6	944	0.152	0.47	1.00	1.00	\$0	\$58	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Room Air Conditioner Recycling	4	113	0.324	0.47	1.00	1.00	\$0	\$35	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
	Appliance Rebate	Dehumidifier Recycling	4	500	0.173	0.47	1.00	1.00	\$0	\$35	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Clothes Washer - Level 1	11	117	0.012	0.50	1.15	1.09	\$187	\$25	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB	
		Clothes Washer - Level 2	11	166	0.017	0.50	1.15	1.09	\$187	\$25	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB	
		Clothes Washer - Level 3	11	178	0.019	0.50	1.15	1.09	\$187	\$25	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB	
		Refrigerator - Level 1	14	46	0.008	0.50	1.15	1.09	\$75	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Refrigerator - Level 2	14	89	0.014	0.50	1.15	1.09	\$75	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Refrigerator - Level 3	14	118	0.018	0.50	1.15	1.09	\$75	\$75	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Freezer	11	36	0.006	0.50	1.15	1.09	\$43	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Clothes Dryer	12	19	0.002	0.50	1.15	1.09	\$358	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Air Purifier / Cleaner	9	785	0.085	0.50	1.15	1.09	\$74	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Room Air Conditioner - Level 1	9	20	0.039	0.50	1.15	1.09	\$65	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Room Air Conditioner - Level 2	9	20	0.039	0.50	1.15	1.09	\$65	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Dehumidifier	12	240	0.056	0.50	1.15	1.09	\$11	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Water Heater	10	1,453	0.096	0.50	1.15	1.09	\$651	\$500	\$0.00	0.000	0	1-50 gal unit	PA TRM	PA IC DB	
		Pool Pump Variable Speed	10	1,620	0.388	0.50	1.15	1.09	\$421	\$300	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Dishwasher	10	26	0.003	0.50	1.15	1.09	\$316	\$25	\$0.00	0.000	210	1 unit	PA TRM	PA IC DB	
		Water Cooler	10	235	0.025	0.50	1.15	1.09	\$49	\$25	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB	
		EV Charging Cord - Level 2 - Res	10	36	0.004	0.50	1.15	1.09	\$500	\$50	\$0.00	0.000	0	1 Unit	Energy Star	Co Assumption	
		Smart Thermostat - Alpicns	11	230	0.000	0.50	1.15	1.09	\$140	\$50	\$0.00	0.000	0	1 Unit controlling 2.5 Ton CAC	PA TRM	PA IC DB	
		Residential Occupancy Sensor	10	33	0.000	0.50	1.15	1.09	\$36	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Ceiling Fan	15	47	0.012	0.50	1.15	1.09	\$15	\$35	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB	
		Monitor	4	27	0.004	0.58	1.14	1.14	\$4	\$3	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB	
		Computer	4	136	0.018	0.58	1.14	1.14	\$21	\$5	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB	
		Imaging	6	41	0.006	0.58	1.14	1.14	\$14	\$5	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Smart Strip Plug Outlet	5	131	0.015	0.58	1.14	1.14	\$3	\$3	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		TV	6	87	0.239	0.58	1.14	1.14	\$3	\$5	\$0.00	0.000	0	1 unit	MA TRM	MA TRM	
		Sound Bar	7	30	0.001	0.58	1.14	1.14	\$5	\$10	\$0.00	0.000	0	1 Unit	MA TRM	MA TRM	
		Smart Home	15	5	0.001	0.58	1.14	1.14	\$14	\$5	\$0.00	0.000	0	1 lamp	MA TRM	MA TRM	
		HVAC	Heat Pump - Level 2	15	2,848	0.088	0.52	1.10	1.15	\$508	\$250	\$0.00	0.000	0	1- 2.75 ton unit	PA TRM	PA IC DB
			Heat Pump - Level 3	15	3,507	0.088	0.52	1.10	1.15	\$1,423	\$500	\$0.00	0.000	0	1- 2.75 ton unit	PA TRM	PA IC DB
			Central Air Conditioner - Level 2	15	354	0.198	0.52	1.10	1.15	\$1,059	\$200	\$0.00	0.000	0	1-2.75 Ton Unit	PA TRM	PA IC DB
			Central Air Conditioner - Level 3	15	496	0.198	0.52	1.10	1.15	\$1,059	\$200	\$0.00	0.000	0	1-2.75 Ton Unit	PA TRM	PA IC DB
			Ductless Mini-Split Heat Pump - Level 3	15	637	0.086	0.52	1.10	1.15	\$498	\$200	\$0.00	0.000	0	1- 1.5 ton unit	PA TRM	PA IC DB
			PTAC - Level 2 - Multi Family	15	204	0.136	0.52	1.10	1.15	\$454	\$150	\$0.00	0.000	0	1-1.25 Ton Unit	PA TRM	PA IC DB
			PTHP - Level 2 - Multi Family	15	198	0.053	0.52	1.10	1.15	\$363	\$225	\$0.00	0.000	0	1-1.25 Ton Unit	PA TRM	PA IC DB
			Heat Pump - Water & GeoT - ES Tier 3	15	3,401	0.616	0.52	1.10	1.15	\$10,893	\$650	\$0.00	0.000	0	1- 3 ton Unit	PA TRM	PA IC DB
			Furnace Fan (Retrofit or New to ECM)	15	134	0.048	0.52	1.10	1.15	\$242	\$150	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
	Smart Thermostat - HVAC		11	220	0.000	0.52	1.10	1.15	\$140	\$75	\$0.00	0.000	0	1 Unit controlling 2.5 Ton CAC	PA TRM	PA IC DB	
	HVAC - Custom		3	88	0.014	0.52	1.10	1.15	\$113	\$50	\$0.00	0.000	0	1- 1 Unit	PA TRM	PA IC DB	
	Circulating Pump		15	175	0.000	0.52	1.10	1.15	\$38	\$30	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB	
	HE Bathroom Fans		15	39	0.005	0.52	1.10	1.15	\$44	\$10	\$0.00	0.000	0	1-20 CFM unit	MA TRM	MA TRM	
	HVAC Quality Install		15	38	0.005	0.52	1.10	1.15	\$0	\$25	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption	
	Ductless Mini-Split A/C		15	157	0.086	0.52	1.10	1.15	\$498	\$200	\$0.00	0.000	0	1- 1.5 ton unit	PA TRM	PA IC DB	
	Heat Pump (Air-Wtr) w Domestic Hot Water		15	3,507	0.088	0.52	1.10	1.15	\$1,423	\$400	\$0.00	0.000	0	1- 2.75 ton unit	PA TRM	PA IC DB	
	Comprehensive Audits		Comprehensive Audit	9	877	0.379	1.00	1.00	0.96	\$968	\$500	\$0.00	0.000	0	1 - Audit w DI & Vtglt Retrofits	Actuals	Actuals
		MF - Tenant - DI - Res	15	225	0.025	1.00	1.00	0.96	\$200	\$140	\$0.00	0.000	0	1 Tenant Space	Actuals	Actuals	
MF - Tenant - Prescriptive - Res		13	79	0.010	1.00	1.00	0.96	\$207	\$50	\$0.00	0.000	0	1 Avg Appliance	PA TRM	PA IC DB		
MF - Tenant - Custom - Res		15	275	0.114	1.00	1.00	0.96	\$269	\$125	\$0.00	0.000	0	1.5 Ton Unit	PA TRM	PA IC DB		
MF - Common - Prescriptive - Res		14	274	0.010	1.00	1.00	0.96	\$82	\$50	\$0.00	0.000	0	1 Avg Light	PA TRM	PA IC DB		
MF - Common - Custom - Res		15	9,822	2.784	1.00	1.00	0.96	\$2,947	\$540	\$0.00	0.000	0	1 Project	Actuals	Actuals		
MF - Common - DI - Res		15	5,171	0.595	1.00	1.00	0.96	\$1,477	\$1,034	\$0.00	0.000	0	1 Common Space	Actuals	Actuals		
School Education		15	185	0.020	0.84	1.05	1.01	\$35	\$35	\$0.00	0.000	0	1 Wgld Avg Kit	PA TRM	Co Assumption		
EE Kits		12	199	0.021	0.72	1.00	1.00	\$42	\$42	\$0.00	0.000	0	1 Wgld Avg Kit	PA TRM	Co Assumption		
Energy Efficient Homes Program	Behavioral	On-Line Audit	1	130	0.020	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	EE Consultant	N/A		
		Behavioral 2021	1	54	0.009	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A		
		Behavioral 2022	1	85	0.014	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A		
	Behavioral	Behavioral 2023	1	47	0.008	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A		
		Behavioral 2024	1	76	0.013	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A		
		Behavioral 2025	1	37	0.006	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A		
	New Homes	NC - Townhouse and duplex units	15	1,678	0.606	0.73	0.85	0.85	\$1,185	\$652	\$0.00	0.696	4,010	NC Townhouse and Duplex	PA TRM	Co Assumption	
		NC - Two-on-Two condominium units	15	1,422	0.484	0.73	0.85	0.85	\$1,004	\$552	\$0.00	0.696	4,010	NC Two on Two Cond Units	PA TRM	Co Assumption	
		NC - Single-family detached units	15	2,780	1.136	0.73	0.85	0.85	\$1,962	\$1,079	\$0.00	0.696	4,010	NC Single Family Detached	PA TRM	Co Assumption	
		NC - Multi Family Low Rise	15	1,324	0.331	0.73	0.85	0.85	\$934	\$514	\$0.00	0.696	4,010	NC MultiFamily Low Rise	PA TRM	Co Assumption	
		NC - Manufactured Housing	15	1,739	0.366	0.73	0.85	0.85	\$1,228	\$675	\$0.00	0.696	4,010	NC Mfg Housing	PA TRM	Co Assumption	
		NC - Multi Family High Rise	15	1,324	0.331	0.73	0.85	0.85	\$934	\$514	\$0.00	0.700	4,010	NC Multi-Family High Rise	PA TRM	Co Assumption	
	Low Income Energy Efficiency Program	Weatherization	Weatherization (WARM PLUS)	12	1,091	0.109	1.00	1.00	\$1,091	\$1,091	\$0.00	0.000	0	Per HH	Actuals	N/A	
			WARM Extra Measures	12	615	0.043	1.00	1.00	\$615	\$615	\$0.00	0.000	0	Per HH	Actuals	N/A	
		LI - Appliances	Freezer Recycling - LI	5	691	0.112	1.00	1.00	\$0	\$88	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
Refrigerator Recycling - LI			6	944	0.152	1.00	1.00	\$0	\$88	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
Room Air Conditioner Recycling - LI			4	113	0.324	1.00	1.00	\$0	\$65	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
Dehumidifier Recycling - LI			4	500	0.173	1.00	1.00	\$0	\$65	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
Clothes Washer - Level 1			11	117	0.012	1.00	1.15	1.09	\$187	\$60	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB	
Clothes Washer - Level 2			11	166	0.017	1.00	1.15	1.09	\$187	\$60	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB	
Clothes Washer - Level 3			11	178	0.019	1.00	1.15	1.09	\$187	\$60	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB	
Refrigerator - Level 1			14	46	0.008	1.00	1.15	1.09	\$75	\$60	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
Refrigerator - Level 2	14	89	0.014	1.00	1.15	1.09	\$75	\$60	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB			
Refrigerator - Level 3	14	118	0.018	1.00	1.15	1.09	\$75	\$90	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB			
Freezer	11	36	0.006	1.00	1.15	1.09	\$43	\$55	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB			

Appendix D, Table 2: Measure Assumptions¹

Penn Power																
Program	Sub-Program	Measure	Measure Life	Verified kWh	Verified kW	NTG	RR kWh	RR kW	Incremental Cost	Modeled Rebate	O&M Benefit (\$/Unit/Yr)	Gas Savings (MMBTU/Yr)	Water Savings (Gal/Yr)	Savings Assumption	Savings Source	Incremental Cost Source
Low Income Energy Efficiency Program	LI - Appliances	Room Air Conditioner - Level 1	9	20	0.039	1.00	1.15	1.09	\$65	\$55	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Room Air Conditioner - Level 2	9	20	0.039	1.00	1.15	1.09	\$65	\$60	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Dehumidifier	12	240	0.056	1.00	1.15	1.09	\$11	\$55	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Water Heater	10	1,453	0.056	1.00	1.15	1.09	\$664	\$756	\$0.00	0.000	0	1-60 gal unit	PA TRM	PA IC DB
		Pool Pump Variable-Speed	10	1,620	0.388	1.00	1.15	1.09	\$421	\$366	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Dishwasher	10	26	0.003	1.00	1.15	1.09	\$316	\$55	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB
		Water-Cooler	10	235	0.026	1.00	1.15	1.09	\$48	\$55	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		ESV-Charging Cord-Level 2- Res	10	26	0.004	1.00	1.15	1.09	\$55	\$55	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Smart Thermostat - Aplncs	11	230	0.000	1.00	1.15	1.09	\$140	\$80	\$0.00	0.000	0	1 Unit controlling 2.5 Ton CAC	PA TRM	PA IC DB
		School Education - LI	15	211	0.026	1.00	1.00	1.00	\$49	\$49	\$0.00	0.000	0	1 Wgtd Avg Kit	PA TRM	Co Assumption
	LI - EE Kits	Energy Efficiency Measures - LI	12	225	0.026	1.00	1.00	1.00	\$52	\$52	\$0.00	0.000	0	1 Wgtd Avg Kit	PA TRM	Co Assumption
	LI - Behavioral	On-Line Audit - LI	1	190	0.020	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	EE Consultant	N/A
		Behavioral 2021 - LI	1	61	0.010	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A
		Behavioral 2022 - LI	1	98	0.016	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A
		Behavioral 2023 - LI	1	109	0.018	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A
		Behavioral 2024 - LI	1	111	0.019	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A
		Behavioral 2025 - LI	1	113	0.019	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A
		MF - Tenant - DI - Res - LI	14	403	0.067	1.00	1.00	1.00	\$605	\$605	\$0.00	0.000	0	1 Tenant Space	Actuals	N/A
		MF - Tenant - Prescriptive - Res - LI	14	79	0.010	1.00	1.00	1.00	\$119	\$119	\$0.00	0.000	0	1 Avg Appliance	Actuals	N/A
		MF - Tenant - Custom - Res - LI	15	275	0.119	1.00	1.00	1.00	\$410	\$410	\$0.00	0.000	0	1.5 Ton Unit	PA TRM	N/A
		MF - Common - Prescriptive - Res - LI	14	274	0.010	1.00	1.00	1.00	\$410	\$410	\$0.00	0.000	0	1 Avg Light	PA TRM	N/A
	MF - Common - Custom - Res - LI	15	9,822	2.900	1.00	1.00	1.00	\$14,733	\$14,733	\$0.00	0.000	0	1 Project	Actuals	N/A	
	LI - Multifamily - Res	MF - Common - DI - Res - LI	12	37,496	4.500	1.00	1.00	1.00	\$56,245	\$56,245	\$0.00	0.000	0	1 Common Space	Actuals	N/A
		NC - Townhouse and duplex units - LI	15	1,678	0.606	1.00	0.85	0.85	\$1,185	\$790	\$0.00	0.696	4.010	NC Townhouse and Duplex	PA TRM	Co Assumption
		NC - Two-on-Two condominium units - LI	15	1,422	0.484	1.00	0.85	0.85	\$1,004	\$670	\$0.00	0.696	4.010	NC Two on Two Cond Units	PA TRM	Co Assumption
		NC - Single-family detached units - LI	15	2,780	1.136	1.00	0.85	0.85	\$1,962	\$1,300	\$0.00	0.696	4.010	NC Single Family Detached	PA TRM	Co Assumption
		NC - Multi Family Low Rise - LI	15	1,324	0.331	1.00	0.85	0.85	\$934	\$625	\$0.00	0.696	4.010	NC Multi-Family Low Rise	PA TRM	Co Assumption
		NC - Manufactured Housing - LI	15	1,739	0.366	1.00	0.85	0.85	\$1,238	\$815	\$0.00	0.696	4.010	NC Mfg Housing	PA TRM	Co Assumption
		NC - Multi Family High Rise - LI	15	1,324	0.331	1.00	0.85	0.85	\$934	\$625	\$0.00	0.700	4.010	NC Multi-Family High Rise	PA TRM	Co Assumption
		MF - Tenant - DI - SCI - LI	12	403	0.067	1.00	1.00	1.00	\$605	\$605	\$0.00	0.000	0	1 Tenant Space	Actuals	N/A
		MF - Tenant - Prescriptive - SCI - LI	14	79	0.010	1.00	1.00	1.00	\$119	\$119	\$0.00	0.000	0	1 Avg Appliance	Actuals	N/A
		MF - Tenant - Custom - SCI - LI	15	275	0.119	1.00	1.00	1.00	\$269	\$269	\$0.00	0.000	0	1.5 Ton Unit	PA TRM	N/A
	Multi Family - SCI	MF - Common - Prescriptive - SCI - LI	14	274	0.010	1.00	1.00	1.00	\$82	\$82	\$0.00	0.000	0	1 Avg Light	PA TRM	N/A
		MF - Common - Custom - SCI - LI	15	9,822	2.900	1.00	1.00	1.00	\$14,733	\$14,733	\$0.00	0.000	0	1 Project	Actuals	N/A
		MF - Common - DI - SCI - LI	12	37,496	4.500	1.00	1.00	1.00	\$56,245	\$56,245	\$0.00	0.000	0	1 Common Space	Actuals	N/A
MF - Tenant - DI - SCI		15	225	0.025	1.00	1.00	0.96	\$200	\$140	\$0.00	0.000	0	1 Tenant Space	Actuals	Actuals	
MF - Tenant - Prescriptive - SCI		13	79	0.010	1.00	1.00	0.96	\$207	\$50	\$0.00	0.000	0	1 Avg Appliance	PA TRM	PA IC DB	
MF - Tenant - Custom - SCI		15	275	0.114	1.00	1.00	0.96	\$269	\$125	\$0.00	0.000	0	1.5 Ton Unit	PA TRM	PA IC DB	
MF - Common - Prescriptive - SCI		14	274	0.010	1.00	1.00	0.96	\$82	\$50	\$0.00	0.000	0	1 Avg Light	PA TRM	PA IC DB	
MF - Common - Custom - SCI		15	9,822	2.784	1.00	1.00	0.96	\$2,947	\$540	\$0.00	0.000	0	1 Project	Actuals	Actuals	
MF - Common - DI - SCI		15	5,171	0.595	1.00	1.00	0.96	\$1,477	\$1,034	\$0.00	0.000	0	1 Common Space	Actuals	Actuals	
Air Conditioning - Level 1 <=5.4 Tn - SCI		15	778	0.392	0.51	1.00	0.90	\$1,358	\$195	\$0.00	0.000	0	1-5 ton unit	PA TRM	PA IC DB	
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Air Conditioning - Level 1 >5.4 <=20 Tn - SCI	15	729	0.327	0.51	1.00	0.90	\$1,014	\$185	\$0.00	0.000	0	1-11 ton unit	PA TRM	PA IC DB
		Air Conditioning - Level 1 >=20 Tn - SCI	15	1,886	0.825	0.51	1.00	0.90	\$99	\$475	\$0.00	0.000	0	1-20 ton unit	PA TRM	PA IC DB
		Heat Pump - Level 1 <=5.4 Tn - SCI	15	985	0.242	0.51	1.00	0.90	\$1,358	\$250	\$0.00	0.000	0	1 - 5 ton unit	PA TRM	PA IC DB
		Heat Pump - Water & GeoT - ES Tier 3 - SCI	15	2,295	0.032	0.51	1.00	0.90	\$8,802	\$575	\$0.00	0.000	0	1-5 ton unit	PA TRM	PA IC DB
		Ductless Mini-Split HP - Level 3 - SCI	15	742	0.060	0.51	1.00	0.90	\$514	\$185	\$0.00	0.000	0	1-1.5 ton unit	PA TRM	PA IC DB
		PTAC - SCI	15	94	0.041	0.51	1.00	0.90	\$363	\$25	\$0.00	0.000	0	1 - 1 ton unit	PA TRM	PA IC DB
		PTHP - SCI	15	180	0.041	0.51	1.00	0.90	\$363	\$50	\$0.00	0.000	0	1 - 1 ton unit	PA TRM	PA IC DB
		Room Air Conditioner - SCI	9	75	0.107	0.51	1.00	0.90	\$0	\$20	\$0.00	0.000	0	1-1 ton unit	PA TRM	PA IC DB
		Smart Thermostat - Rebate - SCI	8	183	0.000	0.51	1.00	0.90	\$204	\$50	\$0.00	0.000	0	1-5 Ton Unit	MA TRM	MA TRM
		HVAC - Custom - SCI	15	36,691	5.205	0.51	1.00	0.90	\$11,007	\$9,175	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption
	Prescriptive - SCI	Circulating Pump (Mid Strm) - SCI	15	159	0.000	0.51	1.00	0.90	\$38	\$40	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		HVAC - Maintenance - SCI	10	360	0.106	0.51	1.00	0.90	\$175	\$90	\$0.00	0.000	0	1-5 Ton Unit	PA TRM	Co Assumption
		Furnace Fan (Retrofit or New to ECM) - SCI	15	122	0.038	0.51	1.00	0.90	\$242	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Lighting Control (Daylight & Occupancy) - SCI	8	427	0.104	0.70	0.98	0.96	\$80	\$35	\$0.00	0.000	0	1 unit controller	PA TRM	PA IC DB
		Linear Fluorescent - SCI	10	119	0.016	0.70	0.98	0.96	\$6	\$10	\$0.00	0.000	0	1-3 lamp fixture	PA TRM	MA TRM
		LED Linear - SCI	15	133	0.018	0.70	0.98	0.96	\$31	\$11	\$0.92	0.000	0	1-4 lamp trougher	PA TRM	PA IC DB
		LED Channel Signage - SCI	15	369	0.026	0.70	0.98	0.96	\$35	\$30	\$9.46	0.000	0	Per LF of Letter	PA TRM	Co Assumption
		Exit Sign - SCI	15	163	0.018	0.70	0.98	0.96	\$18	\$13	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		LED Fixture External - SCI	15	561	0.000	0.70	0.98	0.96	\$203	\$45	\$2.06	0.000	0	1 Unit	PA TRM	PA IC DB
		LED Fixture Internal - SCI	15	153	0.021	0.70	0.98	0.96	\$40	\$11	\$2.61	0.000	0	1 Unit	PA TRM	PA IC DB
	LED Lamp - SCI	14	25	0.004	0.70	0.98	0.96	\$5	\$2	\$0.50	0.000	0	1 Unit	PA TRM	PA IC DB	
	Lighting - Other - SCI	15	21,560	4.224	0.70	0.98	0.96	\$6,600	\$1,760	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption	
	Street & Area Lighting (Customer Owned) - SCI	12	592	0.000	0.70	0.98	0.96	\$173	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
	LED Reach in Refrig / Frzr Light - SCI	8	602	0.090	0.70	0.98	0.96	\$59	\$50	\$1.73	0.000	0	1 Door	PA TRM	PA IC DB	
	Lighting - Custom - SCI	15	21,560	4.224	0.70	0.98	0.96	\$6,600	\$1,760	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption	
	Network Lighting Control - SCI	8	2	0.000	0.70	0.98	0.96	\$1	\$0	\$0.00	0.000	0	Per sq-ft of building lighting controlled	PA TRM	PA IC DB	
	Linear Lamp - MS - SCI	15	26	0.006	0.70	1.00	1.00	\$7	\$2	\$9.46	0.000	0	1- Unit	PA TRM	PA IC DB	
	High/Low Bay Lamp - MS - SCI	12	993	0.163	0.70	1.00	1.00	\$162	\$80	\$2.57	0.000	0	1- Unit	PA TRM	PA IC DB	
	LED Fixture - MS - SCI	15	88	0.022	0.70	1.00	1.00	\$72	\$7	\$0.92	0.000	0	1- Unit	PA TRM	PA IC DB	
	ECM Evap Fan Motor - SCI	15	1,575	0.162	0.51	1.00	0.90	\$227	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
	Evap Fan Controls - SCI	10	1,278	0.131	0.51	1.00	0.90	\$532	\$100	\$0.00	0.000	0	1 Unit	PA TRM	MA TRM	
	Refrigerator - Reach In - SCI	12	453	0.047	0.51	1.00	0.90	\$729	\$65	\$0.00	0.000	0	1-30CF Unit	PA TRM	MA TRM	
	Freezer - Reach In - SCI	12	850	0.087	0.51	1.00	0.90	\$977	\$65	\$0.00	0.000	0	1-30CF Unit	PA TRM	PA IC DB	
	Refrigerated Case Cover - SCI	5	44	0.000	0.51	1.00	0.90	\$38	\$10	\$0.00	0.000	0	Per LF of Case	PA TRM	PA IC DB	
	Anti Sweat Heater Controls - SCI	12	706	0.071	0.51	1.00	0.90	\$418	\$30	\$0.00	0.000	0	1-Unit	PA TRM	MA TRM	

Appendix D, Table 2: Measure Assumptions¹

Penn Power																	
Program	Sub-Program	Measure	Measure Life	Verified kWh	Verified kW	NTG	RR kWh	RR kW	Incremental Cost	Modeled Rebate	O&M Benefit (\$/Unit/Yr)	Gas Savings (MMBTU/Yr)	Water Savings (Gal/Yr)	Savings Assumption	Savings Source	Incremental Cost Source	
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Strip Curtain - SCI	4	177	0.020	0.51	1.00	0.90	\$10	\$2	\$0.00	0.000	0	Per SF	PA TRM	PA IC DB	
		Ice Machine - SCI	8	479	0.081	0.51	1.00	0.90	\$378	\$50	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB	
		Beverage Vending Machine - Controls - SCI	5	1,410	0.000	0.51	1.00	0.90	\$180	\$30	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB	
		Beverage Vending Machine - Energy Star - SCI	5	1,410	0.000	0.51	1.00	0.90	\$180	\$50	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB	
		Steam Cooker - SCI	12	14,105	2.628	0.51	1.00	0.90	\$351	\$250	\$0.00	0.000	0	1- unit	PA TRM	PA IC DB	
		Fryer - SCI	12	2,456	0.401	0.51	1.00	0.90	\$1,038	\$200	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB	
		Griddle - SCI	12	2,596	0.480	0.51	1.00	0.90	\$950	\$200	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB	
		Hot Food Holding Cabinet - SCI	12	1,730	0.256	0.51	1.00	0.90	\$421	\$250	\$0.00	0.000	0	1-15 CU, FT unit	PA TRM	PA IC DB	
		Combination Oven - SCI	12	18,134	3.354	0.51	1.00	0.90	\$2,512	\$600	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB	
		Convection Oven - SCI	12	1,937	0.358	0.51	1.00	0.90	\$539	\$400	\$0.00	0.000	0	1-full size unit	PA TRM	PA IC DB	
		Dishwasher - SCI	10	3,014	0.372	0.51	1.00	0.90	\$882	\$200	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB	
		Induction Warmer/Rethermalizer Well - SCI	15	400	0.041	0.51	1.00	0.90	\$500	\$200	\$0.00	0.000	0	1-120 well unit	Co Assumption	Co Assumption	
		Coffee Brewer - SCI	15	1,331	0.137	0.51	1.00	0.90	\$200	\$100	\$0.00	0.000	0	1-large batch type II unit	Energy Star	Co Assumption	
		Pre-Rinse Sprayer - SCI	8	478	0.074	0.51	1.00	0.90	\$6	\$35	\$0.00	0.000	0	1-Unit	PA TRM	Co Assumption	
		Agricultural Process Lighting	15	2,216	0.189	0.50	1.00	0.85	\$950	\$222	\$2.31	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		Auto Milker Takeoff	10	434	0.063	0.50	1.00	0.85	\$200	\$90	\$0.00	0.000	0	Per Unit	PA TRM	Co Assumption	
		Dairy Scroll Compressor	15	974	0.141	0.50	1.00	0.85	\$1,000	\$500	\$0.00	0.000	0	Per Unit	PA TRM	Co Assumption	
		HE Ventilation Fans	15	974	0.163	0.50	1.00	0.85	\$250	\$100	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption	
		Heat Reclaimer	15	7,860	1.136	0.50	1.00	0.85	\$4,300	\$1,000	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption	
		High Volume Low Speed Fan	15	9,963	3.829	0.50	1.00	0.85	\$816	\$600	\$0.00	0.000	0	1 Unit	PA TRM	WI TRM	
		Livestock Waterer	10	521	0.000	0.50	1.00	0.85	\$510	\$100	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption	
		Dairy Vac Pump VSD Control	15	19,394	3.528	0.50	1.00	0.85	\$3,400	\$1,000	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption	
		Low Pressure Irrigation	5	3,378	7.465	0.50	1.00	0.85	\$2,085	\$250	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption	
		Custom - Agricultural	15	9,842	0.955	0.50	1.00	0.85	\$2,953	\$1,000	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption	
		Dairy Refrigeration Tune-Up	1	262	0.028	0.50	1.00	0.85	\$194	\$50	\$0.00	0.000	0	1 Refrigerator Cooler	WI TRM	WI TRM	
		Engine Block Heater Timer	15	738	0.000	0.50	1.00	0.85	\$25	\$10	\$0.00	0.000	0	1 Unit	PA TRM	WI TRM	
		Street Lighting (Tarrif / Utility Owned(EMU))	12	604	0.000	1.00	1.00	0.96	\$173	\$40	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Street Lighting (Tarrif / Customer Owned(MU))	12	604	0.000	1.00	1.00	0.96	\$173	\$40	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Refrigerator Recycling - SCI	6	964	0.132	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Freezer Recycling - SCI	5	670	0.092	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Room Air Conditioner Recycling - SCI	4	113	0.213	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		Dehumidifiers Recycling - SCI	5	467	0.147	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
		EV Charging Cord - Level 2 - SCI	10	31	0.003	0.50	1.00	0.85	\$500	\$50	\$0.00	0.000	0	1 Unit	Energy Star	Co Assumption	
		Clothes Washer Level 1&2 - SCI	11	144	0.014	0.50	1.00	0.85	\$187	\$25	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB	
		Clothes Washer Level 3 - SCI	11	155	0.015	0.50	1.00	0.85	\$187	\$25	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB	
	Clothes Dryer - SCI	12	16	0.002	0.50	1.00	0.85	\$358	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
	Refrigerator Level 1&2 - SCI	14	77	0.011	0.50	1.00	0.85	\$75	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
	Refrigerator Level 3 - SCI	14	103	0.014	0.50	1.00	0.85	\$75	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
	Water Heater - Heat Pump - SCI	10	776	0.154	0.50	1.00	0.85	\$651	\$500	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB		
	Freezer - SCI	11	32	0.004	0.50	1.00	0.85	\$43	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
	Dehumidifier - SCI	12	209	0.044	0.50	1.00	0.85	\$11	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
	Water Cooler - SCI	10	204	0.019	0.50	1.00	0.85	\$49	\$25	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption		
	Monitor - SCI	4	24	0.003	0.51	1.00	0.85	\$2	\$5	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
	Computer - SCI	4	119	0.014	0.51	1.00	0.85	\$19	\$5	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
	Uninterruptible Power Supply (UPS) - SCI	10	1,020	0.099	0.51	1.00	0.85	\$295	\$102	\$0.00	0.000	0	1 - 5kVA Unit	CMJIA TRM	CMJIA TRM		
	Imaging - SCI	6	235	0.027	0.51	1.00	0.85	\$11	\$10	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
	Small Network - SCI	5	237	0.027	0.51	1.00	0.85	\$30	\$15	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
	Advanced Pwr Strip - SCI	5	85	0.000	0.51	1.00	0.85	\$34	\$10	\$0.00	0.000	0	1- Advanced Power Strip	PA TRM	Co Assumption		
	Custom - Process Improvement - SCI	15	26,786	2.865	0.80	1.00	0.90	\$8,036	\$2,679	\$0.00	0.000	0	1 Project	Actuals	Actuals		
	Custom - Compressed Air - SCI	13	98,101	11.950	0.80	1.00	0.90	\$29,430	\$9,810	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - Motors - Three Phase - SCI	15	22,307	2.229	0.80	1.00	0.90	\$13,384	\$2,231	\$0.00	0.000	0	1 Project	Actuals	Actuals			
Custom - Refrigeration - SCI	15	95,446	6.948	0.80	1.00	0.90	\$57,268	\$9,545	\$0.00	0.000	0	1 Project	Actuals	Actuals			
Custom - Equipment/Servers - SCI	15	36,067	3.585	0.80	1.00	0.90	\$10,820	\$3,607	\$0.00	0.000	0	1 Project	Actuals	Actuals			
Custom - HVAC/Chlr/Cntrs - SCI	15	36,691	5.205	0.80	1.00	0.90	\$22,015	\$3,670	\$0.00	0.000	0	1 Project	Actuals	Actuals			
Custom - VFDs < 10HP - SCI	15	5,912	0.900	0.80	1.00	0.90	\$1,774	\$600	\$0.00	0.000	0	1 Project	Actuals	Actuals			
Custom - VFDs > 10 HP - SCI	15	33,250	0.900	0.80	1.00	0.90	\$9,975	\$3,325	\$0.00	0.000	0	1 Project	Actuals	Actuals			
Custom - Bldg Improvements - SCI	15	49,110	13.052	0.80	1.00	0.90	\$14,733	\$9,822	\$0.00	0.000	0	1 Project	Actuals	Actuals			
Custom - New Construction - SCI	15	32,010	1.860	0.80	1.00	0.90	\$9,603	\$3,201	\$0.00	0.000	0	1 Project	Actuals	Actuals			
Custom - Audit & Education - SCI	0	0	0.000	0.80	1.00	0.90	\$0	\$5,000	\$0.00	0.000	0	1 Project	N/A	N/A			
Energy Management - SCI	Building Tune Up - SCI	15	103,423	12.455	0.84	1.00	1.00	\$45,802	\$34,130	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption		
	Virtual/Meter Data Commissioning - SCI	15	32,595	3.721	0.90	1.00	1.00	\$9,778	\$3,259	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption		
	Retrocommissioning - SCI	15	95,446	7.720	0.84	1.00	1.00	\$28,634	\$9,545	\$0.00	0.000	0	1 Project	Actuals	Co Assumption		
	Building Operations Training - SCI	5	54,478	7.300	0.84	1.00	1.00	\$5,000	\$5,450	\$0.00	0.000	0	1 Unit	Co Assumption	Co Assumption		
	Energy Consultation - SCI	0	0	0.000	0.80	1.00	1.00	\$0	\$0	\$0.00	0.000	0	N/A	N/A	N/A		
	Audits - SCI	0	0	0.000	0.80	1.00	1.00	\$0	\$5,000	\$0.00	0.000	0	1 Project	N/A	N/A		
	Multi Family - LCI	MF - Tenant - DI - LCI	15	225	0.025	0.90	1.00	0.96	\$200	\$140	\$0.00	0.000	0	1 Tenant Space	Actuals	Actuals	
		MF - Tenant - Prescriptive - LCI	12	79	0.010	0.90	1.00	0.96	\$207	\$50	\$0.00	0.000	0	1 Avg Appliance	PA TRM	PA IC DB	
		MF - Tenant - Custom - LCI	15	275	0.114	0.90	1.00	0.96	\$269	\$125	\$0.00	0.000	0	1.5 Ton Unit	PA TRM	PA IC DB	
		MF - Common - Prescriptive - LCI	14	274	0.010	0.90	1.00	0.96	\$82	\$50	\$0.00	0.000	0	1 Avg Light	PA TRM	PA IC DB	
MF - Common - Custom - LCI		15	9,822	2.784	0.90	1.00	0.96	\$2,947	\$540	\$0.00	0.000	0	1 Project	Actuals	Actuals		
MF - Common - DI - LCI		15	5,171	0.595	0.90	1.00	0.96	\$1,477	\$1,034	\$0.00	0.000	0	1 Common Space	Actuals	Actuals		
Prescriptive - LCI	Air Conditioning - Level 1 <=5.4 Tn - LCI	15	778	0.392	0.51	1.00	0.90	\$1,358	\$195	\$0.00	0.000	0	1-5 ton unit	PA TRM	PA IC DB		
	Air Conditioning - Level 1 >5.4 <20 Tn - LCI	15	729	0.422	0.51	1.00	0.90	\$1,014	\$185	\$0.00	0.000	0	1- 11 ton unit	PA TRM	PA IC DB		
	Air Conditioning - Level 1 >20 Tn - LCI	15	1,886	0.825	0.51	1.00	0.90	\$99	\$475	\$0.00	0.000	0	1- 20 ton unit	PA TRM	PA IC DB		
	Heat Pump - Level 1 <=5.4 Tn - LCI	15	985	0.242	0.51	1.00	0.90	\$1,358	\$250	\$0.00	0.000	0	1 - 5 ton unit	PA TRM	PA IC DB		
	Heat Pump - Water & GeoT - ES Tier 3 - LCI	15	2,295	0.032	0.51	1.00	0.90	\$8,802	\$575	\$0.00	0.000	0	1-5 ton unit	PA TRM	PA IC DB		
	Ductless Mini-Split HP - Level 3 - LCI	15	579	0.067	0.51	1.00	0.90	\$498	\$185	\$0.00	0.000	0	1-1.5 ton unit	PA TRM	PA IC DB		

Appendix D, Table 2: Measure Assumptions¹

Penn Power																		
Program	Sub-Program	Measure	Measure Life	Verified kWh	Verified kW	NTG	RR kWh	RR kW	Incremental Cost	Modeled Rebate	O&M Benefit (\$/Unit/Yr)	Gas Savings (MMBTU/Yr)	Water Savings (Gal/Yr)	Savings Assumption	Savings Source	Incremental Cost Source		
C&I Energy Solutions for Business Program - Large	Prescriptive - LCI	PTAC - LCI	15	94	0.041	0.51	1.00	0.90	\$363	\$25	\$0.00	0.000	0	1 - 1 ton unit	PA TRM	PA IC DB		
		PTHP - LCI	15	180	0.041	0.51	1.00	0.90	\$363	\$50	\$0.00	0.000	0	1 - 1 ton unit	PA TRM	PA IC DB		
		Room Air Conditioner- LCI	9	75	0.107	0.51	1.00	0.90	\$0	\$20	\$0.00	0.000	0	1-1 ton unit	PA TRM	PA IC DB		
		Smart Thermostat -Rebate - LCI	8	183	0.000	0.51	1.00	0.90	\$204	\$50	\$0.00	0.000	0	1-5 Ton Unit	MA TRM	MA TRM		
		HVAC - Custom - LCI	15	219,995	56.993	0.51	1.00	0.90	\$65,998	\$55,000	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption		
		Circulating Pump (Mid Strm) - LCI	15	794	0.000	0.51	1.00	0.90	\$38	\$40	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB		
		HVAC - Maintenance - LCI	10	360	0.106	0.51	1.00	0.90	\$175	\$90	\$0.00	0.000	0	1-5 Ton Unit	PA TRM	Co Assumption		
		Fumace Fan (Retrofit or New to ECM) - LCI	15	122	0.038	0.51	1.00	0.90	\$242	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
		Lighting Controls (Daylight & Occupancy) - LCI	8	427	0.104	0.70	0.98	0.96	\$80	\$35	\$0.00	0.000	0	1 unit controller	PA TRM	PA IC DB		
		Linear Fluorescent - LCI	10	119	0.016	0.70	0.98	0.96	\$6	\$10	\$0.00	0.000	0	1-3 lamp fixture	PA TRM	MA TRM		
		LED Linear - LCI	15	133	0.018	0.70	0.98	0.96	\$31	\$11	\$0.92	0.000	0	1-4 lamp trougher	PA TRM	PA IC DB		
		LED Channel Signage - LCI	15	369	0.026	0.70	0.98	0.96	\$35	\$30	\$0.46	0.000	0	Per LF of Letter	PA TRM	Co Assumption		
		Exit Sign - LCI	15	163	0.018	0.70	0.98	0.96	\$18	\$13	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
		LED Fixture External - LCI	15	561	0.000	0.70	0.98	0.96	\$203	\$45	\$2.06	0.000	0	1 Unit	PA TRM	PA IC DB		
		LED Fixture Internal - LCI	15	133	0.021	0.70	0.98	0.96	\$40	\$11	\$2.61	0.000	0	1 Unit	PA TRM	PA IC DB		
		LED Lamp - LCI	14	25	0.004	0.70	0.98	0.96	\$5	\$2	\$0.50	0.000	0	1 Unit	PA TRM	PA IC DB		
		Lighting - Other - LCI	15	21,560	4.224	0.70	0.98	0.96	\$6,600	\$1,760	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption		
		Street & Area Lighting (Customer Owned) - LCI	12	592	0.000	0.70	0.98	0.96	\$173	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
		LED Reach in Refrig / Frzr Light - LCI	8	602	0.090	0.70	0.98	0.96	\$59	\$50	\$1.73	0.000	0	1 Door	PA TRM	PA IC DB		
		Lighting - Custom - LCI	15	21,560	4.224	0.70	0.98	0.96	\$6,600	\$1,760	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption		
		Network Lighting Control - LCI	8	2	0.000	0.70	0.98	0.96	\$1	\$0	\$0.00	0.000	0	Per sq-ft of building lighting controlled	PA TRM	PA IC DB		
		Linear Lamp - MS - LCI	15	26	0.006	0.70	1.00	1.00	\$7	\$2	\$0.46	0.000	0	1- Unit	PA TRM	PA IC DB		
		High/Low Bay Lamp - MS - LCI	12	993	0.163	0.70	1.00	1.00	\$162	\$60	\$2.57	0.000	0	1- Unit	PA TRM	PA IC DB		
		LED Fixture - MS - LCI	15	88	0.022	0.70	1.00	1.00	\$72	\$7	\$9.92	0.000	0	1- Unit	PA TRM	PA IC DB		
		ECM Evap Fan Motor - LCI	15	1,575	0.162	0.51	1.00	0.90	\$227	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
		Evap Fan Controls - LCI	10	1,278	0.131	0.51	1.00	0.90	\$532	\$100	\$0.00	0.000	0	1 Unit	PA TRM	MA TRM		
		Refrigerator - Reach in - LCI	12	453	0.047	0.51	1.00	0.90	\$729	\$65	\$0.00	0.000	0	1-30CF Unit	PA TRM	MA TRM		
		Freezer - Reach in - LCI	12	850	0.067	0.51	1.00	0.90	\$977	\$65	\$0.00	0.000	0	1-30CF Unit	PA TRM	MA TRM		
		Refrigerated Case Cover - LCI	5	44	0.000	0.51	1.00	0.90	\$38	\$10	\$0.00	0.000	0	Per LF of Case	PA TRM	PA IC DB		
		Anti Sweat Heater Control - LCI	12	706	0.071	0.51	1.00	0.90	\$418	\$30	\$0.00	0.000	0	1-unit	PA TRM	MA TRM		
		Strip Curtain - LCI	4	177	0.020	0.51	1.00	0.90	\$10	\$2	\$0.00	0.000	0	Per SF	PA TRM	PA IC DB		
		Ice Machine - LCI	8	479	0.081	0.51	1.00	0.90	\$378	\$50	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB		
		Beverage Vending Machine - Controls - LCI	5	1,410	0.000	0.51	1.00	0.90	\$180	\$50	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB		
		Beverage Vending Machine - Energy Star - LCI	5	1,410	0.000	0.51	1.00	0.90	\$180	\$50	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB		
		Steam Cooker - LCI	12	14,105	2.628	0.51	1.00	0.90	\$351	\$250	\$0.00	0.000	0	1- unit	PA TRM	PA IC DB		
		Fryer - LCI	12	2,456	0.401	0.51	1.00	0.90	\$1,038	\$200	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB		
		Griddle - LCI	12	2,596	0.480	0.51	1.00	0.90	\$950	\$200	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB		
		Hot Food Holding Cabinet - LCI	12	1,730	0.266	0.51	1.00	0.90	\$421	\$260	\$0.00	0.000	0	1-15 CU, F 1 unit	PA TRM	PA IC DB		
		Combination Oven - LCI	12	18,134	3.354	0.51	1.00	0.90	\$2,512	\$600	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB		
		Convection Oven - LCI	12	1,937	0.358	0.51	1.00	0.90	\$539	\$400	\$0.00	0.000	0	1-full size unit	PA TRM	PA IC DB		
		Dishwasher - LCI	10	3,014	0.372	0.51	1.00	0.90	\$882	\$200	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB		
		Induction Warmer/Rethermalizer Well - LCI	15	400	0.041	0.51	1.00	0.90	\$500	\$200	\$0.00	0.000	0	1-two well unit	Co Assumption	Co Assumption		
		Coffee Brewer - LCI	15	1,331	0.137	0.51	1.00	0.90	\$200	\$100	\$0.00	0.000	0	1-large batch type II unit	Energy Star	Co Assumption		
		Pre-Rinse Sprayer - LCI	8	478	0.074	0.51	1.00	0.90	\$6	\$60	\$0.00	0.000	0	1-unit	PA TRM	Co Assumption		
		Refrigerator Recycling - LCI	6	964	0.132	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
		Freezer Recycling - LCI	5	670	0.092	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
		Room Air Conditioner Recycling - LCI	4	113	0.213	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
		Dehumidifiers Recycling - LCI	5	467	0.147	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
		EV Charging Cord - Level 2 - LCI	10	31	0.003	0.50	1.00	0.85	\$500	\$25	\$0.00	0.000	0	1 Unit	Energy Star	Co Assumption		
		Clothes Washer Level 1&2 - LCI	11	144	0.014	0.50	1.00	0.85	\$187	\$25	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB		
		Clothes Washer Level 3 - LCI	11	155	0.015	0.50	1.00	0.85	\$187	\$50	\$0.00	0.250	1,495	1 Unit	PA TRM	PA IC DB		
		Clothes Dryer - LCI	12	16	0.002	0.50	1.00	0.85	\$358	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
		Refrigerator Level 1& 2 - LCI	14	77	0.011	0.50	1.00	0.85	\$75	\$35	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
		Refrigerator Level 3 - LCI	14	103	0.014	0.50	1.00	0.85	\$75	\$35	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
		Water Heater - Heat Pump - LCI	10	776	0.154	0.50	1.00	0.85	\$651	\$500	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB		
		Freezer - LCI	11	32	0.004	0.50	1.00	0.85	\$43	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
		Dehumidifier - LCI	12	209	0.044	0.50	1.00	0.85	\$11	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
		Water Cooler - LCI	10	204	0.019	0.50	1.00	0.85	\$49	\$25	\$0.00	0.000	0	1 unit	PA TRM	Co Assumption		
		Monitor - LCI	4	24	0.003	0.51	1.00	0.85	\$2	\$5	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB		
		Computer - LCI	4	119	0.014	0.51	1.00	0.85	\$19	\$5	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB		
		Uninterruptible Power Supply (UPS) - LCI	10	1,020	0.099	0.51	1.00	0.85	\$295	\$102	\$0.00	0.000	0	1 - 5kVA Unit	CMJA TRM	CMJA TRM		
		Imaging - LCI	6	235	0.027	0.51	1.00	0.85	\$11	\$10	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
		Small Network - LCI	5	237	0.027	0.51	1.00	0.85	\$30	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
		Advanced Pwr Strip - LCI	5	85	0.000	0.51	1.00	0.85	\$34	\$10	\$0.00	0.000	0	1- Advanced Power Strip	PA TRM	Co Assumption		
		C&I Energy Solutions for Business Program - Large	Custom - LCI	Custom - Process Improvement - LCI	15	197,108	22.197	0.80	1.00	0.90	\$59,132	\$19,711	\$0.00	0.000	0	1 Project	Actuals	Actuals
				Custom - Compressed Air - LCI	15	269,690	32.152	0.80	1.00	0.90	\$80,907	\$26,969	\$0.00	0.000	0	1 Project	Actuals	Actuals
				Custom - Motors - Three Phase - LCI	15	135,192	16.492	0.80	1.00	0.90	\$81,115	\$13,519	\$0.00	0.000	0	1 Project	Actuals	Actuals
				Custom - Refrigeration - LCI	15	128,914	7.071	0.80	1.00	0.90	\$78,149	\$12,691	\$0.00	0.000	0	1 Project	Actuals	Actuals
				Custom - Equipment/Servers - LCI	15	180,335	17.926	0.80	1.00	0.90	\$54,100	\$18,033	\$0.00	0.000	0	1 Project	Actuals	Actuals
				Custom - HVAC/Chlr/Cntrls - LCI	15	219,995	56.993	0.80	1.00	0.90	\$131,997	\$21,999	\$0.00	0.000	0	1 Project	Actuals	Actuals
				Custom - VFDs < 10HP - LCI	15	5,912	0.900	0.80	1.00	0.90	\$1,774	\$600	\$0.00	0.000	0	1 Project	Actuals	Actuals
				Custom - VFDs > 10 HP - LCI	15	33,250	0.900	0.80	1.00	0.90	\$9,975	\$3,259	\$0.00	0.000	0	1 Project	Actuals	Actuals
				Custom - Bldg Improvements - LCI	15	49,110	13.052	0.80	1.00	0.90	\$14,733	\$9,822	\$0.00	0.000	0	1 Project	Actuals	Actuals
				Custom - New Construction - LCI	15	56,438	17.848	0.80	1.00	0.90	\$16,931	\$5,644	\$0.00	0.000	0	1 Project	Actuals	Actuals
				Custom - Audit & Education - LCI	1	0	0.000	0.80	1.00	0.90	\$0	\$10,000	\$0.00	0.000	0	N/A	N/A	
				Building Tune Up - LCI	5	398,714	85.714	0.84	1.00	1.00	\$176,573	\$123,601	\$0.00	0.000	0	Co Assumption	Co Assumption	Co Assumption
				Virtual/Meter Data Commissioning - LCI	15	32,595	3.721	0.90	1.00	1.00	\$9,778	\$3,259	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption
				Retrocommissioning - LCI	15	832,499	131,670	0.84	1.00	1.00	\$159,750	\$53,250	\$0.00	0.000	0	1 Project	Actuals	Co Assumption
				Building Operations Training - LCI	5	54,478	7.300	0.84	1.00	1.00	\$5,000	\$5,450	\$0.00	0.000	0	1 Unit	Co Assumption	Co Assumption

Appendix D, Table 3: Avoided Cost Outputs

Penn Power

PA ACT 129 Program Year	Year	Penn Power Zone Summer On-Peak (\$/MWh)	Penn Power Zone Summer Off-Peak (\$/MWh)	Penn Power Zone Winter On-Peak (\$/MWh)	Penn Power Zone Winter Off-Peak (\$/MWh)	Penn Power Zone Shoulder On-Peak (\$/MWh)	Penn Power Zone Shoulder Off-Peak (\$/MWh)	Generation Capacity (\$/kW/year)	Transmission Capacity (\$/kW/year)	Distribution Capacity (\$/kW/year)	Avoided Natural Gas Fuel Costs (\$/MMBTU)	
13	2022	\$32.19	\$22.43	\$41.98	\$33.98	\$31.68	\$24.47	\$63.79	\$0.00	\$19.05	\$2.68	Segment 1
14	2023	\$31.98	\$22.87	\$41.75	\$34.66	\$31.50	\$24.96	\$65.06	\$0.00	\$19.43	\$2.62	
15	2024	\$32.62	\$23.33	\$42.59	\$35.35	\$32.13	\$25.45	\$66.36	\$0.00	\$19.82	\$2.67	
16	2025	\$33.27	\$23.80	\$43.44	\$36.06	\$32.77	\$25.96	\$67.69	\$0.00	\$20.22	\$2.75	
17	2026	\$35.60	\$25.11	\$45.96	\$37.58	\$34.84	\$27.18	\$69.04	\$0.00	\$20.62	\$2.94	Segment 2
18	2027	\$37.37	\$26.34	\$49.28	\$39.98	\$36.85	\$28.63	\$70.43	\$0.00	\$21.03	\$3.13	
19	2028	\$39.30	\$27.67	\$52.98	\$42.63	\$39.05	\$30.20	\$71.83	\$0.00	\$21.45	\$3.34	
20	2029	\$41.15	\$28.95	\$56.00	\$44.83	\$41.00	\$31.60	\$73.27	\$0.00	\$21.88	\$3.52	
21	2030	\$42.35	\$29.79	\$58.49	\$46.66	\$42.44	\$32.66	\$74.74	\$0.00	\$22.32	\$3.66	
22	2031	\$43.95	\$30.90	\$61.48	\$48.84	\$44.18	\$33.93	\$76.23	\$0.00	\$22.77	\$3.83	
23	2032	\$45.97	\$32.30	\$65.97	\$51.84	\$46.44	\$35.55	\$77.75	\$0.00	\$23.22	\$4.05	Segment 3
24	2033	\$47.64	\$33.46	\$69.20	\$53.99	\$48.25	\$36.86	\$79.31	\$0.00	\$23.69	\$4.22	
25	2034	\$49.22	\$34.55	\$72.19	\$55.98	\$49.93	\$38.09	\$80.90	\$0.00	\$24.16	\$4.38	
26	2035	\$49.65	\$34.87	\$72.75	\$56.31	\$50.30	\$38.42	\$82.51	\$0.00	\$24.64	\$4.40	
27	2036	\$50.19	\$35.26	\$73.51	\$56.77	\$50.77	\$38.82	\$84.16	\$0.00	\$25.14	\$4.44	
28	2037	\$51.46	\$36.14	\$75.83	\$58.30	\$52.10	\$39.81	\$85.85	\$0.00	\$25.64	\$4.56	
29	2038	\$52.59	\$36.94	\$77.83	\$59.62	\$53.26	\$40.69	\$87.56	\$0.00	\$26.15	\$4.66	
30	2039	\$53.51	\$37.58	\$79.35	\$60.62	\$54.17	\$41.39	\$89.32	\$0.00	\$26.67	\$4.74	
31	2040	\$54.75	\$38.45	\$81.55	\$62.08	\$55.45	\$42.36	\$91.10	\$0.00	\$27.21	\$4.85	
32	2041	\$56.01	\$39.34	\$83.80	\$63.58	\$56.76	\$43.34	\$92.92	\$0.00	\$27.75	\$4.97	

**Appendix A:
CSP Contract(s)**

CSP Contract Summary

Status

Pending approval by PUC Staff

Full company name of contractor and SEP registration Docket Number

ADM Associates, Inc. – Docket A-2010-2175190

Brief description of statement of work

The Evaluation, Measurement, and Verification (EM&V) services being sought are to 1) perform impact and process evaluations, 2) perform verification of data used to generate regulatory reports, 3) support regulatory reporting, including generation and/or verification of tables or other information included in reports, 4) provide consultative and technical support for plan development and/or updates 5) provide evaluation feedback and guidance supporting effective implementation and accurate reporting for Program Managers, including coordinating and communicating results of any impact or other analyses and 6) perform evaluations and provide reports related to the Companies' offering energy efficiency and demand reduction resources in PJM capacity markets. The qualified firm must work with the selected Statewide Evaluator and meet future requirements developed by the Statewide Evaluator and the PUC.

Name of EE&C Plan Program associated with proposed contract and explanation if SOW addresses the Program in its entirety or in part

The proposed contract spans the portfolio of programs included in the Companies' approved Plans.

Estimated total contract cost and statement regarding incentives and rebates, their amount and explanation if total cost includes incentives and rebates

Redacted – Contains pricing information. Included in CSP contract filed with PUC staff.

Estimated targeted energy savings associated with contract

This contract will not produce energy savings, but rather measure and verify the energy savings produced by implementation of the programs in the Plans.

Timeframe and duration of contract from start date to completion

The term of the contract is for the duration of Act 129 Phase IV and is expected to run from contract award until May 31, 2027 to support final evaluation through the end of the Phase, including applicable reports for the final program year (program years are June 1 – May 31).

Statement relating to the number of bids that were received, justification for selection of CSP contractor/subcontractor if based on receipt of less than three bids for any particular program, and identification and explanation for non-selection of low-bid CSP, if applicable.

ADM was the only complete proposal received for providing the requested EM&V services for the duration of PA Act 129 Phase IV. The only other proposal received from the Request for Proposal (RFP), which was issued to all PA certified Conservation Service Providers, was limited to only one of the six EM&V services listed above in the statement of work, specifically the Companies' energy efficiency and

demand reduction resources participation in PJM capacity markets. That other proposal did not address the other five EM&V services identified above. ADM's pricing is competitive in the industry, less than the contracted amount for Phase III and based on time and materials. ADM has done an excellent job performing EM&V services for the FirstEnergy PA EDCs and has billed significantly below the "not to exceed" contract amounts historically. In addition, ADM has established expertise with Company programs, Pennsylvania EM&V procedures, and credibility with the Statewide Independent Evaluator and PUC staff. A new contractor would involve significant start-up costs. For all of these reasons, FirstEnergy requests that the Commission approve the Companies' recommended award of the EM&V contract to ADM.

**Appendix B:
PUC Tables 1-13**

Appendix B, Table 1: Portfolio Summary of Lifetime Costs and Benefits of Energy Efficiency Measures

West Penn				
Portfolio	Total Discounted Lifetime Costs (\$000)	Total Discounted Lifetime Benefits (\$000)	Total Discounted Net Lifetime Benefits (\$000)	Cost-Benefit Ratio (TRC)
Residential (exclusive of Low Income)	\$49,230	\$54,601	\$5,371	1.1
Residential Low Income	\$16,279	\$10,683	-\$5,595	0.7
Commercial/Industrial Small	\$50,101	\$61,574	\$11,473	1.2
Commercial/Industrial Large	\$56,755	\$93,612	\$36,857	1.6
Total	\$172,365	\$220,471	\$48,106	1.3

Appendix B, Table 2: Summary of Portfolio Energy and Demand Savings

West Penn

MWh Saved for Consumption Reductions (Meter-Level)	PY13		PY14		PY15		PY16		PY17		Total	
	1st-Year MWh	Lifetime MWh	1st-Year MWh	Lifetime MWh	1st-Year MWh	Lifetime MWh	1st-Year MWh	Lifetime MWh	1st-Year MWh	Lifetime MWh	1st-Year MWh	Lifetime MWh
Baseline	20,938,650		20,938,650		20,938,650		20,938,650		20,938,650		20,938,650	
Residential Sector (exclusive of Low Income) – Cumulative Projected Portfolio Savings	26,283	251,181	55,459	507,469	84,287	763,410	112,784	1,019,019	140,855	1,274,203	140,855	1,274,203
Residential Low Income Sub-Sector – Cumulative Projected Portfolio Savings¹	6,063	60,106	12,379	120,464	18,321	180,449	24,532	240,703	30,387	300,600	30,387	300,600
Commercial/Industrial Small Sector – Cumulative Projected Portfolio Savings	22,061	290,789	47,615	632,876	73,169	974,963	98,723	1,317,050	124,276	1,659,137	124,276	1,659,137
Commercial/Industrial Large Sector – Cumulative Net Weather Adjusted Savings	34,263	464,506	68,786	931,296	103,310	1,398,086	138,232	1,866,869	173,155	2,335,653	173,155	2,335,653
EE&C Plan Total – Cumulative Projected Savings	88,670	1,066,582	184,239	2,192,106	279,086	3,316,907	374,271	4,443,641	468,673	5,569,592	468,673	5,569,592
EE&C Plan Total – Percentage of Target to be Met	18%		36%		55%		74%		93%		105%	
<i>Estimated Phase III Carryover Savings</i>											60,705	
Total Cumulative Projected Savings Phase IV + Estimated Phase III Carryover Savings	88,670	1,066,582	184,239	2,192,106	279,086	3,316,907	374,271	4,443,641	468,673	5,569,592	529,378	5,569,592
EE&C Plan Total – Percentage of Target to be Met	18%		36%		55%		74%		93%		105%	
Percent Reduction from Baseline	0.4%		0.9%		1.3%		1.8%		2.2%		2.5%	
Commission-Identified Goal											504,951	
Percent Savings due to Portfolio Above or Below Commission-Identified Goal											5%	

¹ Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 3: Summary of Portfolio Energy and Demand Savings

West Penn												
MW Saved for Consumption Reductions (System-Level)	PY13		PY14		PY15		PY16		PY17		Total	
	1st-Year MW	Lifetime MW	1st-Year MW	Lifetime MW	1st-Year MW	Lifetime MW	1st-Year MW	Lifetime MW	1st-Year MW	Lifetime MW	1st-Year MW	Lifetime MW
Baseline	3,496		3,496		3,496		3,496		3,496		3,496	
Residential Sector (exclusive of Low Income) – Cumulative Projected Portfolio Savings	5.3	48.2	11.2	97.8	17.0	147.3	22.7	196.7	28.4	246.1	28.4	246.1
Residential Low Income Sub-Sector – Cumulative Projected Portfolio Savings ¹	0.9	8.7	1.9	17.5	2.8	26.2	3.8	34.9	4.7	43.6	4.7	43.6
Commercial/Industrial Small Sector – Cumulative Projected Portfolio Savings	4.7	59.6	9.9	125.8	15.0	192.0	20.2	258.1	25.3	324.3	25.3	324.3
Commercial/Industrial Large Sector – Cumulative Net Weather Adjusted Savings	6.0	80.0	12.1	160.3	18.1	240.7	24.3	321.5	30.4	402.2	30.4	402.2
EE&C Plan Total – Cumulative Projected Savings	17.0	196.6	35.0	401.4	52.9	606.1	71.0	811.2	88.8	1,016.2	88.8	1,016.2
EE&C Plan Total – Percentage of Target to be Met	20%		41%		62%		83%		103%		103%	
<i>Percent Reduction from Baseline</i>	<i>0.5%</i>		<i>1.0%</i>		<i>1.5%</i>		<i>2.0%</i>		<i>2.5%</i>		<i>2.5%</i>	
<i>Commission-Identified Goal</i>											86	
<i>Percent Savings due to Portfolio Above or Below Commission-Identified Goal</i>											3%	

¹Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 4: Summary of Portfolio Costs

West Penn

Sector	PY13		PY14		PY15		PY16		PY17	
	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%
Residential Portfolio Annual Budget	\$7,005	30%	\$7,242	31%	\$7,242	31%	\$7,242	31%	\$7,242	31%
Residential Low Income Portfolio Annual Budget	\$3,073	13%	\$2,995	13%	\$3,003	13%	\$2,995	13%	\$3,003	13%
Commercial/Industrial Small Portfolio Annual Budget	\$5,664	24%	\$6,676	28%	\$6,676	28%	\$6,676	28%	\$6,676	28%
Commercial/Industrial Large Portfolio Annual Budget	\$5,357	23%	\$5,046	21%	\$5,046	21%	\$5,200	22%	\$5,200	22%
Common Costs	\$2,068	9%	\$1,625	7%	\$1,605	7%	\$1,602	7%	\$1,598	7%
Total Portfolio Annual Budget	\$23,166	100%	\$23,584	100%	\$23,572	100%	\$23,715	100%	\$23,719	100%

Appendix B, Table 5: Program Summaries

West Penn

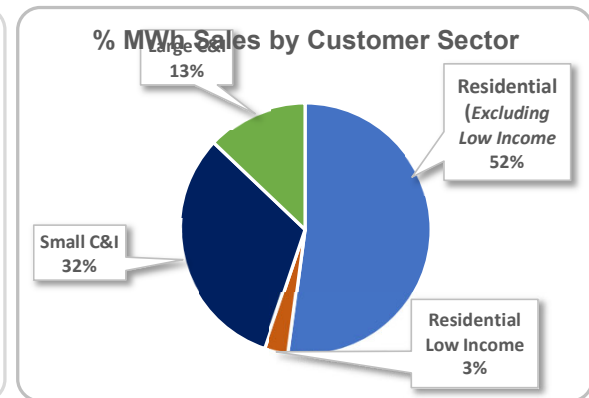
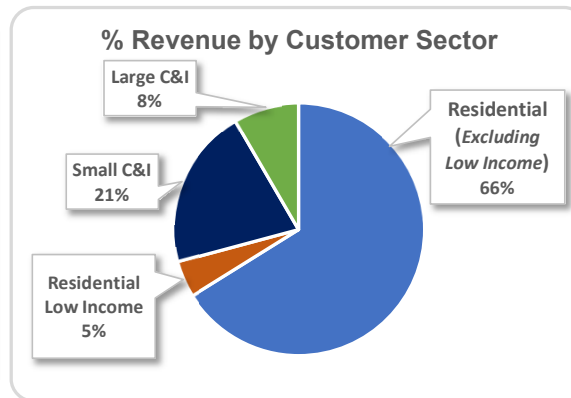
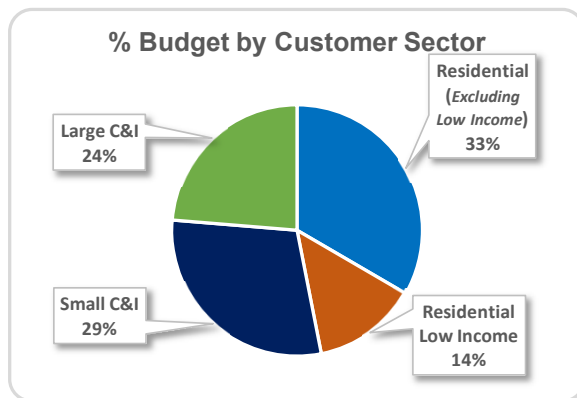
Program Name	Program Market	Program Two-Sentence Summary	Program Years Operated	Lifetime MWh Savings	Lifetime MW Savings	Percentage of Portfolio Resource Savings (MWh% and MW%)		
Residential Portfolio Programs <i>(exclusive of Low Income)</i>	Energy Efficient Products Program	Residential	The program provides financial incentives to residential customers and/or retailers, contractors, distributors or manufacturers to promote customers to purchase and install energy efficient products, such as EnergyStar qualified appliances, consumer electronics, and other energy efficient products. The program will also provide financial incentives to turn in and recycle inefficient appliances, and to promote customers to perform HVAC maintenance or to upgrade HVAC equipment to more efficient technology.	5	434,636	94.0	8%	9%
	Energy Efficient Homes Program	Residential	This program promotes energy efficiency of customer homes through various measures that promote customer energy efficiency education, awareness and adoption of energy efficient behaviors and measures, including customized home energy reports, energy efficiency kits, school education, audits, direct install measures, and financial incentives for implementation of qualified energy efficiency measures in the home. The program also includes financial incentives for the construction of energy efficient new homes.	5	839,566	152.0	15%	15%
	Totals for Residential Sector				1,274,203	246.1	23%	24%
Residential Low Income Sub-Sector Programs	Low Income Energy Efficiency Program	Residential	This program provides customized energy efficiency education and awareness to promote energy efficient behaviors along with no-cost basic to comprehensive whole house energy efficiency measures, including appliance replacement, to qualified low-income customers. The program also promotes low-income customers to install other energy efficient products, such as EnergyStar qualified appliances, consumer electronics, and other energy efficient products, or to turn in and recycle inefficient appliances, through customer education and outreach, giveaways and enhanced financial incentives.	5	277,272	40.4	5%	4%
	Totals for Low-Income Sector				277,272	40.4	5%	4%
Commercial/Industrial Small Portfolio Programs	C&I Energy Solutions for Business Program - Small	Small C&I ¹	The Energy Solutions for Business Program provides financial incentives to small commercial and industrial customers, including government, institutional and multifamily customers, to purchase and install qualifying energy efficiency equipment, recycle inefficient appliances, upgrade less efficient equipment to more efficient end use technology, retrofit specialized equipment and processes, applications and end uses, complete qualifying high efficiency building shell or system improvements. The Program will also promote behavioral savings, adoption of energy saving technologies and efficient building operations through customer education and outreach, audits with direct install measures, building tune-up, energy management strategies, meter data analysis, or retrocommissioning or building operations training to achieve energy savings.	5	1,682,465	327.5	30%	30%
	Totals for C&I Small Sector				1,682,465	327.5	30%	32%
Commercial/Industrial Large Portfolio Programs	C&I Energy Solutions for Business Program - Large	Large C&I	The Energy Solutions for Business Program provides financial incentives to large commercial and industrial customers, including government, institutional and multifamily customers, to purchase and install qualifying energy efficiency equipment, recycle inefficient appliances, upgrade less efficient equipment to more efficient end use technology, retrofit specialized equipment and processes, applications and end uses, complete qualifying high efficiency building shell or system improvements. The Program will also promote behavioral savings, adoption of energy saving technologies and efficient building operations through customer education and outreach, audits with direct install measures, building tune-up, energy management strategies, meter data analysis, or retrocommissioning or building operations training to achieve energy savings.	5	2,335,653	402.2	42%	40%
	Totals for C&I Large Sector				2,335,653	402.2	42%	40%
Totals for Plan					5,569,592	1,016.2	100%	100%

¹ Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 6: Budget and Parity Analysis Summary

West Penn				
Customer Sector	Phase IV EE&C Budget (inclusive of allocated common cost)	% of Total EDC EE&C Budget	% of EDC Total Annual Revenue	% of EDC Total MWh Sales
Residential Sector <i>(exclusive of Low Income)</i>	\$39,277	33%	66%	34%
Residential Low Income Sub-Sector	\$15,998	14%	5%	2%
Residential Subtotal	\$55,275	47%	71%	36%
Commercial/Industrial Small Sector ¹	\$34,579	29%	21%	21%
Commercial/Industrial Large Sector	\$27,902	24%	8%	8%
Non-Residential Subtotal	\$62,480	53%	29%	29%
EDC TOTAL	\$117,756	100%	100%	100%

¹ Includes projected participation of Low Income households living in Multifamily housing.



Appendix B, Table 7: Eligible Measures
West Penn

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
Energy Efficient Products Program	Appliance Recycling	Freezer Recycling	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	5	\$75
		Refrigerator Recycling	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	6	\$75
		Room Air Conditioner Recycling	per unit	No	Removal of an existing inefficient room air conditioner from service, prior to its natural end of life (early retirement).	\$0	4	\$50
		Dehumidifier Recycling	per unit	No	Removal of an existing inefficient dehumidifier from service, prior to its natural end of life (early retirement).	\$0	5	\$50
	Appliance Rebate	Clothes Washer - Level 1	per unit	No	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications.	\$187	11	\$50
		Clothes Washer - Level 2	per unit	No	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 2.	\$187	11	\$75
		Clothes Washer - Level 3	per unit	No	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$187	11	\$100
		Refrigerator - Level 1	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications.	\$75	14	\$75
		Refrigerator - Level 2	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 2.	\$75	14	\$100
		Refrigerator - Level 3	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$75	14	\$150
		Freezer	per unit	No	Purchase and installation of a new freezer meeting or exceeding ENERGY STAR specifications.	\$43	11	\$40
		Clothes Dryer	per unit	No	Purchase and installation of a new clothes dryer meeting or exceeding ENERGY STAR specifications with moisture sensor or a heat pump type clothes dryer.	\$358	12	\$75
		Air Purifier / Cleaner	per unit	No	Purchase and installation of a new air purifier/cleaner meeting or exceeding ENERGY STAR specifications.	\$74	9	\$40
		Room Air Conditioner - Level 1	per unit	No	Purchase and installation of a new room air conditioner meeting or exceeding ENERGY STAR specifications and CEE Tier 1.	\$65	9	\$50
		Room Air Conditioner - Level 2	per unit	No	Purchase and installation of a new room air conditioner meeting either ENERGY STAR specifications and CEE Advanced Tier.	\$65	9	\$100
		Dehumidifier	per unit	No	Purchase and installation of a new dehumidifier meeting or exceeding ENERGY STAR specifications.	\$11	12	\$50
		Water Heater	per unit	No	Purchase and installation of a new electric Heat Pump water heater or Solar Water heater meeting or exceeding ENERGY STAR specifications in place of a standard electric water heater.	\$651	10	\$750
		Pool Pump Variable Speed	per unit	No	Purchase and installation of a variable speed swimming pool pump motor to replace a single speed motor.	\$421	10	\$400
		Dishwasher	per unit	No	Purchase and installation of a new dishwasher meeting or exceeding ENERGY STAR specifications.	\$316	10	\$50
		Water Cooler	per unit	No	Purchase and installation of a new water cooler meeting or exceeding ENERGY STAR specifications.	\$49	10	\$25
EV Charging Cord - Level 2 - Res	per unit	No	Purchase and installation of a new EV Charger Cord meeting or exceeding ENERGY STAR specifications.	\$500	10	\$100		
Smart Thermostat - Aplincs	per unit	No	New installation or replacement of a manual or conventional programmable thermostat with a ENERGY STAR certified connected thermostat. Existing ducted HVAC system with either an air source heat pump, fossil fuel heating with central AC, or an electric furnace with central AC are eligible. Electric resistance baseboard heating as the primary heating system is not eligible.	\$140	11	\$100		
Residential Occupancy Sensor	per unit	No	Purchase and installation of a wall, fixture, or remote-mounted occupancy sensor for interior or common area applications.	\$26	10	\$25		
Ceiling Fan	per unit	No	Purchase and installation of a ceiling fan meeting or exceeding ENERGY STAR specifications with integral LED lamps.	\$15	15	\$35		

Appendix B, Table 7: Eligible Measures
West Penn

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
Energy Efficient Products Program	Consumer Electronics	Monitor	per unit	No	Purchase and installation of a new monitor meeting or exceeding ENERGY STAR specifications.	\$4	4	\$8
		Computer	per unit	No	Purchase and installation of a new computer meeting or exceeding ENERGY STAR specifications.	\$21	4	\$8
		Imaging	per unit	No	Purchase and installation of a new imaging equipment meeting or exceeding ENERGY STAR specifications.	\$14	6	\$8
		Smart Strip Plug Outlet	per unit	No	Purchase and use of a Current-Sensing Master/Controlled Advanced Power Strip (APS) in place of a standard power strip.	\$41	5	\$25
		TV	per unit	No	Purchase and installation of a new television meeting or exceeding ENERGY STAR specifications or 2020 Most Efficient, as applicable.	\$3	6	\$10
		Sound Bar	per unit	No	Purchase and installation of a new sound bar meeting or exceeding ENERGY STAR specifications.	\$5	7	\$20
		Smart Home	per unit	No	Purchase and installation of connected devices that allows for remote user control.	\$14	15	\$25
	HVAC	Heat Pump - Level 2	per unit	No	Purchase and installation of a single package or ducted split HP system central unit prior to end of life or a new system w/ ENERGY STAR qualifying units w/ SEER ratings > or = 16 or 13 EER or 9 HSPF (CEE Tier 2). Includes variable refrigerant flow (VRF) systems.	\$508	15	\$500
		Heat Pump - Level 3	per unit	No	Purchase and installation of a single package or ducted split HP central unit prior to end of life or a new system w/ ENERGY STAR qualifying units w/ SEER ratings > or = 18 or 13.0 EER or 10 HSPF (CEE Tier 3). Includes variable refrigerant flow (VRF) systems.	\$1,423	15	\$1,000
		Central Air Conditioner - Level 2	per unit	No	Purchase and installation of a single package or ducted split central AC unit prior to end of life or a new system w/ Energy Star qualifying units w/ SEER ratings > or = 16 or 13 EER (CEE Tier 2) Includes variable refrigerant flow (VRF) systems.	\$1,059	15	\$400
		Central Air Conditioner - Level 3	per unit	No	Purchase and installation of a single package or ducted split central AC unit prior to end of life or a new system w/ Energy Star qualifying units w/ SEER ratings > or = 18 or 13 EER (CEE Tier 3) Includes variable refrigerant flow (VRF) systems.	\$1,059	15	\$600
		Ductless Mini-Split Heat Pump - Level 3	per unit	No	Purchase and installation of a new or replacement ductless HP ENERGY STAR qualifying unit w/ SEER >= 20, EER >=12.5 or HSPF >= 10.	\$498	15	\$400
		PTAC - Level 2 - Multi Family	per unit	No	Purchase and Installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$454	15	\$225
		PTHP - Level 2 - Multi Family	per unit	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$363	15	\$225
		Heat Pump - Water & GeoT - ES Tier 3	per unit	No	Installation of Energy Star qualified Ground Source Heat Pump: The following scenarios are eligible: • Water to Air - Closed Loop: 17.1 EER, 3.6 COP; Open Loop: 21.1 EER, 4.1 COP • Water to Water - Closed Loop: 16.1 EER, 3.1 COP; Open Loop: 20.1 EER, 3.5 COP; Direct: 16 EER, 3.6 COP	\$10,893	15	\$1,500
		Furnace Fan (Retrofit or New to ECM)	per unit	No	Purchase and installation of a high efficiency brushless permanent magnet fan motor (BPM) or electrically commutated motor (ECM) to replace a permanent split capacitor (PSC) motor.	\$242	15	\$150
		Smart Thermostat - HVAC	per unit	No	New installation or replacement of a manual or conventional programmable thermostat with a ENERGY STAR certified connected thermostat. Existing ducted HVAC system with either an air source heat pump, fossil fuel heating with central AC, or an electric furnace with central AC are eligible. Electric resistance baseboard heating as the primary heating system is not eligible.	\$140	11	\$100
		HVAC - Custom	per unit	No	Replacement, retrofit or maintenance of existing HVAC equipment or process changes or enhancements that results in electric energy savings.	\$113	3	\$100
		Circulating Pump	per unit	No	Replacement of existing single speed circulation pump or new circulation pump with variable speed motor and/or controls to automatically change pump speed to produce flow rates that match system heating requirements.	\$38	15	\$30
		HE Bathroom Fans	per unit	No	Purchase and installation of a new high efficiency bathroom fan that meets or exceeds ENERGY STAR specifications.	\$44	15	\$20
HVAC Quality Install	per unit	No	Implementation of proper sizing techniques which requires Manual J calculations, following of ENERGY STAR HVAC Quality Installation procedures, or similar calculations.	\$0	15	\$200		
Ductless Mini-Split A/C	per unit	No	Purchase and installation of a new or replacement ENERGY STAR qualifying unit w/ SEER >= 20, EER >=12.5.	\$498	15	\$400		

Appendix B, Table 7: Eligible Measures
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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
Energy Efficient Products Program	HVAC	Heat Pump (Air-Wtr) w Domestic Hot Water	per unit	No	Replacement of ducted split central units prior to end of life or a new system w ENERGY STAR qualifying units. Includes variable refrigerant flow (VRF) systems. Heating Coefficient of Performance (COPH) shall be ≥ 1.7 at full load capacity and the following conditions: - Dry bulb air temperature of 5°F - Leaving water temperature of 110°F	\$1,423	15	\$1,000
	Comprehensive Audits	Comprehensive Audit	per Audit w DI & Wgtd Retrofits	No	Provides a Customized Home Energy Report, including diagnostics and testing to any residential customer. Comprehensive measures that are eligible for incentives include, but are not limited to: Windows, Duct Sealing, and Wall & Attic Insulation, etc.	\$968	9	Audit - Up to \$500 for the cost of the audit direct install measures, plus up to \$500 for audit recommended measures and additional incentives
Energy Efficient Homes Program	Multi Family - Res	MF - Tenant - DI - Res	per tenant space	No	Multi-Family Tenant Space Audit w/ direct install measures.	\$200	15	Up to \$250 for the cost of an audit with direct install measures
		MF - Tenant - Prescriptive - Res	per appliance	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$207	13	Same value as incentives offered through the Residential programs.
		MF - Tenant - Custom - Res	per unit	No	Installation of Custom energy efficiency measures including, but not limited to: lighting, HVAC, appliances, etc.	\$269	15	Same value as incentives offered through the Residential programs.
		MF - Common - Prescriptive - Res	per appliance	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$82	14	Same value as incentives offered through the Commercial & Industrial programs.
		MF - Common - Custom - Res	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$2,947	15	Same value as incentives offered through the Commercial & Industrial programs.
		MF - Common - DI - Res	per common space	No	Multi-Family Common Space Audit w/ direct install measures.	\$1,477	15	Up to 80% of the project cost
	School Education	School Education	per wgt'd avg kit	No	Provides energy efficiency education and awareness through students for customers to conserve energy in their homes. In addition to the educational components, this program utilizes low cost direct install items that customers can install by themselves.	\$35	15	NA
	EE Kits	Energy Efficiency Measures	per wgt'd avg kit	No	Energy efficiency kits to encourage customers to adopt energy efficient behaviors to conserve and save energy in their homes.	\$42	12	NA
	Behavioral	On-Line Audit	per household	No	Online Audit process including recommendations and education emphasizing key points, general conservation tips and information on tools and resources supporting implementation of measures and efficiency behaviors that reduces consumption of energy and demand.	\$0	1	NA
		Behavioral 2021	per household	No	Reports containing energy usage comparisons, recommendations and education emphasizing key points, general conservation tips and information on tools and resources supporting implementation of measures and efficiencies behaviors that reduces consumption of energy and demand	\$0	1	NA
		Behavioral 2022	per household	No		\$0	1	NA
		Behavioral 2023	per household	No		\$0	1	NA
		Behavioral 2024	per household	No		\$0	1	NA
		Behavioral 2025	per household	No		\$0	1	NA
	New Homes	NC - Townhouse and duplex units	per unit	No		New Townhouse and duplex units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,185	15
		NC - Two-on-Two condominium units	per unit	No	New Two-on-Two condominium units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,004	15	\$1,000
		NC - Single-family detached units	per unit	No	New Single-family detached units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,962	15	\$2,500
NC - Multi Family Low Rise		per unit	No	New Multi Family Low Rise to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$934	15	\$1,000	
NC - Manufactured Housing		per unit	No	Purchase and installation of a Residential manufactured home compliant to and certified by EPA's ENERGY STAR Manufactured Home ¹ program standard.	\$1,228	15	\$2,500	

Appendix B, Table 7: Eligible Measures

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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
Energy Efficient Homes Program	New Homes	NC - Multi Family High Rise	per unit	No	New Multi Family High Rise to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$934	15	\$2,500
Low Income Energy Efficiency Program	Weatherization	Weatherization (WARM PLUS)	per household	Yes	WARM Plus - Comprehensive weatherization services provided to customers that qualify at or below 150% of the Federal Poverty Income Guidelines	\$1,441	12	NA
		WARM Extra Measures	per household	Yes	WARM - Extra Measures - additional energy efficiency measures provided in coordination with the Low Income Usage Reduction program--measures above and beyond what that program provides. For customers who qualify at or below 150% of the Federal Poverty Income Guidelines	\$818	12	NA
	LI - Appliances	Freezer Recycling - LI	per unit	Yes	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	5	\$100
		Refrigerator Recycling - LI	per unit	Yes	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	6	\$100
		Room Air Conditioner Recycling - LI	per unit	Yes	Removal of an existing inefficient room air conditioner from service, prior to its natural end of life (early retirement).	\$0	4	\$75
		Dehumidifier Recycling - LI	per unit	Yes	Removal of an existing inefficient dehumidifier from service, prior to its natural end of life (early retirement).	\$0	5	\$75
		Clothes Washer - Level 1	per unit	Yes	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications.	\$187	11	\$125
		Clothes Washer - Level 2	per unit	Yes	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 2.	\$187	11	\$125
		Clothes Washer - Level 3	per unit	Yes	Purchase and installation of a new clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$187	11	\$125
		Refrigerator - Level 1	per unit	Yes	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications.	\$75	14	\$180
		Refrigerator - Level 2	per unit	Yes	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 2.	\$75	14	\$180
		Refrigerator - Level 3	per unit	Yes	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$75	14	\$180
		Freezer	per unit	Yes	Purchase and installation of a new freezer meeting or exceeding ENERGY STAR specifications.	\$43	11	\$90
		Clothes Dryer	per unit	Yes	Purchase and installation of a new clothes dryer meeting or exceeding ENERGY STAR specifications with moisture sensor or a heat pump type clothes dryer.	\$358	12	\$125
		Air Purifier / Cleaner	per unit	Yes	Purchase and installation of a new air purifier/cleaner meeting or exceeding ENERGY STAR specifications.	\$74	9	\$60
		Room Air Conditioner - Level 1	per unit	Yes	Purchase and installation of a new room air conditioner meeting or exceeding ENERGY STAR specifications and CEE Tier 1.	\$65	9	\$100
		Room Air Conditioner - Level 2	per unit	Yes	Purchase and installation of a new room air conditioner meeting either ENERGY STAR specifications and CEE Advanced Tier.	\$65	9	\$150
		Dehumidifier	per unit	Yes	Purchase and installation of a new dehumidifier meeting or exceeding ENERGY STAR specifications.	\$11	12	\$75
		Water Heater	per unit.	Yes	Purchase and installation of a new electric Heat Pump water heater or Solar Water heater meeting or exceeding ENERGY STAR specifications in place of a standard electric water heater.	\$651	10	\$1,000
		Pool Pump Variable Speed	per unit.	Yes	Purchase and installation of a variable speed swimming pool pump motor to replace a single speed motor.	\$421	10	\$400
Dishwasher	per unit	Yes	Purchase and installation of a new dishwasher meeting or exceeding ENERGY STAR specifications.	\$316	10	\$75		

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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
Low Income Energy Efficiency Program	LI - Appliances	Water-Cooler	per-unit-	Yes	Purchase-and-installation-of-a-new-water-cooler-meeting-or-exceeding-ENERGY-STAR-specifications--	\$49	40	\$60
		EV-Charging-Cord-Level-2-Res	per-unit-	Yes	Purchase-and-installation-of-a-new-EV-Charger-Cord-meeting-or-exceeding-ENERGY-STAR-specifications--	\$600	40	\$400
		Smart Thermostat - Apnlcs	per unit	Yes	New installation or replacement of a manual or conventional programmable thermostat with a ENERGY STAR certified connected thermostat. Existing ducted HVAC system with either an air source heat pump, fossil fuel heating with central AC, or an electric furnace with central AC are eligible. Electric resistance baseboard heating as the primary heating system is not eligible.	\$140	11	\$125
	LI - School Education	School Education - LI	per wgt'd avg kit	Yes	Provides energy efficiency education and awareness through students for customers to conserve energy in their homes. In addition to the educational components, this program utilizes low cost direct install items that customers can install by themselves.	\$49	15	NA
	LI - EE Kits	Energy Efficiency Measures - LI	per wgt'd avg kit	Yes	Energy efficiency kits to encourage customers to adopt energy efficient behaviors to conserve and save energy in their homes.	\$52	12	NA
	LI - Behavioral	On-Line Audit - LI	per household	Yes	Online Audit process including recommendations and education emphasizing key points, general conservation tips and information on tools and resources supporting implementation of measures and efficiency behaviors that reduces consumption of energy and demand.	\$0	1	NA
		Behavioral 2021 - LI	per household	Yes	Reports containing energy usage comparisons, recommendations and education emphasizing key points, general conservation tips and information on tools and resources supporting implementation of measures and efficiencies behaviors that reduces consumption of energy and demand.	\$0	1	NA
		Behavioral 2022 - LI	per household	Yes		\$0	1	NA
		Behavioral 2023 - LI	per household	Yes		\$0	1	NA
		Behavioral 2024 - LI	per household	Yes		\$0	1	NA
		Behavioral 2025 - LI	per household	Yes		\$0	1	NA
	LI - Multifamily - Res	MF - Tenant - DI - Res - LI	per tenant space	Yes		Multi-Family Tenant Space Audit w/ direct install measures.	\$1,211	12
		MF - Tenant - Prescriptive - Res - LI	per appliance	Yes	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$119	14	Prescriptive measures provided at no cost to low-income customer
		MF - Tenant - Custom - Res - LI	per unit	Yes	Installation of Custom energy efficiency measures including, but not limited to: lighting, HVAC, appliances, etc.	\$410	15	Custom measures provided at no cost to low-income customer
		MF - Common - Prescriptive - Res - LI	per avg light	Yes	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$410	14	Up to 100% of the project cost
		MF - Common - Custom - Res - LI	per project	Yes	Retrofits of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$14,733	15	Up to 100% of the project cost
		MF - Common - DI - Res - LI	per common space	Yes	Multi-Family Common Space Audit w/ direct install measures.	\$56,245	12	Up to 100% of the project cost
	LI - New Homes	NC - Townhouse and duplex units - LI	per unit	Yes	New Townhouse and duplex units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,185	15	\$1,500
		NC - Two-on-Two condominium units - LI	per unit	Yes	New Two-on-Two condominium units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,004	15	\$1,000
		NC - Single-family detached units - LI	per unit	Yes	New Single-family detached units to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$1,962	15	\$2,500
		NC - Multi Family Low Rise - LI	per unit	Yes	New Multi Family Low Rise to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$934	15	\$1,000
		NC - Manufactured Housing - LI	per unit	Yes	Purchase and installation of a Residential manufactured home compliant to and certified by EPA's ENERGY STAR Manufactured Home' program standard.	\$1,228	15	\$2,500
		NC - Multi Family High Rise - LI	per unit	Yes	New Multi Family High Rise to be constructed in accordance with the applicable Energy Star standard, or built at a higher efficiency level than the current adopted building code	\$934	15	\$2,500

Appendix B, Table 7: Eligible Measures
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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Small	Multi Family - SCI	MF - Tenant - DI - SCI - LI	per tenant space	No	Multi-Family Tenant Space Audit w/ direct install measures.	\$1,211	12	Direct install measures provided at no cost to low-income customer
		MF - Tenant - Prescriptive - SCI -LI	per Avg Appliance	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$119	14	Prescriptive measures provided at no cost to low-income customer
		MF - Tenant - Custom - SCI -LI	per unit	No	Installation of Custom energy efficiency measures including, but not limited to: lighting, HVAC, appliances, etc.	\$269	15	Custom measures provided at no cost to low-income customer
		MF - Common - Prescriptive - SCI - LI	per avg light	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$82	14	Up to 100% of the project cost
		MF - Common - Custom - SCI - LI	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$14,733	15	Up to 100% of the project cost
		MF - Common - DI - SCI - LI	per common space	No	Multi-Family Common Space Audit w/ direct install measures.	\$56,245	12	Up to 100% of the project cost
		MF - Tenant - DI - SCI	per tenant space	No	Multi-Family Tenant Space Audit w/ direct install measures.	\$200	15	Up to \$250 for the cost of an audit with direct install measures
		MF - Tenant - Prescriptive - SCI	per Avg Appliance	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$207	13	Same value as incentives offered through the Residential programs.
		MF - Tenant - Custom - SCI	per unit	No	Installation of Custom energy efficiency measures including, but not limited to: lighting, HVAC, appliances, etc.	\$269	15	Same value as incentives offered through the Residential programs.
		MF - Common - Prescriptive - SCI	per avg light	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$82	14	Same value as incentives offered through the Commercial & Industrial programs.
		MF - Common - Custom - SCI	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$2,947	15	Same value as incentives offered through the Commercial & Industrial programs.
		MF - Common - DI - SCI	per common space	No	Multi-Family Common Space Audit w/ direct install measures.	\$1,477	15	Up to 80% of the project cost
	Prescriptive - SCI	Air Conditioning - Level 1 <=5.4 Tn - SCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) SEER >= 16 and EER>=13. Includes Variable Refrigerant Flow (VRF) systems	\$1,358	15	\$200
		Air Conditioning - Level 1 >5.4 < 20 Tn - SCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) exceeding applicable standard by 5%. Includes Variable Refrigerant Flow (VRF) systems.	\$1,014	15	\$150
		Air Conditioning - Level 1 >=20 Tn - SCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) exceeding applicable standard by 5%. Includes Variable Refrigerant Flow (VRF) systems.	\$99	15	\$120
		Heat Pump - Level 1 <=5.4 Tn - SCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System HP, HSPF >= 9 (split), HSPF>=8.2 (single package).	\$1,358	15	\$200
		Heat Pump - Water & GeoT - ES Tier 3 - SCI	per ton	No	Purchase and installation of a new or replacement groundwater source, water source or ground source heat pump system that meets or exceeds the energy efficiency requirements of applicable standard 5%. The following retrofit scenarios are considered: + Ground source heat pumps for existing or new non-residential HVAC applications + Groundwater source heat pumps for existing or new non-residential HVAC applications + Water source heat pumps for existing or new non-residential HVAC applications	\$8,802	15	\$300
		Ductless Mini-Split HP - Level 3 - SCI	per ton	No	Purchase and installation of a new ENERGY STAR Ductless Mini Split HP less than 5.4 tons, SEER >=20, EER >=12.5 EER, and HSPF>=10	\$514	15	\$300
		PTAC - SCI	per ton	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$363	15	\$150
		PTHP - SCI	per ton	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$363	15	\$150
Room Air Conditioner- SCI		per ton	No	Purchase and installation of new unit meeting or exceeding the ENERGY STAR standard.	\$0	9	\$150	
Smart Thermostat -Rebate - SCI	per unit	No	Purchase and installation of a smart thermostat that meets ENERGY STAR certification.	\$204	8	\$150		

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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	HVAC - Custom - SCI	per project	No	Purchase and installation of new high-efficiency HVAC equipment in place of standard efficiency equipment. Also includes the purchase and installation of HVAC controls/controllers that optimizes ventilation and economization control schemes of a building's HVAC system based on occupancy or sensor level inputs.	\$11,007	15	\$0.20 per kWh and/or \$550 per kW saved
		Circulating Pump (Mid Strm) - SCI	per unit	No	Purchase and installation of a new ECM or BPM circulator pump, trip single speed motor for space heating in a commercial application.	\$38	15	\$150
		HVAC - Maintenance - SCI	per unit	No	Maintenance services applicable to C&I customers for documented tune-ups of packaged and split systems up to 20 Tons.	\$175	10	\$250
		Furnace Fan (Retrofit or New to ECM) - SCI	per unit	No	Purchase and installation of a high efficiency brushless permanent magnet fan motor (BPM or ECM) to replace a permanent split capacitor (PSC) motor.	\$242	15	\$150
		Lighting Control (Daylight & Occupancy) - SCI	per sensor	No	Purchase and installation of non-networked lighting controls including, but not limited to: daylight On/Off, dimming, occupancy sensors (wall plate, remote & fixture mounted), time clocks and switching controls.	\$80	8	\$50
		Linear Fluorescent - SCI	per fixture	No	Purchase and installation of high performance T8 lamps replacing existing T8 lamps, or higher efficiency than existing or designed.	\$6	10	\$0.20 per kWh and/or \$550 per kW saved
		LED Linear - SCI	per fixture	No	Purchase and installation of linear LED lighting equipment to a higher efficiency than existing or designed. Must meet ENERGY STAR or DLC, as applicable.	\$31	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Channel Signage - SCI	per in ft	No	Replacement, retrofit or new installation of channel letter signs w/ LED technology. Must meet ENERGY STAR or DLC, as applicable.	\$35	15	\$3
		Exit Sign - SCI	per unit	No	Purchase and installation of LED exit signs to replace incandescent or fluorescent exit signs.	\$18	15	\$23
		LED Fixture External - SCI	per fixture	No	Replacement or new installation of a lighting fixture wired for exclusive use with LED lamps installed in an exterior setting. Must meet ENERGY STAR or DLC, as applicable.	\$203	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Fixture Internal - SCI	per fixture	No	Replacement or new installation of a lighting fixture wired for exclusive use with LED lamps installed in an interior setting. Must meet ENERGY STAR or DLC, as applicable.	\$40	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Lamp - SCI	per unit	No	Purchase and installation of an ENERGY STAR LED lamps, including A-Line and specialty lamps.	\$5	14	\$20
		Lighting - Other - SCI	per project	No	Replacement or new installation of lighting to a higher efficiency than existing or designed lighting equipment. Must meet ENERGY STAR or DLC, as applicable.	\$6,600	15	\$0.20 per kWh and/or \$550 per kW saved
		Street & Area Lighting (Customer Owned) - SCI	per fixture	No	Purchase and installation of new lighting equipment for Street and Area lighting applications to a greater efficiency than existing or designed	\$173	12	\$220
		LED Reach in Refrig / Frizer Light - SCI	per door	No	Purchase and installation of LED luminaires in vertical and horizontal refrigerated display cases replacing linear fluorescent lamp technology. Must meet ENERGY STAR or DLC, as applicable.	\$59	8	\$75
		Lighting - Custom - SCI	per project	No	Replacement or new installation of lighting to a higher efficiency than existing or designed lighting equipment. Specialty lighting applications may be eligible, but will require approval by the Company.	\$6,600	15	\$0.20 per kWh and/or \$550 per kW saved
		Network Lighting Control - SCI	per sq ft of Lighting Controlled	No	Purchase and installation of a networked lighting control system by applying, but not limited to: occupancy sensors, photo sensors, and dimming controls where the system must dim or turn off individual fixtures based on local occupancy and/or light levels. The control system must include luminaire-level lighting control (LLLC) that can switch lights on and off based on occupancy and is capable of full-range dimming based on local light levels.	\$1	8	\$0.60 Per Watt Controlled
		Linear Lamp - MS - SCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$7	15	\$0.20 per kWh and/or \$550 per kW saved
		High/Low Bay Lamp - MS - SCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$162	12	\$0.20 per kWh and/or \$550 per kW saved
		LED Fixture - MS - SCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$72	15	\$0.20 per kWh and/or \$550 per kW saved
ECM Evap Fan Motor - SCI	per unit	No	Purchase and installation of a ECM motor to replace a permanent split capacitor or shaded pole motor in a commercial refrigeration unit.	\$227	15	\$75		
Evap Fan Controls - SCI	per unit	No	Purchase and installation of ON/OFF controls or multispeed controls for an uncontrolled ECM or permanent split capacitor or shaded pole motor in a commercial refrigeration unit.	\$532	10	\$200		

Appendix B, Table 7: Eligible Measures
West Penn

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Refrigerator - Reach In - SCI	per unit	No	Purchase and installation of a new high efficiency packaged commercial refrigerator meeting ENERGY STAR.	\$729	12	\$200
		Freezer - Reach In - SCI	per unit	No	Purchase and installation of a new high efficiency packaged commercial freezer meeting ENERGY STAR.	\$977	12	\$200
		Refrigerated Case Cover - SCI	per lin ft	No	Purchase and installation of night covers on existing open type refrigerated display cases.	\$38	5	\$22
		Anti Sweat Heater Controls - SCI	per door	No	Purchase and installation of anti-sweat door heaters on glass refrigerator or freezer doors with either ON/OFF controls or micropulse controls.	\$418	12	\$60
		Strip Curtain - SCI	per sq ft	No	Purchase and installation of strip curtains applied to walk in cooler or freezer doors; curtains must be at least 0.06" thick. Low temp strip curtains must be used on low temp applications.	\$10	4	\$3
		Ice Machine - SCI	per unit	No	Purchase and installation of new ENERGY STAR qualified ice machine.	\$378	8	\$590 - 0-500 lbs \$980 - 501-1000 lbs \$1100 - over 1000 lbs
		Beverage Vending Machine - Controls - SCI	per unit	No	Retrofit controls for a non ENERGY STAR rated vending machine.	\$180	5	\$125
		Beverage Vending Machine - Energy Star - SCI	per unit	No	The purchase and installation of an ENERGY STAR certified beverage vending machine.	\$180	5	\$150
		Steam Cooker - SCI	per unit	No	Purchase and installation of new a ENERGY STAR steam cooker.	\$351	12	\$300 - 3 pan \$400 - 4 pan \$500 - 5 pan \$600 - 6 pan
		Fryer - SCI	per unit	No	Purchase and installation of new a ENERGY STAR fryer.	\$1,038	12	\$500
		Griddle - SCI	per unit	No	Purchase and installation of new a ENERGY STAR griddle.	\$950	12	\$500
		Hot Food Holding Cabinet - SCI	per unit	No	Purchase and installation of new hot food holding cabinet meeting or exceeding ENERGY STAR standards.	\$421	12	\$500 - full size \$375 - 3/4 size \$225 - 1/2 size
		Combination Oven - SCI	per unit	No	Purchase and installation of new Combination Oven meeting or exceeding ENERGY STAR standards.	\$2,512	12	\$1,500
		Convection Oven - SCI	per unit	No	Purchase and installation of new Convection Oven meeting or exceeding ENERGY STAR standards.	\$539	12	\$500
		Dishwasher - SCI	per unit	No	Purchase and installation of ENERGY STAR qualified stationary or conveyor type commercial dishwasher.	\$882	10	\$500
		Induction Warmer/Rethernalizer Well - SCI	per unit	No	Purchase and installation of a energy efficient Rethernalizer & Food Warmers.	\$500	15	\$200
		Coffee Brewer - SCI	per unit	No	Purchase and installation of a an ENERGY STAR Type II small, medium, or large coffee brewer.	\$200	15	\$100
		Pre-Rinse Sprayer - SCI	per unit	No	Purchase and installation of a new sprayer replacing an existing unit that use 1.6 GPM or less, on/off squeeze lever, and cleanliness of performance of at least 26 seconds. Electric water heating only.	\$6	8	\$55
		Agricultural Process Lighting	per unit	No	Purchase and installation of new or replacement of lighting equipment to a higher efficiency than existing or designed for agriculture grow processes.	\$950	15	\$0.20 per kWh and/or \$550 per kW saved
		Auto Milker Takeoff	per unit	No	Purchase and installation of a new automatic milker takeoffs to replace pre-existing manual takeoffs on dairy milking vacuum pump systems.	\$200	10	\$975
Dairy Scroll Compressor	per unit	No	Purchase and installation of a new or replacement of existing reciprocating compressor with a scroll compressor.	\$1,000	15	\$650		
HE Ventilation Fans	per unit	No	Purchase and installation of a new or replacement of standard efficiency ventilation fans with high efficiency ventilation fans.	\$250	15	\$640		

Appendix B, Table 7: Eligible Measures
West Penn

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Heat Reclaimer	per unit	No	Purchase and installation of a new heat reclaim units on dairy parlor milk refrigeration systems.	\$4,300	15	\$975
		High Volume Low Speed Fan	per ft of fan blade	No	Purchase and installation of new or replacement of conventional circulating fans with High Volume Low Speed (HVLS) fans. HVLS fans are a minimum of 16 feet long in diameter and move more cubic feet of air per watt than conventional circulating fans.	\$816	15	\$25
		Livestock Waterer	per unit	No	Purchase and installation of an energy efficient livestock waterer that is thermostatically controlled and has a minimum of two inches of factory-installed insulation.	\$510	10	\$350
		Dairy Vac Pump VSD Control	per unit	No	Purchase and installation of VFD and controls on dairy vacuum pumps, or the purchase of dairy vacuum pumps with variable speed capability. Pre-existing pumps with VSD's are not eligible for this measure.	\$3,400	15	\$1,500
		Low Pressure Irrigation	per unit	No	Purchase and installation of a low pressure irrigation system.	\$2,095	5	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Agricultural	per unit	No	Replacement or retrofit of existing farm type equipment or process changes or enhancements that results in electric energy savings, including construction of new facilities.	\$2,953	15	\$0.20 per kWh and/or \$550 per kW saved
		Dairy Refrigeration Tune-Up	per unit	No	Tune up of refrigeration systems for agriculture applications.	\$194	1	\$200
		Engine Block Heater Timer	per unit	No	Purchase and installation of a new engine block heater timer.	\$25	15	\$25
		Street Lighting (Tariff / Utility Owned(EMU))	per fixture	No	Replacement or new installation of Street and Area lighting equipment to a greater efficiency than existing or designed	\$173	12	\$220
		Street Lighting (Tariff / Customer Owned(MU))	per fixture	No	Replacement or new installation of Street and Area lighting equipment to a greater efficiency than existing or designed	\$173	12	\$220
	Prescriptive Other - SCI	Refrigerator Recycling - SCI	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	6	\$75
		Freezer Recycling - SCI	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	5	\$75
		Room Air Conditioner Recycling - SCI	per unit	No	Removal of an existing inefficient room air conditioner from service, prior to its natural end of life (early retirement).	\$0	4	\$50
		Dehumidifiers Recycling - SCI	per unit	No	Removal of an existing inefficient dehumidifier from service, prior to its natural end of life (early retirement).	\$0	5	\$50
		EV Charging Cord - Level 2 - SCI	per unit	No	Purchase and installation of an ENERGY STAR rated EV Charger Cord.	\$500	10	\$100
		Clothes Washer Level 1&2 - SCI	per unit	No	Purchase and installation of a clothes washer meeting or exceeding ENERGY STAR, CEE Tier 1, or CEE Tier 2 specifications, as applicable.	\$187	11	\$75
		Clothes Washer Level 3 - SCI	per unit	No	Purchase and installation of a clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$187	11	\$100
		Clothes Dryer - SCI	per unit	No	Purchase and installation of a clothes dryer meeting or exceeding ENERGY STAR specifications with moisture sensor. Heat pump type clothes dryers are eligible.	\$358	12	\$75
		Refrigerator Level 1&2 - SCI	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR, CEE Tier 1 or CEE TIER 2 specifications, as applicable.	\$75	14	\$100
		Refrigerator Level 3 - SCI	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$75	14	\$150
Water Heater - Heat Pump - SCI	per unit	No	Purchase and installation of new or replacement of inefficient electric water heater with a heat pump water heater with uniform energy factors meeting or exceeding the ENERGY STAR specifications. Solar water heating is also eligible.	\$651	10	\$750		
Freezer - SCI	per unit	No	Purchase and installation of a freezer meeting or exceeding ENERGY STAR specifications.	\$43	11	\$40		

Appendix B, Table 7: Eligible Measures
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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Small	Prescriptive Other - SCI	Dehumidifier - SCI	per unit	No	Purchase and installation of a new dehumidifier meeting or exceeding ENERGY STAR specifications.	\$11	12	\$25
		Water Cooler - SCI	per unit	No	Purchase and installation of a new water cooler meeting or exceeding ENERGY STAR specifications.	\$49	10	\$25
		Monitor - SCI	per unit	No	Purchase and installation of a new monitor meeting or exceeding ENERGY STAR specifications.	\$2	4	\$8
		Computer - SCI	per unit	No	Purchase and installation of a new computer meeting or exceeding ENERGY STAR specifications.	\$19	4	\$8
		Uninterruptible Power Supply (UPS) - SCI	per kW rating of UPS	No	Purchase and installation of new UPS (less than 12 kW) that exceeds the minimum average efficiency standard as determined by Table 1 of the Energy Star UPS standard. Table 2 of the standard shall be used in calculating the loading of the UPS.	\$295	10	\$220
		Imaging - SCI	per unit	No	Purchase and installation of a new imaging equipment meeting or exceeding ENERGY STAR specifications.	\$11	6	\$8
		Small Network - SCI	per PC controlled	No	Purchase and installation of network level software that controls desktop computers and monitors power settings with the network. Software must be capable of measuring and managing power consumption of each desktop computer and monitor. Laptops are eligible but savings assume workstation includes desktop monitor, laptop computer with laptop screen in use.	\$30	5	\$15
		Advanced Pwr Strip - SCI	per unit	No	Purchase and installation of a new Tier 1 or Tier 2 Advance Power Strip (APS)	\$34	5	\$25
	Custom - SCI	Custom - Process Improvement - SCI	per project	No	Replacement or retrofit of existing equipment or process changes or enhancements that result in the more efficient use of electrical energy.	\$8,036	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Compressed Air - SCI	per project	No	Purchase and installation of new or replacement or retrofit of existing air compressor systems, including but not limited to: new compressors, air dryers, or increased storage capacity. Other efficiency measures such as: leak repair, controls, high efficiency nozzles, piping enhancements, and no loss drains are also eligible.	\$29,430	13	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Motors - Three Phase - SCI	per hp	No	Purchase and installation of a new premium efficiency motor as a direct replacement or for new construction applications	\$13,384	15	\$50
		Custom - Refrigeration - SCI	per project	No	Purchase and installation of a new or retrofit of refrigeration measures on small commercial walk-in refrigeration and coolers, including, but not limited to: high efficiency fan motors, evaporator fan controllers, floating head pressure controls, evaporator coil defrost controls and variable speed compressor motors.	\$57,268	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Equipment/Servers - SCI	per project	No	Purchase and installation new or retrofit of data center measures (servers, UPS, HVAC, etc.) and the optimization of those systems to decrease energy usage.	\$10,820	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - HVAC/Chlr/Cntrls - SCI	per project	No	Purchase and installation of HVAC controls/controllers that optimizes ventilation and economization control schemes of a building's HVAC system based on occupancy or sensor level inputs.	\$22,015	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - VFDs < 10HP - SCI	per hp	No	Purchase and installation of a new VFD for an existing motor (less than or equal to 10 hp) driving fans, pumps and other suitable applications. VFD retrofits are not eligible.	\$1,774	15	\$150
		Custom - VFDs > 10 HP - SCI	per hp	No	Purchase and installation of a new VFD for an existing motor (greater than 10 hp) driving fans, pumps and other suitable applications. VFD retrofits are not eligible.	\$9,975	15	\$100
		Custom - Bldg Improvements - SCI	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to: wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$14,733	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - New Construction - SCI	per project	No	Implementation of design principles to reduce building electric consumption using current ASHRAE 90.1 or IECC baselines, as applicable.	\$9,603	15	\$0.20 per kWh and/or \$550 per kW saved
	Custom - Audit & Education - SCI	per Audit	No	Comprehensive Energy Audit for commercial/industrial facilities or manufacturing processes recommending installation of efficient equipment, building shell/envelop improvements, manufacturing process changes, building operating changes, or other energy efficiency improvements. Audit must meet minimum audit requirements for buildings or for process equipment.	\$0	0	\$0.20 per kWh and/or \$550 per kW saved towards cost of audit	
	Energy Management - SCI	Building Tune Up - SCI	per project	No	Portfolio of measures and services that focus on the adjustment, maintenance and improvement of building systems to achieve maximum operating efficiency, including the installation of energy efficiency measures.	\$45,802	15	Up to 80% of the project cost
Virtual/Meter Data Commissioning - SCI		per project	No	Assessment of energy usage using meter data and analytics, engineering and building modeling to determine energy saving strategies for the upgrade and/or replacement of building systems including, but not limited to: lighting, HVAC, refrigeration, compressed air and other operational energy savings. Additionally, the measure will utilize pre and post enrollment meter usage data to further evaluate building energy savings.	\$9,778	15	\$0.20 per kWh and/or \$550 per kW saved	
Retrocommissioning - SCI		per project	No	Adjusting electrical, electro-mechanical, mechanical and control system set points to improve system performance to existing building conditions and use, including the installation of energy savings measures and implementation of energy savings strategies identified through facility audit or building operations training.	\$28,634	15	\$0.20 per kWh and/or \$550 per kW saved	

Appendix B, Table 7: Eligible Measures

West Penn

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Small	Energy Management - SCI	Building Operations Training - SCI	per unit	No	Obtain Building Operations Certification (BOC) by attending a certified training program or other training programs as related to the efficient design, operations and maintenance of buildings.	\$5,000	5	Up to 70% of the cost to attend qualified BOC training course and NTE \$1000 per person.
		Energy Consultation - SCI	N/A	No	N/A	\$0	0	NA
		Audits - SCI	per Audit	No	Comprehensive Energy Audit for commercial/industrial facilities or manufacturing processes recommending installation of efficient equipment, building shell/envelop improvements, manufacturing process changes, building operating changes, or other energy efficiency improvements. Audit must meet minimum audit requirements for buildings or for process equipment.	\$0	0	\$0.20 per kWh and/or \$550 per kW saved towards cost of audit
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	MF - Tenant - DI - LCI	per tenant space	No	Multi-Family Tenant Space Audit w/ direct install measures.	\$200	15	Up to \$250 for the cost of an audit with direct install measures
		MF - Tenant - Prescriptive - LCI	per Avg Appliance	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$207	12	Same value as incentives offered through the Residential programs.
		MF - Tenant - Custom - LCI	per unit	No	Installation of Custom energy efficiency measures including, but not limited to: lighting, HVAC, appliances, etc.	\$269	15	Same value as incentives offered through the Residential programs.
		MF - Common - Prescriptive - LCI	per avg light	No	Removal with recycle of inefficient appliances and/or the purchase and installation of ENERGY STAR rated appliances or equipment.	\$82	14	Same value as incentives offered through the Commercial & Industrial programs.
		MF - Common - Custom - LCI	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$2,947	15	Same value as incentives offered through the Commercial & Industrial programs.
		MF - Common - DI - LCI	per common space	No	Multi-Family Common Space Audit w/ direct install measures.	\$1,477	15	Up to 80% of the project cost
	Prescriptive - LCI	Air Conditioning - Level 1 <=5.4 Tn - LCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) SEER >= 16 and EER>=13. Includes Variable Refrigerant Flow (VRF) systems	\$1,358	15	\$200
		Air Conditioning - Level 1 >5.4 < 20 Tn - LCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) exceeding applicable standard by 5%. Includes Variable Refrigerant Flow (VRF) systems.	\$1,014	15	\$150
		Air Conditioning - Level 1 >=20 Tn - LCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System AC, (unitary air, water or evaporatively cooled) exceeding applicable standard by 5%. Includes Variable Refrigerant Flow (VRF) systems.	\$99	15	\$120
		Heat Pump - Level 1 <=5.4 Tn - LCI	per ton	No	Purchase and installation of a new or replacement of a Single Package or Split System HP, HSPF >= 9 (split), HSPF>=8.2 (single package).	\$1,358	15	\$200
		Heat Pump - Water & GeOT - ES Tier 3 - LCI	per ton	No	Purchase and installation of a new or replacement groundwater source, water source or ground source heat pump system that meets or exceeds the energy efficiency requirements of the applicable standard by 5%. The following retrofit scenarios are considered: + Ground source heat pumps for existing or new non-residential HVAC applications + Groundwater source heat pumps for existing or new non-residential HVAC applications + Water source heat pumps for existing or new non-residential HVAC applications	\$8,802	15	\$300
		Ductless Mini-Split HP - Level 3 - LCI	per ton	No	Purchase and installation of a new ENERGY STAR Ductless Mini Split HP less than 5.4 tons, SEER >=20, EER >=12.5 EER, and HSPF>=10	\$498	15	\$300
		PTAC - LCI	per ton	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$363	15	\$150
		PTHP - LCI	per ton	No	Purchase and installation of a new or replacement packaged terminal unit exceeding applicable standard by 7.5%. Includes variable flow refrigerant (VRF) systems.	\$363	15	\$150
		Room Air Conditioner- LCI	per ton	No	Purchase and installation of new unit meeting or exceeding the ENERGY STAR standard.	\$0	9	\$150
		Smart Thermostat - Rebate - LCI	per unit	No	Purchase and installation of a new smart thermostat that meets ENERGY STAR certification.	\$204	8	\$150
		HVAC - Custom - LCI	per project	No	Purchase and installation of new high-efficiency HVAC equipment in place of standard efficiency equipment. Also includes the purchase and installation of HVAC controls/controllers that optimizes ventilation and economization control schemes of a building's HVAC system based on occupancy or sensor level inputs.	\$65,998	15	\$0.20 per kWh and/or \$550 per kW saved
		Circulating Pump (Mid Stm) - LCI	per unit	No	Purchase and installation of a new ECM or BPM circulator pump, r/p single speed motor for space heating in a commercial application.	\$38	15	\$150
		HVAC - Maintenance - LCI	per unit	No	Maintenance services applicable to C&I customers for documented tune-ups of packaged and split systems up to 20 Tons.	\$175	10	\$250

Appendix B, Table 7: Eligible Measures
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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Large	Prescriptive - LCI	Furnace Fan (Retrofit or New to ECM) - LCI	per unit	No	Purchase and installation of a high efficiency brushless permanent magnet fan motor (BPM or ECM) to replace a permanent split capacitor (PSC) motor.	\$242	15	\$150
		Lighting Controls (Daylight & Occupancy) - LCI	per sensor	No	Purchase and installation of non-networked lighting controls including, but not limited to: daylight On/Off, dimming, occupancy sensors (wall plate, remote & fixture mounted), time clocks and switching controls.	\$80	8	\$50
		Linear Fluorescent - LCI	per fixture	No	Purchase and installation of high performance T8 lamps replacing existing T8 lamps, or higher efficiency than existing or designed.	\$6	10	\$0.20 per kWh and/or \$550 per kW saved
		LED Linear - LCI	per fixture	No	Purchase and installation of linear LED lighting equipment to a higher efficiency than existing or designed. Must meet ENERGY STAR or DLC, as applicable.	\$31	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Channel Signage - LCI	per lin ft	No	Replacement, retrofit or new installation of channel letter signs w/ LED technology. Must meet ENERGY STAR or DLC, as applicable.	\$35	15	\$3
		Exit Sign - LCI	per sign	No	Replacement or new installation of a lighting fixture wired for exclusive use with LED lamps installed in an exterior setting. Must meet ENERGY STAR or DLC, as applicable.	\$18	15	\$23
		LED Fixture External - LCI	per fixture	No	Replacement or new installation of a lighting fixture wired for exclusive use with LED lamps installed in an exterior setting. Must meet ENERGY STAR or DLC, as applicable.	\$203	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Fixture Internal - LCI	per fixture	No	Replacement or new installation of a lighting fixture wired for exclusive use with LED lamps installed in an interior setting. Must meet ENERGY STAR or DLC, as applicable.	\$40	15	\$0.20 per kWh and/or \$550 per kW saved
		LED Lamp - LCI	per unit	No	Purchase and installation of an ENERGY STAR LED lamps, including A-Line and specialty lamps.	\$5	14	\$20
		Lighting - Other - LCI	per project	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$6,600	15	\$0.20 per kWh and/or \$550 per kW saved
		Street & Area Lighting (Customer Owned) - LCI	per fixture	No	Purchase and installation of new lighting equipment for Street and Area lighting applications to a greater efficiency than existing or designed	\$173	12	\$220
		LED Reach in Refrig / Frizer Light - LCI	per door	No	Purchase and installation of LED luminaires in vertical and horizontal refrigerated display cases replacing linear fluorescent lamp technology. Must meet ENERGY STAR or DLC, as applicable.	\$59	8	\$75
		Lighting - Custom - LCI	per project	No	Replacement or new installation of lighting to a higher efficiency than existing or designed lighting equipment. Specialty lighting applications may be eligible, but will require approval by the Company.	\$6,600	15	\$0.20 per kWh and/or \$550 per kW saved
		Network Lighting Control - LCI	per sq ft of Lighting Controlled	No	Purchase and installation of a networked lighting control system by applying, but not limited to: occupancy sensors, photo sensors, and dimming controls where the system must dim or turn off individual fixtures based on local occupancy and/or light levels. The control system must include luminaire-level lighting control (LLLC) that can switch lights on and off based on occupancy and is capable of full-range dimming based on local light levels.	\$1	8	\$0.60 Per Watt Controlled
		Linear Lamp - MS - LCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$7	15	\$0.20 per kWh and/or \$550 per kW saved
		High/Low Bay Lamp - MS - LCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$162	12	\$0.20 per kWh and/or \$550 per kW saved
		LED Fixture - MS - LCI	per unit	No	Midstream delivery of maintenance replacement lamps and fixtures. Must meet ENERGY STAR or DLC, as applicable.	\$72	15	\$0.20 per kWh and/or \$550 per kW saved
		ECM Evap Fan Motor - LCI	per unit	No	Purchase and installation of a ECM motor to replace a permanent split capacitor or shaded pole motor in a commercial refrigeration unit.	\$227	15	\$75
		Evap Fan Controls - LCI	per unit	No	Purchase and installation of ON/OFF controls or multispeed controls for an uncontrolled ECM or permanent split capacitor or shaded pole motor in a commercial refrigeration unit.	\$532	10	\$200
		Refrigerator - Reach In - LCI	per unit	No	Purchase and installation of a new high efficiency packaged commercial refrigerator meeting ENERGY STAR.	\$729	12	\$200
Freezer - Reach In - LCI	per unit	No	Purchase and installation of a new high efficiency packaged commercial freezer meeting ENERGY STAR.	\$977	12	\$200		
Refrigerated Case Cover - LCI	per in ft	No	Purchase and installation of night covers on existing open type refrigerated display cases.	\$38	5	\$22		

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Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Large	Prescriptive - LCI	Anti Sweat Heater Control - LCI	per door	No	Purchase and installation of anti-sweat door heaters on glass refrigerator or freezer doors with either ON/OFF controls or micropulse controls.	\$418	12	\$60
		Strip Curtain - LCI	per sq ft	No	Purchase and installation of strip curtains applied to walk in cooler or freezer doors; curtains must be at least 0.06" thick. Low temp strip curtains must be used on low temp applications.	\$10	4	\$3
		Ice Machine - LCI	per unit	No	Purchase and installation of new ENERGY STAR qualified ice machine.	\$378	8	\$590 0-500 lbs \$980 501-1000 lbs \$1100 over 1000 lbs
		Beverage Vending Machine - Controls - LCI	per unit	No	Retrofit controls for a non ENERGY STAR rated vending machine.	\$180	5	\$125
		Beverage Vending Machine - Energy Star - LCI	per unit	No	The purchase and installation of an ENERGY STAR certified beverage vending machine.	\$180	5	\$150
		Steam Cooker - LCI	per unit	No	Purchase and installation of new a ENERGY STAR steam cooker.	\$351	12	\$300 - 3 pan \$400 - 4 pan \$500 - 5 pan \$600 - 6 pan
		Fryer - LCI	per unit	No	Purchase and installation of new a ENERGY STAR fryer.	\$1,038	12	\$500
		Griddle - LCI	per unit	No	Purchase and installation of new a ENERGY STAR griddle.	\$950	12	\$500
		Hot Food Holding Cabinet - LCI	per unit	No	Purchase and installation of new hot food holding cabinet meeting or exceeding ENERGY STAR standards.	\$421	12	\$500 - full size \$375 - 3/4 size \$225 - 1/2 size
		Combination Oven - LCI	per unit	No	Purchase and installation of new Combination Oven meeting or exceeding ENERGY STAR standards.	\$2,512	12	\$1,500
		Convection Oven - LCI	per unit	No	Purchase and installation of new Convection Oven meeting or exceeding ENERGY STAR standards.	\$539	12	\$500
		Dishwasher - LCI	per unit	No	Purchase and installation of a clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$882	10	\$500
		Induction Warmer/Rethernalizer Well - LCI	per unit	No	Purchase and installation of a energy efficient Rethernalizer & Food Warmers.	\$500	15	\$200
		Coffee Brewer - LCI	per unit	No	Purchase and installation of an ENERGY STAR Type II small, medium, or large coffee brewer.	\$200	15	\$100
	Pre-Rinse Sprayer - LCI	per unit	No	Purchase and installation of a new sprayer replacing an existing unit that use 1.6 GPM or less, on/off squeeze lever, and cleanliness of performance of at least 26 seconds. Electric water heating only.	\$6	8	\$55	
	Prescriptive Other LCI	Refrigerator Recycling - LCI	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	6	\$75
		Freezer Recycling - LCI	per unit	No	Removal of an existing inefficient unit generally older than 10 years from service prior to end of useful life thru recycling	\$0	5	\$75
		Room Air Conditioner Recycling - LCI	per unit	No	Removal of an existing inefficient room air conditioner from service, prior to its natural end of life (early retirement).	\$0	4	\$50
		Dehumidifiers Recycling - LCI	per unit	No	Removal of an existing inefficient room air conditioner from service, prior to its natural end of life (early retirement).	\$0	5	\$50
		EV Charging Cord - Level 2 - LCI	per unit	No	Purchase and installation of an ENERGY STAR rated EV Charger Cord.	\$500	10	\$100
		Clothes Washer Level 1&2 - LCI	per unit	No	Purchase and installation of a clothes washer meeting or exceeding ENERGY STAR, CEE Tier 1, or CEE Tier 2 specifications, as applicable.	\$187	11	\$75
Clothes Washer Level 3 - LCI		per unit	No	Purchase and installation of a clothes washer meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$187	11	\$100	

Appendix B, Table 7: Eligible Measures
West Penn

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Large	Prescriptive Other-LCI	Clothes Dryer - LCI	per unit	No	Purchase and installation of a clothes dryer meeting or exceeding ENERGY STAR specifications with moisture sensor. Heat pump type clothes dryers are eligible.	\$358	12	\$75
		Refrigerator Level 1&2 - LCI	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR, CEE Tier 1 or CEE TIER 2 specifications, as applicable.	\$75	14	\$100
		Refrigerator Level 3 - LCI	per unit	No	Purchase and installation of a new refrigerator meeting or exceeding ENERGY STAR specifications and CEE Tier 3.	\$75	14	\$150
		Water Heater - Heat Pump - LCI	per unit	No	Purchase and installation of new or replacement of inefficient electric water heater with a heat pump water heater with uniform energy factors meeting or exceeding the ENERGY STAR specifications. Solar water heating is also eligible.	\$651	10	\$750
		Freezer - LCI	per unit	No	Purchase and installation of a freezer meeting or exceeding ENERGY STAR specifications.	\$43	11	\$40
		Dehumidifier - LCI	per unit	No	Purchase and installation of a new dehumidifier meeting or exceeding ENERGY STAR specifications.	\$11	12	\$25
		Water Cooler - LCI	per unit	No	Purchase and installation of a new water cooler meeting or exceeding ENERGY STAR specifications.	\$49	10	\$25
		Monitor - LCI	per unit	No	Purchase and installation of a new monitor meeting or exceeding ENERGY STAR specifications.	\$2	4	\$8
		Computer - LCI	per unit	No	Purchase and installation of a new computer meeting or exceeding ENERGY STAR specifications.	\$19	4	\$8
		Uninterruptible Power Supply (UPS) - LCI	per kW rating of UPS	No	Purchase and installation of new UPS (less than 12 kW) that exceeds the minimum average efficiency standard as determined by Table 1 of the Energy Star UPS standard. Table 2 of the standard shall be used in calculating the loading of the UPS.	\$295	10	\$220
		Imaging - LCI	per unit	No	Purchase and installation of a new imaging equipment meeting or exceeding ENERGY STAR specifications.	\$11	6	\$8
		Small Network - LCI	per PC controlled	No	Purchase and installation of network level software that controls desktop computers and monitors power settings with the network. Software must be capable of measuring and managing power consumption of each desktop computer and monitor. Laptops are eligible but savings assume workstation includes desktop monitor, laptop computer with laptop screen in use.	\$30	5	\$15
		Advanced Pwr Strip - LCI	per unit	No	Purchase and installation of a new Tier 1 or Tier 2 Advance Power Strip (APS)	\$34	5	\$25
	Custom - LCI	Custom - Process Improvement - LCI	per project	No	Replacement or retrofit of existing equipment or process changes or enhancements that result in the more efficient use of electrical energy.	\$59,132	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Compressed Air - LCI	per project	No	Purchase and installation of new or replacement or retrofit of existing air compressor systems, including but not limited to: new compressors, air dryers, or increased storage capacity. Other efficiency measures such as: leak repair, controls, high efficiency nozzles, piping enhancements, and no loss drains are also eligible.	\$80,907	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Motors - Three Phase - LCI	per hp	No	Purchase and installation of a new premium efficiency motor as a direct replacement or for new construction applications	\$81,115	15	\$50
		Custom - Refrigeration - LCI	per project	No	Purchase and installation of a new or retrofit of refrigeration measures on small commercial walk-in refrigeration and coolers, including, but not limited to: high efficiency fan motors, evaporator fan controllers, floating head pressure controls, evaporator coil defrost controls and variable speed compressor motors.	\$76,149	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Equipment/Servers - LCI	per project	No	Purchase and installation new or retrofit of data center measures (servers, UPS, HVAC, etc.) and the optimization of those systems to decrease energy usage.	\$54,100	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - HVAC/Chtr/Cntrls - LCI	per project	No	Purchase and installation of HVAC controls/controllers that optimizes ventilation and economization control schemes of a building's HVAC system based on occupancy or sensor level inputs.	\$131,997	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - VFDs < 10HP - LCI	per hp	No	Purchase and installation of a new VFD for an existing motor (less than or equal to 10 hp) driving fans, pumps and other suitable applications. VFD retrofits are not eligible.	\$1,774	15	\$150
Custom - VFDs > 10 HP - LCI		per hp	No	Purchase and installation of a new VFD for an existing motor (greater than 10 hp) driving fans, pumps and other suitable applications. VFD retrofits are not eligible.	\$9,975	15	\$100	
Custom - Bldg Improvements - LCI	per project	No	Retrofit of existing building shell, electrical & electric mechanical retrofits to greater efficiency components and processes, including but not limited to: wall and ceiling insulation, windows, reduction of conditioned CF w/ SF of floor space remaining the same, reduction in window size w/ improved R value, installation of building energy management systems.	\$14,733	15	\$0.20 per kWh and/or \$550 per kW saved		

Appendix B, Table 7: Eligible Measures
West Penn

Program	Sub-Program	Measure	Unit	Low Income Measure (Yes/No)	Eligibility Requirements	Incremental Cost (\$/unit)	Estimated Useful Life	Incentive Amount or Incentive Range (\$/unit) ^{1 2 3 4}
C&I Energy Solutions for Business Program - Large	Custom - LCI	Custom - New Construction - LCI	per project	No	implementation of design principles to reduce building electric consumption using current ASHRAE 90.1 or IECC baselines, as applicable.	\$16,931	15	\$0.20 per kWh and/or \$550 per kW saved
		Custom - Audit & Education - LCI	per Audit	No	Comprehensive Energy Audit for commercial/industrial facilities or manufacturing processes recommending installation of efficient equipment, building shell/envelop improvements, manufacturing process changes, building operating changes, or other energy efficiency improvements. Audit must meet minimum audit requirements for buildings or for process equipment.	\$0	1	\$0.20 per kWh and/or \$550 per kW saved towards cost of audit
	Energy Management - LCI	Building Tune Up - LCI	Co Assumption	No	Portfolio of measures and services that focus on the adjustment, maintenance and improvement of building systems to achieve maximum operating efficiency, including the installation of energy efficiency measures.	\$176,573	5	Up to 80% of the project cost
		Virtual/Meter Data Commissioning - LCI	per project	No	Assessment of energy usage using meter data and analytics, engineering and building modeling to determine energy saving strategies for the upgrade and/or replacement of building systems including, but not limited to: lighting, HVAC, refrigeration, compressed air and other operational energy savings. Additionally, the measure will utilize pre and post enrollment meter usage data to further evaluate building energy savings.	\$9,778	15	\$0.20 per kWh and/or \$550 per kW saved
		Retrocommissioning - LCI	per project	No	Adjusting electrical, electro-mechanical, mechanical and control system set points to improve system performance to existing building conditions and use, including the installation of energy savings measures and implementation of energy savings strategies identified through facility audit or building operations training.	\$159,750	15	\$0.20 per kWh and/or \$550 per kW saved
		Building Operations Training - LCI	per unit	No	Obtain Building Operations Certification (BOC) by attending a certified training program or other training programs as related to the efficient design, operations and maintenance of buildings.	\$5,000	5	Up to 70% of the cost to attend qualified BOC training course and NTE \$1000 per person.
		Energy Consultation - LCI	N/A	No	N/A	\$0	0	NA
		Audits - LCI	per Audit	No	Comprehensive Energy Audit for commercial/industrial facilities or manufacturing processes recommending installation of efficient equipment, building shell/envelop improvements, manufacturing process changes, building operating changes, or other energy efficiency improvements. Audit must meet minimum audit requirements for buildings or for process equipment.	\$0	1	\$0.20 per kWh and/or \$550 per kW saved towards cost of audit

¹ All values listed above for incentives are "Up to Values"

² The Company may provide tiered rebate amounts within the incentive ranges listed above for qualifying products that have varying characteristics (e.g. size, features, etc.)

³ The Company may provide prescriptive rebates in lieu of the performance incentives listed above for certain measures and/or applications where the prescriptive value is within the equivalent performance incentive range

⁴ The Company may establish incentive tiers and/or incentive block structures within the performance incentives listed above for different end use technology or sub-measures (lighting, HVAC, etc).

Appendix B, Table 8: Estimated Savings and Participation
West Penn

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total	
Energy Efficient Products Program	Appliance Recycling	Freezer Recycling	Energy Savings (MWh/year)	754	754	754	754	754	3,771	
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.7	
			Projected Participation	1,091	1,091	1,091	1,091	1,091	5,455	
		Refrigerator Recycling	Energy Savings (MWh/year)	4,120	4,120	4,120	4,120	4,120	20,598	
			Demand Reduction (MW)	0.7	0.7	0.7	0.7	0.7	3.6	
			Projected Participation	4,364	4,364	4,364	4,364	4,364	21,820	
		Room Air Conditioner Recycling	Energy Savings (MWh/year)	69	69	69	69	69	344	
			Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	1.1	
			Projected Participation	607	607	607	607	607	3,035	
		Dehumidifier Recycling	Energy Savings (MWh/year)	201	201	201	201	201	1,003	
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.4	
			Projected Participation	401	401	401	401	401	2,005	
	Appliance Rebate	Clothes Washer - Level 1	Energy Savings (MWh/year)	79	79	79	79	79	396	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	675	675	675	675	675	3,375	
			Clothes Washer - Level 2	Energy Savings (MWh/year)	112	112	112	112	112	559
				Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
				Projected Participation	675	675	675	675	675	3,375
			Clothes Washer - Level 3	Energy Savings (MWh/year)	96	96	96	96	96	480
				Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
				Projected Participation	540	540	540	540	540	2,700
			Refrigerator - Level 1	Energy Savings (MWh/year)	60	60	60	60	60	300
				Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
				Projected Participation	1,300	1,300	1,300	1,300	1,300	6,500
		Refrigerator - Level 2	Energy Savings (MWh/year)	58	58	58	58	58	289	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	650	650	650	650	650	3,250	
		Refrigerator - Level 3	Energy Savings (MWh/year)	38	38	38	38	38	192	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	325	325	325	325	325	1,625	
		Freezer	Energy Savings (MWh/year)	17	17	17	17	17	84	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	460	460	460	460	460	2,300	
		Clothes Dryer	Energy Savings (MWh/year)	36	36	36	36	36	179	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1,890	1,890	1,890	1,890	1,890	9,450	
		Air Purifier / Cleaner	Energy Savings (MWh/year)	204	204	204	204	204	1,020	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
			Projected Participation	260	260	260	260	260	1,300	
		Room Air Conditioner - Level 1	Energy Savings (MWh/year)	42	42	42	42	42	210	
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.4	
			Projected Participation	2,075	2,075	2,075	2,075	2,075	10,375	
		Room Air Conditioner - Level 2	Energy Savings (MWh/year)	42	42	42	42	42	210	
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.4	
			Projected Participation	2,075	2,075	2,075	2,075	2,075	10,375	
		Dehumidifier	Energy Savings (MWh/year)	1,242	1,242	1,242	1,242	1,242	6,210	
			Demand Reduction (MW)	0.3	0.3	0.3	0.3	0.3	1.6	
			Projected Participation	5,180	5,180	5,180	5,180	5,180	25,900	
		Water Heater	Energy Savings (MWh/year)	535	535	535	535	535	2,676	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2	
			Projected Participation	368	368	368	368	368	1,842	
		Pool Pump Variable Speed	Energy Savings (MWh/year)	455	455	455	455	455	2,277	
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.6	
			Projected Participation	281	281	281	281	281	1,405	
		Dishwasher	Energy Savings (MWh/year)	4	4	4	4	4	18	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	140	140	140	140	140	700	
		Water Cooler	Energy Savings (MWh/year)	0	0	0	0	0	1	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		EV Charging Cord - Level 2 - Res	Energy Savings (MWh/year)	1	1	1	1	1	3	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	15	15	15	15	15	75	
		Smart Thermostat - Apincs	Energy Savings (MWh/year)	239	239	239	239	239	1,196	
			Demand Reduction (MW)	-	-	-	-	-	-	
			Projected Participation	1,040	1,040	1,040	1,040	1,040	5,200	
		Monitor	Energy Savings (MWh/year)	53	53	53	53	53	263	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1,920	1,920	1,920	1,920	1,920	9,600	
		Computer	Energy Savings (MWh/year)	71	71	71	71	71	356	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
			Projected Participation	525	525	525	525	525	2,625	
		Residential Occupancy Sensor	Energy Savings (MWh/year)	0	0	0	0	0	0	
			Demand Reduction (MW)	-	-	-	-	-	-	
			Projected Participation	1	1	1	1	1	5	
		Ceiling Fan	Energy Savings (MWh/year)	24	24	24	24	24	119	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	500	500	500	500	500	2,500	
		Imaging	Energy Savings (MWh/year)	214	214	214	214	214	1,072	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2	
			Projected Participation	5,240	5,240	5,240	5,240	5,240	26,200	
		Smart Strip Plug Outlet	Energy Savings (MWh/year)	77	77	77	77	77	386	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	589	589	589	589	589	2,945	
		TV	Energy Savings (MWh/year)	161	161	161	161	161	804	
			Demand Reduction (MW)	0.5	0.5	0.5	0.5	0.5	2.4	
			Projected Participation	1,850	1,850	1,850	1,850	1,850	9,250	
		Sound Bar	Energy Savings (MWh/year)	0	0	0	0	0	0	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		Smart Home	Energy Savings (MWh/year)	0	0	0	0	0	0	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	2	2	2	2	2	10	

Appendix B, Table 8: Estimated Savings and Participation

West Penn

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
Energy Efficient Products Program	HVAC	Heat Pump - Level 2	Energy Savings (MWh/year)	712	712	712	712	712	3,560
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	250	250	250	250	250	1,250
		Heat Pump - Level 3	Energy Savings (MWh/year)	235	235	235	235	235	1,175
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	67	67	67	67	67	335
		Central Air Conditioner - Level 2	Energy Savings (MWh/year)	34	34	34	34	34	168
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	95	95	95	95	95	475
		Central Air Conditioner - Level 3	Energy Savings (MWh/year)	7	7	7	7	7	37
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	15	15	15	15	15	75
		Ductless Mini-Split Heat Pump - Level 3	Energy Savings (MWh/year)	242	242	242	242	242	1,210
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	380	380	380	380	380	1,900
		PTAC - Level 2 - Multi Family	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		PTHP - Level 2 - Multi Family	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Heat Pump - Water & GeoT - ES Tier 3	Energy Savings (MWh/year)	68	68	68	68	68	340
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	20	20	20	20	20	100
		Furnace Fan (Retrofit or New to ECM)	Energy Savings (MWh/year)	3	3	3	3	3	17
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	26	26	26	26	26	130
		Smart Thermostat - HVAC	Energy Savings (MWh/year)	25	25	25	25	25	127
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	115	115	115	115	115	575
		HVAC - Custom	Energy Savings (MWh/year)	13	13	13	13	13	66
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	150	150	150	150	150	750
		Circulating Pump	Energy Savings (MWh/year)	4	4	4	4	4	20
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	23	23	23	23	23	115
		HE Bathroom Fans	Energy Savings (MWh/year)	4	4	4	4	4	19
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	100	100	100	100	100	500
		HVAC Quality Install	Energy Savings (MWh/year)	0	0	0	0	0	0
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Ductless Mini-Split A/C	Energy Savings (MWh/year)	13	13	13	13	13	63
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	80	80	80	80	80	400
Heat Pump (Air-Wtr) w Domestic Hot Water	Energy Savings (MWh/year)	4	4	4	4	4	18		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Energy Efficient Homes Program	Comprehensive Audits	Comprehensive Audit	Energy Savings (MWh/year)	88	175	175	175	175	790
			Demand Reduction (MW)	0.0	0.1	0.1	0.1	0.1	0.4
			Projected Participation	100	200	200	200	200	900
	Multi Family - Res	MF - Tenant - DI - Res	Energy Savings (MWh/year)	11	23	23	23	23	101
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	50	100	100	100	100	450
		MF - Tenant - Prescriptive - Res	Energy Savings (MWh/year)	2	4	4	4	4	18
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	25	50	50	50	50	225
		MF - Tenant - Custom - Res	Energy Savings (MWh/year)	49	97	97	97	97	438
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	177	354	354	354	354	1,593
		MF - Common - Prescriptive - Res	Energy Savings (MWh/year)	1	1	1	1	1	5
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	2	4	4	4	4	18
	MF - Common - Custom - Res	Energy Savings (MWh/year)	10	20	20	20	20	88	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1	2	2	2	2	9	
	MF - Common - DI - Res	Energy Savings (MWh/year)	36	72	72	72	72	326	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	7	14	14	14	14	63	
	School Education	School Education	Energy Savings (MWh/year)	667	667	667	667	667	3,334
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.4
			Projected Participation	3,600	3,600	3,600	3,600	3,600	18,000
	EE Kits	Energy Efficiency Measures	Energy Savings (MWh/year)	9,950	9,950	9,950	9,950	9,950	49,750
			Demand Reduction (MW)	1.2	1.2	1.2	1.2	1.2	5.9
			Projected Participation	50,000	50,000	50,000	50,000	50,000	250,000
	Behavioral	On-Line Audit	Energy Savings (MWh/year)	1,131	1,131	1,131	1,131	1,131	5,655
			Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	1.0
			Projected Participation	8,700	8,700	8,700	8,700	8,700	43,500
		Behavioral 2021	Energy Savings (MWh/year)	2,018	-	-	-	-	2,018
			Demand Reduction (MW)	0.4	-	-	-	-	0.4
			Projected Participation	37,323	-	-	-	-	37,323
		Behavioral 2022	Energy Savings (MWh/year)	-	4,715	-	-	-	4,715
			Demand Reduction (MW)	-	0.9	-	-	-	0.9
			Projected Participation	-	70,905	-	-	-	70,905
		Behavioral 2023	Energy Savings (MWh/year)	-	-	4,367	-	-	4,367
			Demand Reduction (MW)	-	-	0.8	-	-	0.8
			Projected Participation	-	-	70,905	-	-	70,905
		Behavioral 2024	Energy Savings (MWh/year)	-	-	-	4,037	-	4,037
			Demand Reduction (MW)	-	-	-	0.7	-	0.7
			Projected Participation	-	-	-	70,905	-	70,905
		Behavioral 2025	Energy Savings (MWh/year)	-	-	-	-	3,611	3,611
			Demand Reduction (MW)	-	-	-	-	0.7	0.7
			Projected Participation	-	-	-	-	70,905	70,905

Appendix B, Table 8: Estimated Savings and Participation

West Penn

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total		
Energy Efficient Homes Program	New Homes	NC - Townhouse and duplex units	Energy Savings (MWh/year)	230	230	230	230	230	1,150		
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.5		
			Projected Participation	137	137	137	137	137	685		
		NC - Two-on-Two condominium units	Energy Savings (MWh/year)	1	1	1	1	1	7		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	1	1	1	1	1	5		
		NC - Single-family detached units	Energy Savings (MWh/year)	1,657	1,657	1,657	1,657	1,657	8,284		
			Demand Reduction (MW)	0.7	0.7	0.7	0.7	0.7	3.7		
			Projected Participation	596	596	596	596	596	2,980		
		NC - Multi Family Low Rise	Energy Savings (MWh/year)	58	58	58	58	58	291		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1		
			Projected Participation	44	44	44	44	44	220		
		NC - Manufactured Housing	Energy Savings (MWh/year)	5	5	5	5	5	26		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	3	3	3	3	3	15		
		NC - Multi Family High Rise	Energy Savings (MWh/year)	1	1	1	1	1	7		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	1	1	1	1	1	5		
		Low Income Energy Efficiency Program	LI - Appliances	Weatherization (WARM PLUS)	Energy Savings (MWh/year)	496	496	496	496	496	2,479
					Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.3
					Projected Participation	344	344	344	344	344	1,720
WARM Extra Measures	Energy Savings (MWh/year)			480	480	480	480	480	2,401		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.2		
	Projected Participation			587	587	587	587	587	2,935		
Freezer Recycling - LI	Energy Savings (MWh/year)			151	151	151	151	151	754		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation			218	218	218	218	218	1,090		
Refrigerator Recycling - LI	Energy Savings (MWh/year)			823	823	823	823	823	4,116		
	Demand Reduction (MW)			0.1	0.1	0.1	0.1	0.1	0.7		
	Projected Participation			872	872	872	872	872	4,360		
Room Air Conditioner Recycling - LI	Energy Savings (MWh/year)			11	11	11	11	11	57		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.2		
	Projected Participation			101	101	101	101	101	505		
Dehumidifier Recycling - LI	Energy Savings (MWh/year)			35	35	35	35	35	175		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation			70	70	70	70	70	350		
Clothes Washer - Level 1	Energy Savings (MWh/year)			9	9	9	9	9	47		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation			80	80	80	80	80	400		
Clothes Washer - Level 2	Energy Savings (MWh/year)			0	0	0	0	0	1		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation			1	1	1	1	1	5		
Clothes Washer - Level 3	Energy Savings (MWh/year)			0	0	0	0	0	1		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation			1	1	1	1	1	5		
Refrigerator - Level 1	Energy Savings (MWh/year)			3	3	3	3	3	15		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation			65	65	65	65	65	325		
Refrigerator - Level 2	Energy Savings (MWh/year)			0	0	0	0	0	0		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation			1	1	1	1	1	5		
Refrigerator - Level 3	Energy Savings (MWh/year)			0	0	0	0	0	1		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation			1	1	1	1	1	5		
Freezer	Energy Savings (MWh/year)			0	0	0	0	0	2		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation			9	9	9	9	9	45		
Clothes Dryer	Energy Savings (MWh/year)			1	1	1	1	1	3		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation			33	33	33	33	33	165		
Air Purifier / Cleaner	Energy Savings (MWh/year)			2	2	2	2	2	8		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation			2	2	2	2	2	10		
Room Air Conditioner - Level 1	Energy Savings (MWh/year)			1	1	1	1	1	5		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation			50	50	50	50	50	250		
Room Air Conditioner - Level 2	Energy Savings (MWh/year)			0	0	0	0	0	0		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation			1	1	1	1	1	5		
Dehumidifier	Energy Savings (MWh/year)			12	12	12	12	12	60		
	Demand Reduction (MW)			0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation			50	50	50	50	50	250		
Water Heater	Energy Savings (MWh/year)	-1	-1	-1	-1	-1	-7				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	-1	-1	-1	-1	-1	-5				
Pool Pump Variable-Speed	Energy Savings (MWh/year)	-2	-2	-2	-2	-2	-8				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	-1	-1	-1	-1	-1	-5				
Dishwasher	Energy Savings (MWh/year)	0	0	0	0	0	0				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	1	1	1	1	1	5				
Water Cooler	Energy Savings (MWh/year)	0	0	0	0	0	1				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	-1	-1	-1	-1	-1	-5				
EV Charging Cord - Level 2 - Res	Energy Savings (MWh/year)	0	0	0	0	0	0				
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0				
	Projected Participation	-1	-1	-1	-1	-1	-5				
Smart Thermostat - Aplncls	Energy Savings (MWh/year)	36	36	36	36	36	179				
	Demand Reduction (MW)	-	-	-	-	-	-				
	Projected Participation	156	156	156	156	156	780				
LI - School Education	Energy Savings (MWh/year)	591	591	591	591	591	2,956				
	Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.4				
	Projected Participation	2,800	2,800	2,800	2,800	2,800	14,000				
LI - EE Kits	Energy Savings (MWh/year)	1,688	1,688	1,688	1,688	1,688	8,438				
	Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	1.1				
	Projected Participation	7,500	7,500	7,500	7,500	7,500	37,500				

Appendix B, Table 8: Estimated Savings and Participation
West Penn

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
Low Income Energy Efficiency Program	LI - Behavioral	<i>On-Line Audit - LI</i>	Energy Savings (MWh/year)	90	90	90	90	90	449
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	690	690	690	690	690	3,450
		<i>Behavioral 2021 - LI</i>	Energy Savings (MWh/year)	644	-	-	-	-	644
			Demand Reduction (MW)	0.1	-	-	-	-	0.1
			Projected Participation	8,787	-	-	-	-	8,787
		<i>Behavioral 2022 - LI</i>	Energy Savings (MWh/year)	-	896	-	-	-	896
			Demand Reduction (MW)	-	0.2	-	-	-	0.2
			Projected Participation	-	7,917	-	-	-	7,917
		<i>Behavioral 2023 - LI</i>	Energy Savings (MWh/year)	-	-	522	-	-	522
			Demand Reduction (MW)	-	-	0.1	-	-	0.1
			Projected Participation	-	-	8,787	-	-	8,787
		<i>Behavioral 2024 - LI</i>	Energy Savings (MWh/year)	-	-	-	792	-	792
			Demand Reduction (MW)	-	-	-	0.1	-	0.1
			Projected Participation	-	-	-	7,917	-	7,917
		<i>Behavioral 2025 - LI</i>	Energy Savings (MWh/year)	-	-	-	-	435	435
			Demand Reduction (MW)	-	-	-	-	0.1	0.1
			Projected Participation	-	-	-	-	8,787	8,787
	LI - Multifamily - Res	<i>MF - Tenant - DI - Res - LI</i>	Energy Savings (MWh/year)	383	383	383	383	383	1,913
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.3
			Projected Participation	474	474	474	474	474	2,370
		<i>MF - Tenant - Prescriptive - Res - LI</i>	Energy Savings (MWh/year)	38	38	38	38	38	188
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	474	474	474	474	474	2,370
		<i>MF - Tenant - Custom - Res - LI</i>	Energy Savings (MWh/year)	114	114	114	114	114	570
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.3
			Projected Participation	415	415	415	415	415	2,076
		<i>MF - Common - Prescriptive - Res - LI</i>	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		<i>MF - Common - Custom - Res - LI</i>	Energy Savings (MWh/year)	10	10	10	10	10	49
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		<i>MF - Common - DI - Res - LI</i>	Energy Savings (MWh/year)	37	37	37	37	37	187
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
	LI - New Homes	<i>NC -Townhouse and duplex units - LI</i>	Energy Savings (MWh/year)	5	5	5	5	5	25
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	3	3	3	3	3	15
		<i>NC - Two-on-Two condominium units - LI</i>	Energy Savings (MWh/year)	1	1	1	1	1	7
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		<i>NC - Single-family detached units - LI</i>	Energy Savings (MWh/year)	3	3	3	3	3	14
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
<i>NC - Multi Family Low Rise - LI</i>		Energy Savings (MWh/year)	7	7	7	7	7	33	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	5	5	5	5	5	25	
<i>NC - Manufactured Housing - LI</i>		Energy Savings (MWh/year)	2	2	2	2	2	9	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1	1	1	1	1	5	
<i>NC - Multi Family High Rise - LI</i>		Energy Savings (MWh/year)	1	1	1	1	1	7	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	1	1	1	1	1	5	
C&I Energy Solutions for Business Program - Small	Multi Family - SCI	<i>MF - Tenant - DI - SCI - LI</i>	Energy Savings (MWh/year)	1	1	1	1	1	4
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		<i>MF - Tenant - Prescriptive - SCI -LI</i>	Energy Savings (MWh/year)	0	0	0	0	0	0
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		<i>MF - Tenant - Custom - SCI -LI</i>	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		<i>MF - Common - Prescriptive - SCI - LI</i>	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		<i>MF - Common - Custom - SCI - LI</i>	Energy Savings (MWh/year)	10	10	10	10	10	49
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		<i>MF - Common - DI - SCI - LI</i>	Energy Savings (MWh/year)	375	375	375	375	375	1,875
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	10	10	10	10	10	50
		<i>MF - Tenant - DI - SCI</i>	Energy Savings (MWh/year)	6	11	11	11	11	51
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	25	50	50	50	50	225
		<i>MF - Tenant - Prescriptive - SCI</i>	Energy Savings (MWh/year)	3	6	6	6	6	25
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	35	70	70	70	70	315
<i>MF - Tenant - Custom - SCI</i>	Energy Savings (MWh/year)	2	4	4	4	4	17		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	7	14	14	14	14	63		
<i>MF - Common - Prescriptive - SCI</i>	Energy Savings (MWh/year)	2	3	3	3	3	15		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	6	12	12	12	12	54		
<i>MF - Common - Custom - SCI</i>	Energy Savings (MWh/year)	10	20	20	20	20	88		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	2	2	2	2	9		
<i>MF - Common - DI - SCI</i>	Energy Savings (MWh/year)	36	72	72	72	72	326		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	7	14	14	14	14	63		

Appendix B, Table 8: Estimated Savings and Participation
West Penn

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Air Conditioning - Level 1 <=5.4 Tn - SCI	Energy Savings (MWh/year)	817	817	817	817	817	4,085
			Demand Reduction (MW)	0.4	0.4	0.4	0.4	0.4	2.2
			Projected Participation	1,050	1,050	1,050	1,050	1,050	5,250
		Air Conditioning - Level 1 >5.4 < 20 Tn - SCI	Energy Savings (MWh/year)	142	142	142	142	142	711
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.4
			Projected Participation	195	195	195	195	195	975
		Air Conditioning - Level 1 >=20 Tn - SCI	Energy Savings (MWh/year)	28	28	28	28	28	141
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	15	15	15	15	15	75
		Heat Pump - Level 1 <=5.4 Tn - SCI	Energy Savings (MWh/year)	34	34	34	34	34	172
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	35	35	35	35	35	175
		Heat Pump - Water & GeoT - ES Tier 3 - SCI	Energy Savings (MWh/year)	11	11	11	11	11	57
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	5	5	5	5	5	25
		Ductless Mini-Split HP - Level 3 - SCI	Energy Savings (MWh/year)	59	59	59	59	59	297
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	80	80	80	80	80	400
		PTAC - SCI	Energy Savings (MWh/year)	47	47	47	47	47	236
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	500	500	500	500	500	2,500
		PTHP - SCI	Energy Savings (MWh/year)	14	14	14	14	14	72
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	80	80	80	80	80	400
		Room Air Conditioner - SCI	Energy Savings (MWh/year)	23	23	23	23	23	117
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	310	310	310	310	310	1,550
		Smart Thermostat - Rebate - SCI	Energy Savings (MWh/year)	15	15	15	15	15	73
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	80	80	80	80	80	400
		HVAC - Custom - SCI	Energy Savings (MWh/year)	37	37	37	37	37	183
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Circulating Pump (Mid Strm) - SCI	Energy Savings (MWh/year)	49	49	49	49	49	246
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	310	310	310	310	310	1,550
		HVAC - Maintenance - SCI	Energy Savings (MWh/year)	23	23	23	23	23	117
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	65	65	65	65	65	325
		Furnace Fan (Retrofit or New to ECM) - SCI	Energy Savings (MWh/year)	12	12	12	12	12	58
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	95	95	95	95	95	475
		Lighting Control (Daylight & Occupancy) - SCI	Energy Savings (MWh/year)	2,990	2,990	2,990	2,990	2,990	14,950
			Demand Reduction (MW)	0.8	0.8	0.8	0.8	0.8	3.9
			Projected Participation	7,000	7,000	7,000	7,000	7,000	35,000
		Linear Fluorescent - SCI	Energy Savings (MWh/year)	55	55	55	55	55	276
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	465	465	465	465	465	2,325
		LED Linear - SCI	Energy Savings (MWh/year)	2,401	2,401	2,401	2,401	2,401	12,006
			Demand Reduction (MW)	0.3	0.3	0.3	0.3	0.3	1.7
			Projected Participation	18,000	18,000	18,000	18,000	18,000	90,000
		LED Channel Signage - SCI	Energy Savings (MWh/year)	111	111	111	111	111	554
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	300	300	300	300	300	1,500
		Exit Sign - SCI	Energy Savings (MWh/year)	51	51	51	51	51	253
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	310	310	310	310	310	1,550
		LED Fixture External - SCI	Energy Savings (MWh/year)	326	326	326	326	326	1,628
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	580	580	580	580	580	2,900
		LED Fixture Internal - SCI	Energy Savings (MWh/year)	74	74	74	74	74	372
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	560	560	560	560	560	2,800
		LED Lamp - SCI	Energy Savings (MWh/year)	28	28	28	28	28	138
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1,085	1,085	1,085	1,085	1,085	5,425
		Lighting - Other - SCI	Energy Savings (MWh/year)	22	22	22	22	22	108
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Street & Area Lighting (Customer Owned) - SCI	Energy Savings (MWh/year)	1	1	1	1	1	3
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	1	1	1	1	1	5
		LED Reach in Refrig / Frzr Light - SCI	Energy Savings (MWh/year)	247	247	247	247	247	1,233
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	410	410	410	410	410	2,050
		Lighting - Custom - SCI	Energy Savings (MWh/year)	22	22	22	22	22	108
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Network Lighting Control - SCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	90	90	90	90	90	450
		Linear Lamp - MS - SCI	Energy Savings (MWh/year)	1,286	1,286	1,286	1,286	1,286	6,431
			Demand Reduction (MW)	0.3	0.3	0.3	0.3	0.3	1.7
			Projected Participation	50,000	50,000	50,000	50,000	50,000	250,000
		High/Low Bay Lamp - MS - SCI	Energy Savings (MWh/year)	1,738	1,738	1,738	1,738	1,738	8,689
			Demand Reduction (MW)	0.3	0.3	0.3	0.3	0.3	1.5
			Projected Participation	1,750	1,750	1,750	1,750	1,750	8,750
		LED Fixture - MS - SCI	Energy Savings (MWh/year)	176	176	176	176	176	882
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	2,000	2,000	2,000	2,000	2,000	10,000
		ECM Evap Fan Motor - SCI	Energy Savings (MWh/year)	24	24	24	24	24	118
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	15	15	15	15	15	75
		Evap Fan Controls - SCI	Energy Savings (MWh/year)	19	19	19	19	19	96
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	15	15	15	15	15	75
		Refrigerator - Reach In - SCI	Energy Savings (MWh/year)	18	18	18	18	18	91
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	40	40	40	40	40	200
		Freezer - Reach In - SCI	Energy Savings (MWh/year)	26	26	26	26	26	128
Demand Reduction (MW)	0.0		0.0	0.0	0.0	0.0	0.0		
Projected Participation	30		30	30	30	30	150		
Refrigerated Case Cover - SCI	Energy Savings (MWh/year)	6	6	6	6	6	31		
	Demand Reduction (MW)	-	-	-	-	-	-		
	Projected Participation	140	140	140	140	140	700		
Anti Sweat Heater Controls - SCI	Energy Savings (MWh/year)	28	28	28	28	28	141		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	40	40	40	40	40	200		

Appendix B, Table 8: Estimated Savings and Participation

West Penn

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Strip Curtain - SCI	Energy Savings (MWh/year)	80	80	80	80	80	398
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	450	450	450	450	450	2,250
		Ice Machine - SCI	Energy Savings (MWh/year)	2	2	2	2	2	12
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	5	5	5	5	5	25
		Beverage Vending Machine - Controls - SCI	Energy Savings (MWh/year)	7	7	7	7	7	35
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	5	5	5	5	5	25
		Beverage Vending Machine - Energy Star - SCI	Energy Savings (MWh/year)	28	28	28	28	28	141
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	20	20	20	20	20	100
		Steam Cooker - SCI	Energy Savings (MWh/year)	141	141	141	141	141	705
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	10	10	10	10	10	50
		Fryer - SCI	Energy Savings (MWh/year)	25	25	25	25	25	123
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	10	10	10	10	10	50
		Griddle - SCI	Energy Savings (MWh/year)	26	26	26	26	26	130
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	10	10	10	10	10	50
		Hot Food Holding Cabinet - SCI	Energy Savings (MWh/year)	17	17	17	17	17	87
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	10	10	10	10	10	50
		Combination Oven - SCI	Energy Savings (MWh/year)	91	91	91	91	91	453
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	5	5	5	5	5	25
		Convection Oven - SCI	Energy Savings (MWh/year)	10	10	10	10	10	48
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	5	5	5	5	5	25
		Dishwasher - SCI	Energy Savings (MWh/year)	3	3	3	3	3	15
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Induction Warmer/Rethermalizer Well - SCI	Energy Savings (MWh/year)	6	6	6	6	6	30
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	15	15	15	15	15	75
		Coffee Brewer - SCI	Energy Savings (MWh/year)	3	3	3	3	3	13
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	2	2	2	2	2	10
		Pre-Rinse Sprayer - SCI	Energy Savings (MWh/year)	151	151	151	151	151	753
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	315	315	315	315	315	1,575
		Agricultural Process Lighting	Energy Savings (MWh/year)	488	488	488	488	488	2,438
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	220	220	220	220	220	1,100
		Auto Milker Takeoff	Energy Savings (MWh/year)	11	11	11	11	11	54
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	25	25	25	25	25	125
		Dairy Scroll Compressor	Energy Savings (MWh/year)	19	19	19	19	19	97
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	20	20	20	20	20	100
		HE Ventilation Fans	Energy Savings (MWh/year)	195	195	195	195	195	974
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	200	200	200	200	200	1,000
		Heat Reclaimer	Energy Savings (MWh/year)	55	55	55	55	55	275
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	7	7	7	7	7	35
		High Volume Low Speed Fan	Energy Savings (MWh/year)	399	399	399	399	399	1,993
			Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	0.8
			Projected Participation	40	40	40	40	40	200
		Livestock Waterer	Energy Savings (MWh/year)	3	3	3	3	3	13
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	5	5	5	5	5	25
		Dairy Vac Pump VSD Control	Energy Savings (MWh/year)	776	776	776	776	776	3,879
			Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	0.8
			Projected Participation	40	40	40	40	40	200
		Low Pressure Irrigation	Energy Savings (MWh/year)	101	101	101	101	101	507
			Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	1.2
			Projected Participation	30	30	30	30	30	150
		Custom - Agricultural	Energy Savings (MWh/year)	10	10	10	10	10	49
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Dairy Refrigeration Tune-Up	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		Engine Block Heater Timer	Energy Savings (MWh/year)	6	6	6	6	6	30
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	8	8	8	8	8	40
		Street Lighting (Tariff / Utility Owned(EMU))	Energy Savings (MWh/year)	151	151	151	151	151	755
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	250	250	250	250	250	1,250
		Street Lighting (Tariff / Customer Owned(MU))	Energy Savings (MWh/year)	1	1	1	1	1	3
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	1	1	1	1	1	5
		Refrigerator Recycling - SCI	Energy Savings (MWh/year)	270	270	270	270	270	1,350
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
			Projected Participation	280	280	280	280	280	1,400
		Freezer Recycling - SCI	Energy Savings (MWh/year)	50	50	50	50	50	251
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	75	75	75	75	75	375
		Room Air Conditioner Recycling - SCI	Energy Savings (MWh/year)	6	6	6	6	6	28
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	50	50	50	50	50	250
		Dehumidifiers Recycling - SCI	Energy Savings (MWh/year)	5	5	5	5	5	23
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	10	10	10	10	10	50
		EV Charging Cord - Level 2 - SCI	Energy Savings (MWh/year)	0	0	0	0	0	2
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	15	15	15	15	15	75
		Clothes Washer Level 1&2 - SCI	Energy Savings (MWh/year)	6	6	6	6	6	32
Demand Reduction (MW)	0.0		0.0	0.0	0.0	0.0	0.0		
Projected Participation	45		45	45	45	45	225		
Clothes Washer Level 3 - SCI	Energy Savings (MWh/year)	0	0	0	0	0	2		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	3	3	3	3	3	15		
Clothes Dryer - SCI	Energy Savings (MWh/year)	1	1	1	1	1	7		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	90	90	90	90	90	450		

Appendix B, Table 8: Estimated Savings and Participation
West Penn

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total	
C&I Energy Solutions for Business Program - Small	Prescriptive Other - SCI	Refrigerator Level 1 & 2 - SCI	Energy Savings (MWh/year)	14	14	14	14	14	68	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	175	175	175	175	175	875	
		Refrigerator Level 3 - SCI	Energy Savings (MWh/year)	2	2	2	2	2	8	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	15	15	15	15	15	75	
		Water Heater - Heat Pump - SCI	Energy Savings (MWh/year)	35	35	35	35	35	175	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	45	45	45	45	45	225	
		Freezer - SCI	Energy Savings (MWh/year)	1	1	1	1	1	4	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	25	25	25	25	25	125	
		Dehumidifier - SCI	Energy Savings (MWh/year)	15	15	15	15	15	73	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	70	70	70	70	70	350	
		Water Cooler - SCI	Energy Savings (MWh/year)	0	0	0	0	0	1	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		Monitor - SCI	Energy Savings (MWh/year)	7	7	7	7	7	36	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	300	300	300	300	300	1,500	
		Computer - SCI	Energy Savings (MWh/year)	13	13	13	13	13	65	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	110	110	110	110	110	550	
		Uninterruptible Power Supply (UPS) - SCI	Energy Savings (MWh/year)	46	46	46	46	46	230	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	45	45	45	45	45	225	
		Imaging - SCI	Energy Savings (MWh/year)	51	51	51	51	51	253	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	215	215	215	215	215	1,075	
		Small Network - SCI	Energy Savings (MWh/year)	51	51	51	51	51	255	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	215	215	215	215	215	1,075	
		Advanced Pwr Strip - SCI	Energy Savings (MWh/year)	4	4	4	4	4	19	
			Demand Reduction (MW)	-	-	-	-	-	-	
			Projected Participation	45	45	45	45	45	225	
	Custom - SCI	Custom - Process Improvement - SCI	Energy Savings (MWh/year)	670	670	670	670	670	3,348	
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.4	
			Projected Participation	25	25	25	25	25	125	
		Custom - Compressed Air - SCI	Energy Savings (MWh/year)	196	196	196	196	196	981	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
			Projected Participation	2	2	2	2	2	10	
		Custom - Motors - Three Phase - SCI	Energy Savings (MWh/year)	156	156	156	156	156	781	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
			Projected Participation	7	7	7	7	7	35	
		Custom - Refrigeration - SCI	Energy Savings (MWh/year)	95	95	95	95	95	477	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		Custom - Equipment/Servers - SCI	Energy Savings (MWh/year)	36	36	36	36	36	180	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		Custom - HVAC/Chlr/Cntrls - SCI	Energy Savings (MWh/year)	367	367	367	367	367	1,835	
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.3	
			Projected Participation	10	10	10	10	10	50	
		Custom - VFDs < 10HP - SCI	Energy Savings (MWh/year)	414	414	414	414	414	2,069	
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.3	
			Projected Participation	70	70	70	70	70	350	
		Custom - VFDs > 10 HP - SCI	Energy Savings (MWh/year)	233	233	233	233	233	1,164	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	7	7	7	7	7	35	
		Custom - Bldg Improvements - SCI	Energy Savings (MWh/year)	1,964	1,964	1,964	1,964	1,964	9,822	
			Demand Reduction (MW)	0.6	0.6	0.6	0.6	0.6	2.8	
			Projected Participation	40	40	40	40	40	200	
		Custom - New Construction - SCI	Energy Savings (MWh/year)	32	32	32	32	32	160	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
			Projected Participation	1	1	1	1	1	5	
		Custom - Audit & Education - SCI	Energy Savings (MWh/year)	-	-	-	-	-	-	
			Demand Reduction (MW)	-	-	-	-	-	-	
			Projected Participation	1	1	1	1	1	5	
		Energy Management - SCI	Building Tune Up - SCI	Energy Savings (MWh/year)	3,103	6,205	6,205	6,205	6,205	27,924
				Demand Reduction (MW)	0.4	0.8	0.8	0.8	0.8	3.6
				Projected Participation	30	60	60	60	60	270
	Virtual/Meter Data Commissioning - SCI		Energy Savings (MWh/year)	98	130	130	130	130	619	
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
			Projected Participation	3	4	4	4	4	19	
Retrocommissioning - SCI	Energy Savings (MWh/year)		191	382	382	382	382	1,718		
	Demand Reduction (MW)		0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation		2	4	4	4	4	18		
Building Operations Training - SCI	Energy Savings (MWh/year)		109	218	218	218	218	981		
	Demand Reduction (MW)		0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation		2	4	4	4	4	18		
Energy Consultation - SCI	Energy Savings (MWh/year)		-	-	-	-	-	-		
	Demand Reduction (MW)		-	-	-	-	-	-		
	Projected Participation		2	2	2	2	2	10		
Audits - SCI	Energy Savings (MWh/year)		-	-	-	-	-	-		
	Demand Reduction (MW)		-	-	-	-	-	-		
	Projected Participation		1	1	1	1	1	5		

Appendix B, Table 8: Estimated Savings and Participation

West Penn

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	MF - Tenant - DI - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		MF - Tenant - Prescriptive - LCI	Energy Savings (MWh/year)	0	0	0	0	0	0
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		MF - Tenant - Custom - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		MF - Common - Prescriptive - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		MF - Common - Custom - LCI	Energy Savings (MWh/year)	10	10	10	10	10	49
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
		MF - Common - DI - LCI	Energy Savings (MWh/year)	5	5	5	5	5	26
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	1	1	1	1	1	5
	Prescriptive - LCI	Air Conditioning - Level 1 <=5.4 Tn - LCI	Energy Savings (MWh/year)	19	19	19	19	19	97
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	25	25	25	25	25	125
		Air Conditioning - Level 1 >5.4 < 20 Tn - LCI	Energy Savings (MWh/year)	80	80	80	80	80	401
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.3
			Projected Participation	110	110	110	110	110	550
		Air Conditioning - Level 1 >=20 Tn - LCI	Energy Savings (MWh/year)	38	38	38	38	38	189
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	20	20	20	20	20	100
		Heat Pump - Level 1 <=5.4 Tn - LCI	Energy Savings (MWh/year)	15	15	15	15	15	74
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	15	15	15	15	15	75
		Heat Pump - Water & GeoT - ES Tier 3 - LCI	Energy Savings (MWh/year)	11	11	11	11	11	57
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	5	5	5	5	5	25
		Ductless Mini-Split HP - Level 3 - LCI	Energy Savings (MWh/year)	43	43	43	43	43	217
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	75	75	75	75	75	375
	PTAC - LCI	Energy Savings (MWh/year)	24	24	24	24	24	118	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
		Projected Participation	250	250	250	250	250	1,250	
	PTHP - LCI	Energy Savings (MWh/year)	8	8	8	8	8	41	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0	
		Projected Participation	45	45	45	45	45	225	
	Room Air Conditioner - LCI	Energy Savings (MWh/year)	11	11	11	11	11	55	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
		Projected Participation	145	145	145	145	145	725	
	Smart Thermostat - Rebate - LCI	Energy Savings (MWh/year)	9	9	9	9	9	46	
		Demand Reduction (MW)	-	-	-	-	-	-	
		Projected Participation	50	50	50	50	50	250	
	HVAC - Custom - LCI	Energy Savings (MWh/year)	220	220	220	220	220	1,100	
		Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.3	
		Projected Participation	1	1	1	1	1	5	
	Circulating Pump (Mid Strm) - LCI	Energy Savings (MWh/year)	171	171	171	171	171	853	
		Demand Reduction (MW)	-	-	-	-	-	-	
		Projected Participation	215	215	215	215	215	1,075	
	HVAC - Maintenance - LCI	Energy Savings (MWh/year)	32	32	32	32	32	162	
		Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1	
Projected Participation		90	90	90	90	90	450		
Furnace Fan (Retrofit or New to ECM) - LCI	Energy Savings (MWh/year)	5	5	5	5	5	27		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	45	45	45	45	45	225		
Lighting Controls (Daylight & Occupancy) - LCI	Energy Savings (MWh/year)	1,922	1,922	1,922	1,922	1,922	9,611		
	Demand Reduction (MW)	0.5	0.5	0.5	0.5	0.5	2.5		
	Projected Participation	4,500	4,500	4,500	4,500	4,500	22,500		
Linear Fluorescent - LCI	Energy Savings (MWh/year)	237	237	237	237	237	1,186		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2		
	Projected Participation	2,000	2,000	2,000	2,000	2,000	10,000		
LED Linear - LCI	Energy Savings (MWh/year)	6,003	6,003	6,003	6,003	6,003	30,015		
	Demand Reduction (MW)	0.9	0.9	0.9	0.9	0.9	4.4		
	Projected Participation	45,000	45,000	45,000	45,000	45,000	225,000		
LED Channel Signage - LCI	Energy Savings (MWh/year)	462	462	462	462	462	2,308		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2		
	Projected Participation	1,250	1,250	1,250	1,250	1,250	6,250		
Exit Sign - LCI	Energy Savings (MWh/year)	143	143	143	143	143	714		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation	875	875	875	875	875	4,375		
LED Fixture External - LCI	Energy Savings (MWh/year)	1,122	1,122	1,122	1,122	1,122	5,612		
	Demand Reduction (MW)	-	-	-	-	-	-		
	Projected Participation	2,000	2,000	2,000	2,000	2,000	10,000		
LED Fixture Internal - LCI	Energy Savings (MWh/year)	199	199	199	199	199	996		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2		
	Projected Participation	1,500	1,500	1,500	1,500	1,500	7,500		
LED Lamp - LCI	Energy Savings (MWh/year)	102	102	102	102	102	508		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1		
	Projected Participation	4,000	4,000	4,000	4,000	4,000	20,000		
Lighting - Other - LCI	Energy Savings (MWh/year)	22	22	22	22	22	108		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Street & Area Lighting (Customer Owned) - LCI	Energy Savings (MWh/year)	1	1	1	1	1	3		
	Demand Reduction (MW)	-	-	-	-	-	-		
	Projected Participation	1	1	1	1	1	5		
LED Reach in Refrig / Frzr Light - LCI	Energy Savings (MWh/year)	301	301	301	301	301	1,504		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2		
	Projected Participation	500	500	500	500	500	2,500		
Lighting - Custom - LCI	Energy Savings (MWh/year)	22	22	22	22	22	108		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Network Lighting Control - LCI	Energy Savings (MWh/year)	0	0	0	0	0	2		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	275	275	275	275	275	1,375		
Linear Lamp - MS - LCI	Energy Savings (MWh/year)	2,573	2,573	2,573	2,573	2,573	12,863		
	Demand Reduction (MW)	0.7	0.7	0.7	0.7	0.7	3.4		
	Projected Participation	100,000	100,000	100,000	100,000	100,000	500,000		
High/Low Bay Lamp - MS - LCI	Energy Savings (MWh/year)	6,455	6,455	6,455	6,455	6,455	32,275		
	Demand Reduction (MW)	1.1	1.1	1.1	1.1	1.1	5.7		
	Projected Participation	6,500	6,500	6,500	6,500	6,500	32,500		
LED Fixture - MS - LCI	Energy Savings (MWh/year)	485	485	485	485	485	2,426		
	Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.6		
	Projected Participation	5,500	5,500	5,500	5,500	5,500	27,500		

Appendix B, Table 8: Estimated Savings and Participation

West Penn

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total
		ECM Evap Fan Motor - LCI	Energy Savings (MWh/year)	24	24	24	24	24	118
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	15	15	15	15	15	75
		Evap Fan Controls - LCI	Energy Savings (MWh/year)	19	19	19	19	19	96
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	15	15	15	15	15	75
		Refrigerator - Reach In - LCI	Energy Savings (MWh/year)	36	36	36	36	36	181
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	80	80	80	80	80	400
		Freezer - Reach In - LCI	Energy Savings (MWh/year)	21	21	21	21	21	106
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	25	25	25	25	25	125
		Refrigerated Case Cover - LCI	Energy Savings (MWh/year)	6	6	6	6	6	30
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	135	135	135	135	135	675
		Anti Sweat Heater Control - LCI	Energy Savings (MWh/year)	28	28	28	28	28	141
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	40	40	40	40	40	200
		Strip Curtain - LCI	Energy Savings (MWh/year)	76	76	76	76	76	381
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	430	430	430	430	430	2,150
		Ice Machine - LCI	Energy Savings (MWh/year)	7	7	7	7	7	36
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	15	15	15	15	15	75
		Beverage Vending Machine - Controls - LCI	Energy Savings (MWh/year)	7	7	7	7	7	35
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	5	5	5	5	5	25
		Beverage Vending Machine - Energy Star - LCI	Energy Savings (MWh/year)	28	28	28	28	28	141
			Demand Reduction (MW)	-	-	-	-	-	-
			Projected Participation	20	20	20	20	20	100
		Steam Cooker - LCI	Energy Savings (MWh/year)	141	141	141	141	141	705
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	10	10	10	10	10	50
		Fryer - LCI	Energy Savings (MWh/year)	25	25	25	25	25	123
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	10	10	10	10	10	50
		Griddle - LCI	Energy Savings (MWh/year)	26	26	26	26	26	130
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	10	10	10	10	10	50
		Hot Food Holding Cabinet - LCI	Energy Savings (MWh/year)	17	17	17	17	17	87
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0
			Projected Participation	10	10	10	10	10	50
		Combination Oven - LCI	Energy Savings (MWh/year)	91	91	91	91	91	453
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
			Projected Participation	5	5	5	5	5	25
Convection Oven - LCI	Energy Savings (MWh/year)	10	10	10	10	10	48		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	5	5	5	5	5	25		
Dishwasher - LCI	Energy Savings (MWh/year)	3	3	3	3	3	15		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Induction Warmer/Rethermalizer Well - LCI	Energy Savings (MWh/year)	6	6	6	6	6	30		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	15	15	15	15	15	75		
Coffee Brewer - LCI	Energy Savings (MWh/year)	3	3	3	3	3	13		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	2	2	2	2	2	10		
Pre-Rinse Sprayer - LCI	Energy Savings (MWh/year)	43	43	43	43	43	215		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	90	90	90	90	90	450		
Refrigerator Recycling - LCI	Energy Savings (MWh/year)	5	5	5	5	5	24		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	5	5	5	5	5	25		
Freezer Recycling - LCI	Energy Savings (MWh/year)	1	1	1	1	1	3		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Room Air Conditioner Recycling - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		
Dehumidifiers Recycling - LCI	Energy Savings (MWh/year)	0	0	0	0	0	2		
	Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
	Projected Participation	1	1	1	1	1	5		

Appendix B, Table 8: Estimated Savings and Participation

West Penn

Program	Sub-Program	Measure	Metric	PY13	PY14	PY15	PY16	PY17	Total		
		EV Charging Cord - Level 2 - LCI	Energy Savings (MWh/year)	0	0	0	0	0	2		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	15	15	15	15	15	75		
		Clothes Washer Level 1&2 - LCI	Energy Savings (MWh/year)	7	7	7	7	7	36		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	50	50	50	50	50	250		
		Clothes Washer Level 3 - LCI	Energy Savings (MWh/year)	1	1	1	1	1	4		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	5	5	5	5	5	25		
		Clothes Dryer - LCI	Energy Savings (MWh/year)	1	1	1	1	1	7		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	90	90	90	90	90	450		
		Refrigerator Level 1&2 - LCI	Energy Savings (MWh/year)	29	29	29	29	29	145		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	375	375	375	375	375	1,875		
		Refrigerator Level 3 - LCI	Energy Savings (MWh/year)	4	4	4	4	4	18		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	35	35	35	35	35	175		
		Water Heater - Heat Pump - LCI	Energy Savings (MWh/year)	35	35	35	35	35	175		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	45	45	45	45	45	225		
		Freezer - LCI	Energy Savings (MWh/year)	1	1	1	1	1	4		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	25	25	25	25	25	125		
		Dehumidifier - LCI	Energy Savings (MWh/year)	15	15	15	15	15	73		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	70	70	70	70	70	350		
		Water Cooler - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	1	1	1	1	1	5		
		Monitor - LCI	Energy Savings (MWh/year)	0	0	0	0	0	1		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	5	5	5	5	5	25		
		Computer - LCI	Energy Savings (MWh/year)	1	1	1	1	1	3		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	5	5	5	5	5	25		
		Uninterruptible Power Supply (UPS) - LCI	Energy Savings (MWh/year)	5	5	5	5	5	26		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	5	5	5	5	5	25		
		Imaging - LCI	Energy Savings (MWh/year)	1	1	1	1	1	6		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	5	5	5	5	5	25		
		Small Network - LCI	Energy Savings (MWh/year)	1	1	1	1	1	6		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	5	5	5	5	5	25		
Advanced Pwr Strip - LCI	Energy Savings (MWh/year)	0	0	0	0	0	2				
	Demand Reduction (MW)	-	-	-	-	-	-				
	Projected Participation	5	5	5	5	5	25				
Custom - LCI		Custom - Process Improvement - LCI	Energy Savings (MWh/year)	5,913	5,913	5,913	5,913	5,913	29,566		
			Demand Reduction (MW)	0.7	0.7	0.7	0.7	0.7	3.6		
			Projected Participation	30	30	30	30	30	150		
		Custom - Compressed Air - LCI	Energy Savings (MWh/year)	270	270	270	270	270	1,348		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2		
			Projected Participation	1	1	1	1	1	5		
		Custom - Motors - Three Phase - LCI	Energy Savings (MWh/year)	1,217	1,217	1,217	1,217	1,217	6,084		
			Demand Reduction (MW)	0.2	0.2	0.2	0.2	0.2	0.8		
			Projected Participation	9	9	9	9	9	45		
		Custom - Refrigeration - LCI	Energy Savings (MWh/year)	127	127	127	127	127	635		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	1	1	1	1	1	5		
		Custom - Equipment/Servers - LCI	Energy Savings (MWh/year)	180	180	180	180	180	902		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1		
			Projected Participation	1	1	1	1	1	5		
		Custom - HVAC/Chlr/Cntrls - LCI	Energy Savings (MWh/year)	1,980	1,980	1,980	1,980	1,980	9,900		
			Demand Reduction (MW)	0.6	0.6	0.6	0.6	0.6	2.8		
			Projected Participation	9	9	9	9	9	45		
		Custom - VFDs < 10HP - LCI	Energy Savings (MWh/year)	195	195	195	195	195	976		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2		
			Projected Participation	33	33	33	33	33	165		
		Custom - VFDs > 10 HP - LCI	Energy Savings (MWh/year)	332	332	332	332	332	1,662		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.0		
			Projected Participation	10	10	10	10	10	50		
		Custom - Bldg Improvements - LCI	Energy Savings (MWh/year)	393	393	393	393	393	1,964		
			Demand Reduction (MW)	0.1	0.1	0.1	0.1	0.1	0.6		
			Projected Participation	8	8	8	8	8	40		
		Custom - New Construction - LCI	Energy Savings (MWh/year)	56	56	56	56	56	282		
			Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1		
			Projected Participation	1	1	1	1	1	5		
		Custom - Audit & Education - LCI	Energy Savings (MWh/year)	-	-	-	-	-	-		
			Demand Reduction (MW)	-	-	-	-	-	-		
			Projected Participation	1	1	1	1	1	5		
		Energy Management - LCI		Building Tune Up - LCI	Energy Savings (MWh/year)	797	797	797	1,196	1,196	4,785
					Demand Reduction (MW)	0.2	0.2	0.2	0.3	0.3	1.1
					Projected Participation	2	2	2	3	3	12
				Virtual/Meter Data Commissioning - LCI	Energy Savings (MWh/year)	98	196	196	196	196	880
					Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.1
					Projected Participation	3	6	6	6	6	27
				Retrocommissioning - LCI	Energy Savings (MWh/year)	1,065	1,065	1,065	1,065	1,065	5,325
					Demand Reduction (MW)	0.3	0.3	0.3	0.3	0.3	1.4
					Projected Participation	2	2	2	2	2	10
				Building Operations Training - LCI	Energy Savings (MWh/year)	163	327	327	327	327	1,471
					Demand Reduction (MW)	0.0	0.0	0.0	0.0	0.0	0.2
					Projected Participation	3	6	6	6	6	27
Energy Consultation - LCI	Energy Savings (MWh/year)			-	-	-	-	-	-		
	Demand Reduction (MW)			-	-	-	-	-	-		
	Projected Participation			1	1	1	1	1	5		
Audits - LCI	Energy Savings (MWh/year)			-	-	-	-	-	-		
	Demand Reduction (MW)			-	-	-	-	-	-		
	Projected Participation			1	1	1	1	1	5		

Appendix B, Table 9-1: Program Budget							
West Penn							
Energy Efficient Products Program							
Cost Element	PY13	PY14	PY15	PY16	PY17	Phase IV Total	
Total Budget (\$000)		\$3,018	\$2,935	\$2,931	\$2,929	\$2,928	\$14,742
Incentives (\$000)	Rebates	\$1,191	\$1,191	\$1,191	\$1,191	\$1,191	\$5,954
	Upstream/Midstream Buydown	\$52	\$52	\$52	\$52	\$52	\$258
	Kits	\$0	\$0	\$0	\$0	\$0	\$0
	Direct Install Materials & Labor	\$0	\$0	\$0	\$0	\$0	\$0
	Incentive Total	\$1,242	\$1,242	\$1,242	\$1,242	\$1,242	\$6,212
Non-Incentives (\$000)	Program Design	\$21	\$22	\$21	\$21	\$21	\$107
	Administrative	\$278	\$221	\$217	\$216	\$215	\$1,146
	EDC Delivery Costs	\$0	\$0	\$0	\$0	\$0	\$0
	CSP Delivery Fees	\$992	\$981	\$981	\$981	\$981	\$4,917
	Marketing	\$362	\$364	\$364	\$364	\$364	\$1,820
	EM&V	\$108	\$105	\$105	\$105	\$104	\$526
	Other ¹	\$14	\$0	\$0	\$0	\$0	\$14
	Non-Incentive Total	\$1,776	\$1,693	\$1,688	\$1,687	\$1,686	\$8,530
Percent Incentives		41%	42%	42%	42%	42%	42%

Appendix B, Table 9-2: Program Budget							
West Penn							
Energy Efficient Homes Program							
Cost Element	PY13	PY14	PY15	PY16	PY17	Phase IV Total	
Total Budget (\$000)		\$4,720	\$4,959	\$4,954	\$4,952	\$4,951	\$24,535
Incentives (\$000)	Rebates	\$808	\$858	\$858	\$858	\$858	\$4,241
	Upstream/Midstream Buydown	\$0	\$0	\$0	\$0	\$0	\$0
	Kits	\$2,201	\$2,201	\$2,201	\$2,201	\$2,201	\$11,005
	Direct Install Materials & Labor	\$19	\$33	\$33	\$33	\$33	\$153
	Incentive Total	\$3,028	\$3,093	\$3,093	\$3,093	\$3,093	\$15,399
Non-Incentives (\$000)	Program Design	\$20	\$25	\$25	\$25	\$25	\$120
	Administrative	\$272	\$256	\$251	\$250	\$249	\$1,278
	EDC Delivery Costs	\$0	\$0	\$0	\$0	\$0	\$0
	CSP Delivery Fees	\$960	\$1,138	\$1,138	\$1,138	\$1,138	\$5,511
	Marketing	\$258	\$270	\$270	\$270	\$270	\$1,338
	EM&V	\$168	\$177	\$177	\$177	\$177	\$875
	Other ¹	\$14	\$0	\$0	\$0	\$0	\$14
	Non-Incentive Total	\$1,692	\$1,866	\$1,861	\$1,860	\$1,858	\$9,137
Percent Incentives		64%	62%	62%	62%	62%	63%

Appendix B, Table 9-3: Program Budget							
West Penn							
Low Income Energy Efficiency Program							
Cost Element	PY13	PY14	PY15	PY16	PY17	Phase IV Total	
Total Budget (\$000)	\$3,308	\$3,170	\$3,178	\$3,167	\$3,176	\$15,998	
Incentives (\$000)	Rebates	\$147	\$147	\$147	\$147	\$147	\$737
	Upstream/Midstream Buydown	\$0	\$0	\$0	\$0	\$0	\$0
	Kits	\$527	\$527	\$527	\$527	\$527	\$2,636
	Direct Install Materials & Labor	\$1,505	\$1,505	\$1,505	\$1,505	\$1,505	\$7,525
	Incentive Total	\$2,180	\$2,180	\$2,180	\$2,180	\$2,180	\$10,899
Non-Incentives (\$000)	Program Design	\$13	\$12	\$13	\$12	\$13	\$63
	Administrative	\$177	\$128	\$127	\$125	\$126	\$683
	EDC Delivery Costs	\$0	\$0	\$0	\$0	\$0	\$0
	CSP Delivery Fees	\$623	\$550	\$558	\$550	\$558	\$2,839
	Marketing	\$188	\$186	\$187	\$186	\$187	\$934
	EM&V	\$118	\$113	\$113	\$113	\$113	\$571
	Other ¹	\$9	\$0	\$0	\$0	\$0	\$9
	Non-Incentive Total	\$1,129	\$990	\$998	\$987	\$996	\$5,099
Percent Incentives	66%	69%	69%	69%	69%	68%	

Appendix B, Table 9-4: Program Budget							
West Penn							
C&I Energy Solutions for Business Program - Small							
Cost Element ²	PY13	PY14	PY15	PY16	PY17	Phase IV Total	
Total Budget (\$000)	\$6,207	\$7,099	\$7,093	\$7,091	\$7,089	\$34,579	
Incentives (\$000)	Rebates	\$1,795	\$1,828	\$1,828	\$1,828	\$1,828	\$9,109
	Upstream/Midstream Buydown	\$232	\$232	\$232	\$232	\$232	\$1,158
	Kits	\$0	\$0	\$0	\$0	\$0	\$0
	Direct Install Materials & Labor	\$1,617	\$2,655	\$2,655	\$2,655	\$2,655	\$12,237
	Incentive Total	\$3,644	\$4,715	\$4,715	\$4,715	\$4,715	\$22,503
Non-Incentives (\$000)	Program Design	\$30	\$30	\$30	\$30	\$30	\$151
	Administrative	\$407	\$309	\$304	\$302	\$301	\$1,623
	EDC Delivery Costs	\$0	\$0	\$0	\$0	\$0	\$0
	CSP Delivery Fees	\$1,667	\$1,576	\$1,576	\$1,576	\$1,576	\$7,972
	Marketing	\$216	\$215	\$215	\$215	\$215	\$1,075
	EM&V	\$221	\$253	\$253	\$253	\$253	\$1,234
	Other ¹	\$21	\$0	\$0	\$0	\$0	\$21
Non-Incentive Total	\$2,563	\$2,384	\$2,378	\$2,376	\$2,374	\$12,075	
Percent Incentives	59%	66%	66%	66%	67%	65%	

Appendix B, Table 9-5: Program Budget

West Penn

C&I Energy Solutions for Business Program - Large

Cost Element		PY13	PY14	PY15	PY16	PY17	Phase IV Total
Total Budget (\$000)		\$5,913	\$5,422	\$5,417	\$5,575	\$5,574	\$27,902
Incentives (\$000)	Rebates	\$2,342	\$2,369	\$2,369	\$2,369	\$2,369	\$11,817
	Upstream/Midstream Buydown	\$714	\$714	\$714	\$714	\$714	\$3,568
	Kits	\$0	\$0	\$0	\$0	\$0	\$0
	Direct Install Materials & Labor	\$249	\$249	\$249	\$373	\$373	\$1,493
	Incentive Total	\$3,305	\$3,331	\$3,331	\$3,455	\$3,455	\$16,877
Non-Incentives (\$000)	Program Design	\$31	\$27	\$27	\$27	\$27	\$139
	Administrative	\$417	\$275	\$270	\$273	\$272	\$1,508
	EDC Delivery Costs	\$0	\$0	\$0	\$0	\$0	\$0
	CSP Delivery Fees	\$1,773	\$1,453	\$1,453	\$1,478	\$1,478	\$7,635
	Marketing	\$154	\$142	\$142	\$143	\$143	\$725
	EM&V	\$211	\$193	\$193	\$199	\$199	\$996
	Other ¹	\$21	\$0	\$0	\$0	\$0	\$21
Non-Incentive Total	\$2,608	\$2,091	\$2,086	\$2,121	\$2,119	\$11,024	
Percent Incentives		56%	61%	61%	62%	62%	60%

¹ Includes External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 10-1: Sector-Specific Summary of EE&C Costs												
West Penn												
Residential Portfolio (including Low Income)												
EE&C Program	Cost Elements (\$)								Total Cost	Expected Acquisition Cost (\$/MWh)	Levelized Cost (\$/MWh)	Expected Acquisition Cost (\$/MW)
	Incentives	Program Design	Administrative	EDC Delivery Costs	CSP Delivery Fees	Marketing	EM&V	Other (Describe)				
<i>Energy Efficient Products Program</i>	\$6,212	-	-	-	\$4,917	\$1,525	\$526	-	\$13,180	\$0.25	\$0.34	\$1,027
<i>Energy Efficient Homes Program</i>	\$15,399	-	-	-	\$5,511	\$1,008	\$875	-	\$22,793	\$0.26	\$0.20	\$1,467
<i>Low Income Energy Efficiency Program</i>	\$10,899	-	-	-	\$2,839	\$759	\$571	-	\$15,068	\$0.53	\$0.38	\$3,382
Sector Total	\$32,509	\$0	\$0	\$0	\$13,267	\$3,292	\$1,972	\$0	\$51,041	\$1	\$0.92	\$5,875

Appendix B, Table 10-2: Sector-Specific Summary of EE&C Costs												
West Penn												
Small Commercial & Industrial ¹												
EE&C Program	Cost Elements (\$)								Total Cost	Expected Acquisition Cost (\$/MWh)	Levelized Cost (\$/MWh)	Expected Acquisition Cost (\$/MW)
	Incentives	Program Design	Administrative	EDC Delivery Costs	CSP Delivery Fees	Marketing	EM&V	Other (Describe)				
<i>C&I Energy Solutions for Business Program - Small</i>	\$22,503	-	-	-	\$7,972	\$659	\$1,234	-	\$32,368	\$0.26	\$0.23	\$1,265
Sector Total	\$22,503	\$0	\$0	\$0	\$7,972	\$659	\$1,234	\$0	\$32,368	\$0	\$0.23	\$1,265

Appendix B, Table 10-3: Sector-Specific Summary of EE&C Costs												
West Penn												
Large Commercial & Industrial												
EE&C Program	Cost Elements (\$)								Total Cost	Expected Acquisition Cost (\$/MWh)	Levelized Cost (\$/MWh)	Expected Acquisition Cost (\$/MW)
	Incentives	Program Design	Administrative	EDC Delivery Costs	CSP Delivery Fees	Marketing	EM&V	Other (Describe)				
<i>C&I Energy Solutions for Business Program - Large</i>	\$16,877	-	-	-	\$7,635	\$341	\$996	-	\$25,849	\$0.15	\$0.17	\$850
Sector Total	\$16,877	\$0	\$0	\$0	\$7,635	\$341	\$996	\$0	\$25,849	\$0	\$0.17	\$850

¹ Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 11: Allocation of Common Costs to Applicable Customer Sector

West Penn

Common Cost Element	Total Cost (\$000)	Basis for Cost Allocation ³	Sector Cost Allocation (\$000)		
			Residential (Including Low Income)	Commercial & Industrial - Small	Commercial & Industrial - Large
Program Design	\$580	See Footnote 3	\$290	\$151	\$139
Administrative	\$6,238	See Footnote 3	\$3,107	\$1,623	\$1,508
Marketing ¹	\$1,600	See Footnote 3	\$800	\$416	\$384
Other (Describe) ²	\$80	See Footnote 3	\$37	\$21	\$21
Totals	\$8,498		\$4,235	\$2,211	\$2,053

¹ Includes Utility Marketing/General Awareness

² Includes External Legal

³ Ratio of each programs specific delivery and marketing costs

Appendix B, Table 12: Summary of Portfolio EE&C Costs

West Penn			
Portfolio	Total Sector Portfolio-specific Costs	Total Common Costs	Total of All Costs
<i>Residential (Including Low Income)</i>	\$51,041	\$4,235	\$55,275
<i>Commercial/Industrial -- Small¹</i>	\$32,368	\$2,211	\$34,579
<i>Commercial/Industrial -- Large</i>	\$25,849	\$2,053	\$27,902
Totals	\$109,257	\$8,498	\$117,756

¹ Includes projected participation of Low Income households living in Multifamily housing.

Appendix B, Table 13-1: TRC Benefits Table (Gross)

West Penn

Portfolio	Program Year	NTGR & TRC Ratio		TRC Costs By Program Per Year (\$000)				TRC Benefits By Program Per Year (\$000)				
		NTGR	TRC	Incremental Measure Cost		Program Administration Cost	Total TRC Costs	Capacity Benefits	Energy Benefits	Fossil Fuel Benefits	O&M and Water Benefits	Total TRC Benefits
				Paid by EDC	Paid by Participants							
<i>Energy Efficient Products Program</i>	PY13	1.0	0.8	\$1,490	\$2,030	\$1,776	\$5,296	\$1,256	\$2,624	\$12	\$328	\$4,222
	PY14	1.0	0.8	\$1,339	\$1,933	\$1,693	\$4,964	\$1,217	\$2,575	\$12	\$313	\$4,116
	PY15	1.0	0.9	\$1,195	\$1,841	\$1,688	\$4,724	\$1,182	\$2,541	\$12	\$297	\$4,033
	PY16	1.0	0.9	\$1,058	\$1,753	\$1,687	\$4,498	\$1,148	\$2,520	\$12	\$283	\$3,963
	PY17	1.0	0.9	\$927	\$1,670	\$1,686	\$4,283	\$1,116	\$2,503	\$12	\$269	\$3,899
Energy Efficient Products Program Total		1.0	0.9	\$6,008	\$9,228	\$8,530	\$23,766	\$5,919	\$12,762	\$61	\$1,491	\$20,233
<i>Energy Efficient Homes Program</i>	PY13	1.0	1.3	\$3,047	\$730	\$1,692	\$5,469	\$1,845	\$4,827	\$19	\$451	\$7,142
	PY14	1.0	1.3	\$2,813	\$695	\$1,866	\$5,375	\$1,788	\$4,756	\$19	\$429	\$6,992
	PY15	1.0	1.3	\$2,591	\$662	\$1,861	\$5,114	\$1,737	\$4,700	\$19	\$408	\$6,864
	PY16	1.0	1.4	\$2,379	\$631	\$1,860	\$4,869	\$1,687	\$4,650	\$19	\$389	\$6,744
	PY17	1.0	1.4	\$2,178	\$601	\$1,858	\$4,637	\$1,639	\$4,598	\$18	\$370	\$6,626
Energy Efficient Homes Program Total		1.0	1.3	\$13,009	\$3,319	\$9,137	\$25,464	\$8,696	\$23,531	\$94	\$2,047	\$34,368
<i>Low Income Energy Efficiency Program</i>	PY13	1.0	0.6	\$2,523	\$36	\$1,129	\$3,687	\$518	\$1,670	\$1	\$21	\$2,210
	PY14	1.0	0.6	\$2,355	\$34	\$990	\$3,379	\$502	\$1,644	\$1	\$20	\$2,167
	PY15	1.0	0.7	\$2,195	\$32	\$998	\$3,226	\$488	\$1,625	\$1	\$19	\$2,133
	PY16	1.0	0.7	\$2,045	\$31	\$987	\$3,062	\$474	\$1,609	\$1	\$18	\$2,102
	PY17	1.0	0.7	\$1,899	\$29	\$996	\$2,925	\$460	\$1,593	\$1	\$17	\$2,072
Low Income Energy Efficiency Program Total		1.0	0.7	\$11,017	\$162	\$5,099	\$16,279	\$2,443	\$8,141	\$4	\$95	\$10,683
<i>C&I Energy Solutions for Business Program - Small</i>	PY13	1.0	1.1	\$3,644	\$4,959	\$2,563	\$11,165	\$3,758	\$8,508	\$0	\$550	\$12,816
	PY14	1.0	1.2	\$3,357	\$4,722	\$2,384	\$10,463	\$3,644	\$8,370	\$0	\$524	\$12,537
	PY15	1.0	1.2	\$3,084	\$4,498	\$2,378	\$9,959	\$3,540	\$8,256	\$0	\$498	\$12,294
	PY16	1.0	1.3	\$2,824	\$4,283	\$2,376	\$9,483	\$3,438	\$8,158	\$0	\$474	\$12,071
	PY17	1.0	1.3	\$2,577	\$4,079	\$2,374	\$9,030	\$3,340	\$8,065	\$0	\$451	\$11,857
C&I Energy Solutions for Business Program - Small Total		1.0	1.2	\$15,485	\$22,541	\$12,075	\$50,101	\$17,720	\$41,356	\$2	\$2,497	\$61,574
<i>C&I Energy Solutions for Business Program - Large</i>	PY13	1.0	1.5	\$3,305	\$6,965	\$2,608	\$12,878	\$4,972	\$13,222	\$0	\$1,299	\$19,493
	PY14	1.0	1.6	-\$1,177	\$6,634	\$6,317	\$11,773	\$4,821	\$13,010	\$0	\$1,236	\$19,067
	PY15	1.0	1.7	\$2,804	\$6,318	\$2,086	\$11,208	\$4,683	\$12,834	\$0	\$1,176	\$18,693
	PY16	1.0	1.7	\$2,566	\$6,017	\$2,121	\$10,704	\$4,549	\$12,679	\$0	\$1,119	\$18,347
	PY17	1.0	1.8	\$2,343	\$5,730	\$2,119	\$10,193	\$4,419	\$12,529	\$0	\$1,064	\$18,013
C&I Energy Solutions for Business Program - Large Total		1.0	1.6	\$9,842	\$31,664	\$15,250	\$56,755	\$23,445	\$64,273	\$2	\$5,893	\$93,612
Total			1.3	\$55,361	\$66,914	\$50,091	\$172,365	\$58,223	\$150,063	\$163	\$12,023	\$220,471

Appendix B, Table 13-2: TRC Benefits Table (Net)

West Penn

Portfolio	NTGR & TRC Ratio			TRC Costs By Program Per Year (\$000)				TRC Benefits By Program Per Year (\$000)				
	Program Year	NTGR	TRC	Incremental Measure Cost		Program Administration Cost	Total TRC Costs	Capacity Benefits	Energy Benefits	Fossil Fuel Benefits	O&M and Water Benefits	Total TRC Benefits
				Paid by EDC	Paid by Participants							
<i>Energy Efficient Products Program</i>	PY13	0.5	0.6	\$1,490	\$664	\$1,776	\$3,930	\$636	\$1,308	\$6	\$328	\$2,279
	PY14	0.5	0.6	\$1,339	\$632	\$1,693	\$3,664	\$616	\$1,283	\$6	\$313	\$2,218
	PY15	0.5	0.6	\$1,195	\$602	\$1,688	\$3,485	\$599	\$1,267	\$6	\$297	\$2,169
	PY16	0.5	0.6	\$1,058	\$574	\$1,687	\$3,318	\$581	\$1,256	\$6	\$283	\$2,126
	PY17	0.5	0.7	\$927	\$546	\$1,686	\$3,159	\$565	\$1,247	\$6	\$269	\$2,087
Energy Efficient Products Program Total	0.5	0.6	\$6,008	\$3,019	\$8,530	\$17,557	\$2,997	\$6,361	\$31	\$1,491	\$10,880	
<i>Energy Efficient Homes Program</i>	PY13	0.8	1.1	\$3,047	\$333	\$1,692	\$5,072	\$1,371	\$3,568	\$14	\$451	\$5,405
	PY14	0.8	1.1	\$2,813	\$317	\$1,866	\$4,996	\$1,329	\$3,514	\$14	\$429	\$5,286
	PY15	0.8	1.1	\$2,591	\$302	\$1,861	\$4,754	\$1,291	\$3,472	\$14	\$408	\$5,185
	PY16	0.8	1.1	\$2,379	\$288	\$1,860	\$4,526	\$1,254	\$3,434	\$14	\$389	\$5,091
	PY17	0.8	1.2	\$2,178	\$274	\$1,858	\$4,310	\$1,218	\$3,396	\$13	\$370	\$4,997
Energy Efficient Homes Program Total	0.9	1.1	\$13,009	\$1,513	\$9,137	\$23,659	\$6,464	\$17,383	\$69	\$2,047	\$25,964	
<i>Low Income Energy Efficiency Program</i>	PY13	1.0	0.6	\$2,523	\$36	\$1,129	\$3,687	\$518	\$1,670	\$1	\$21	\$2,210
	PY14	1.0	0.6	\$2,355	\$34	\$990	\$3,379	\$502	\$1,644	\$1	\$20	\$2,167
	PY15	1.0	0.7	\$2,195	\$32	\$998	\$3,226	\$488	\$1,625	\$1	\$19	\$2,133
	PY16	1.0	0.7	\$2,045	\$31	\$987	\$3,062	\$474	\$1,609	\$1	\$18	\$2,102
	PY17	1.0	0.7	\$1,899	\$29	\$996	\$2,925	\$460	\$1,593	\$1	\$17	\$2,072
Low Income Energy Efficiency Program Total	1.0	0.7	\$11,017	\$162	\$5,099	\$16,279	\$2,443	\$8,141	\$4	\$95	\$10,683	
<i>C&I Energy Solutions for Business Program - Small</i>	PY13	0.7	1.1	\$3,644	\$2,427	\$2,563	\$8,634	\$2,554	\$6,067	\$0	\$550	\$9,172
	PY14	0.7	1.1	\$3,357	\$2,312	\$2,384	\$8,052	\$2,476	\$5,969	\$0	\$524	\$8,969
	PY15	0.7	1.1	\$3,084	\$2,202	\$2,378	\$7,663	\$2,406	\$5,888	\$0	\$498	\$8,792
	PY16	0.7	1.2	\$2,824	\$2,097	\$2,376	\$7,297	\$2,337	\$5,818	\$0	\$474	\$8,629
	PY17	0.7	1.2	\$2,577	\$1,997	\$2,374	\$6,948	\$2,270	\$5,751	\$0	\$451	\$8,473
C&I Energy Solutions for Business Program - Small Total	0.7	1.1	\$15,485	\$11,035	\$12,075	\$38,594	\$12,043	\$29,494	\$1	\$2,497	\$44,035	
<i>C&I Energy Solutions for Business Program - Large</i>	PY13	0.7	1.4	\$3,305	\$4,331	\$2,608	\$10,243	\$3,636	\$9,706	\$0	\$1,299	\$14,641
	PY14	0.7	1.5	-\$1,177	\$4,125	\$6,317	\$9,264	\$3,526	\$9,550	\$0	\$1,236	\$14,311
	PY15	0.7	1.6	\$2,804	\$3,928	\$2,086	\$8,818	\$3,425	\$9,420	\$0	\$1,176	\$14,021
	PY16	0.7	1.6	\$2,566	\$3,741	\$2,121	\$8,428	\$3,327	\$9,306	\$0	\$1,119	\$13,752
	PY17	0.7	1.7	\$2,343	\$3,563	\$2,119	\$8,025	\$3,232	\$9,195	\$0	\$1,064	\$13,492
C&I Energy Solutions for Business Program - Large Total	0.7	1.6	\$9,842	\$19,687	\$15,250	\$44,779	\$17,145	\$47,178	\$1	\$5,893	\$70,217	
Total		1.1	\$55,361	\$35,416	\$50,091	\$140,867	\$41,093	\$108,557	\$105	\$12,023	\$161,778	

**Appendix C:
Company Program Tables**

Appendix C, Table 1-1: Program Cost by Program Year

West Penn Program Year 13

Program	Sub-Program	Incentives (\$000)					Non-Incentives (\$000)						Totals
		Rebates	Upstream/Midstream/Buildout	Kits	Direct Install Materials & Labor	Program Design	Administrative	Delivery Fees	Marketing	EM&V	Other ¹		
Energy Efficient Products Program	Appliance Recycling	\$352	\$0	\$0	\$0	\$13	\$179	\$643	\$185	\$51	\$9	\$1,433	
	Appliance Rebate	\$594	\$0	\$0	\$0	\$3	\$40	\$175	\$75	\$33	\$2	\$921	
	Consumer Electronics	\$0	\$52	\$0	\$0	\$0	\$4	\$16	\$2	\$3	\$0	\$77	
	HVAC	\$246	\$0	\$0	\$0	\$4	\$56	\$158	\$100	\$21	\$3	\$587	
	Subtotal	\$1,191	\$52	\$0	\$0	\$21	\$278	\$992	\$362	\$108	\$14	\$3,018	
Energy Efficient Homes Program	Comprehensive Audits	\$50	\$0	\$0	\$0	\$2	\$27	\$79	\$46	\$8	\$1	\$213	
	Behavioral	\$0	\$0	\$0	\$0	\$7	\$98	\$380	\$27	\$19	\$5	\$536	
	Multi Family - Res	\$0	\$0	\$0	\$19	\$1	\$15	\$58	\$16	\$4	\$1	\$113	
	School Education	\$0	\$0	\$126	\$0	\$2	\$28	\$66	\$63	\$11	\$1	\$297	
	EE Kits	\$0	\$0	\$2,075	\$0	\$3	\$38	\$120	\$58	\$85	\$2	\$2,381	
	New Homes	\$758	\$0	\$0	\$0	\$5	\$66	\$257	\$48	\$42	\$3	\$1,180	
	Subtotal	\$808	\$0	\$2,201	\$19	\$20	\$272	\$960	\$258	\$168	\$14	\$4,720	
Low Income Energy Efficiency Program	Weatherization	\$0	\$0	\$0	\$791	\$2	\$28	\$138	\$12	\$36	\$1	\$1,009	
	LI - Appliances	\$139	\$0	\$0	\$0	\$3	\$45	\$162	\$46	\$15	\$2	\$412	
	LI - Behavioral	\$0	\$0	\$0	\$0	\$2	\$21	\$82	\$5	\$4	\$1	\$116	
	LI - School Education	\$0	\$0	\$137	\$0	\$2	\$25	\$29	\$67	\$10	\$1	\$272	
	LI - EE Kits	\$0	\$0	\$390	\$0	\$1	\$12	\$32	\$25	\$17	\$1	\$479	
	LI - Multifamily - Res	\$0	\$0	\$0	\$714	\$3	\$43	\$171	\$32	\$36	\$2	\$1,000	
	LI - New Homes	\$9	\$0	\$0	\$0	\$0	\$2	\$8	\$1	\$1	\$0	\$20	
Subtotal	\$147	\$0	\$527	\$1,505	\$13	\$177	\$623	\$188	\$118	\$9	\$3,308		
Residential Total	\$2,146	\$52	\$2,728	\$1,524	\$54	\$727	\$2,574	\$808	\$394	\$37	\$11,047		
C&I Energy Solutions for Business Program - Small ²	Multi Family - SCI	\$0	\$0	\$0	\$593	\$5	\$70	\$273	\$49	\$37	\$4	\$1,031	
	Prescriptive - SCI	\$1,061	\$232	\$0	\$0	\$9	\$119	\$504	\$45	\$73	\$6	\$2,049	
	Prescriptive Other - SCI	\$71	\$0	\$0	\$0	\$1	\$13	\$48	\$13	\$5	\$1	\$151	
	Custom - SCI	\$618	\$0	\$0	\$0	\$7	\$95	\$376	\$62	\$43	\$5	\$1,206	
	Energy Management - SCI	\$45	\$0	\$0	\$1,024	\$8	\$111	\$467	\$47	\$63	\$6	\$1,770	
Subtotal	\$1,795	\$232	\$0	\$1,617	\$30	\$407	\$1,667	\$216	\$221	\$21	\$6,207		
Small Commercial & Industrial Total	\$1,795	\$232	\$0	\$1,617	\$30	\$407	\$1,667	\$216	\$221	\$21	\$6,207		
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$2	
	Prescriptive - LCI	\$1,043	\$714	\$0	\$0	\$10	\$134	\$579	\$43	\$94	\$7	\$2,623	
	Prescriptive Other - LCI	\$51	\$0	\$0	\$0	\$0	\$3	\$12	\$2	\$3	\$0	\$71	
	Custom - LCI	\$1,116	\$0	\$0	\$0	\$16	\$219	\$926	\$86	\$88	\$11	\$2,461	
	Energy Management - LCI	\$133	\$0	\$0	\$247	\$5	\$61	\$256	\$24	\$27	\$3	\$755	
Subtotal	\$2,342	\$714	\$0	\$249	\$31	\$417	\$1,773	\$154	\$211	\$21	\$5,913		
Large Commercial & Industrial Total	\$2,342	\$714	\$0	\$249	\$31	\$417	\$1,773	\$154	\$211	\$21	\$5,913		
Non-Residential Total	\$4,138	\$945	\$0	\$1,866	\$62	\$824	\$3,440	\$370	\$432	\$43	\$12,120		
Total	\$6,284	\$997	\$2,728	\$3,390	\$116	\$1,552	\$6,014	\$1,178	\$827	\$80	\$23,166		

¹ External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix C, Table 1-2: Program Cost by Program Year

West Penn Program Year 14

Program	Sub-Program	Incentives (\$000)					Non-Incentives (\$000)						Totals
		Rebates	Upstream/Midstream/Buildout	Kits	Direct Install Materials & Labor	Program Design	Administrative	CSP Delivery Fees	Marketing	EM&V	Other ¹		
Energy Efficient Products Program	Appliance Recycling	\$352	\$0	\$0	\$0	\$14	\$141	\$632	\$186	\$49	\$0	\$1,374	
	Appliance Rebate	\$594	\$0	\$0	\$0	\$3	\$32	\$175	\$76	\$33	\$0	\$911	
	Consumer Electronics	\$0	\$52	\$0	\$0	\$0	\$3	\$16	\$2	\$3	\$0	\$76	
	HVAC	\$246	\$0	\$0	\$0	\$4	\$45	\$158	\$100	\$20	\$0	\$573	
	Subtotal	\$1,191	\$52	\$0	\$0	\$22	\$221	\$981	\$364	\$105	\$0	\$2,935	
Energy Efficient Homes Program	Comprehensive Audits	\$100	\$0	\$0	\$0	\$3	\$30	\$128	\$48	\$11	\$0	\$321	
	Behavioral	\$0	\$0	\$0	\$0	\$13	\$136	\$657	\$43	\$31	\$0	\$881	
	Multi Family - Res	\$0	\$0	\$0	\$33	\$1	\$11	\$63	\$16	\$5	\$0	\$129	
	School Education	\$0	\$0	\$126	\$0	\$2	\$16	\$32	\$62	\$9	\$0	\$247	
	EE Kits	\$0	\$0	\$2,075	\$0	\$2	\$16	\$38	\$54	\$81	\$0	\$2,266	
	New Homes	\$758	\$0	\$0	\$0	\$4	\$46	\$220	\$47	\$40	\$0	\$1,116	
	Subtotal	\$858	\$0	\$2,201	\$33	\$25	\$256	\$1,138	\$270	\$177	\$0	\$4,959	
Low Income Energy Efficiency Program	Weatherization	\$0	\$0	\$0	\$791	\$2	\$21	\$131	\$12	\$35	\$0	\$993	
	LI - Appliances	\$139	\$0	\$0	\$0	\$3	\$33	\$147	\$46	\$14	\$0	\$381	
	LI - Behavioral	\$0	\$0	\$0	\$0	\$1	\$15	\$72	\$5	\$3	\$0	\$97	
	LI - School Education	\$0	\$0	\$137	\$0	\$2	\$18	\$15	\$67	\$9	\$0	\$247	
	LI - EE Kits	\$0	\$0	\$390	\$0	\$1	\$8	\$24	\$25	\$17	\$0	\$464	
	LI - Multifamily - Res	\$0	\$0	\$0	\$714	\$3	\$32	\$158	\$32	\$35	\$0	\$973	
	LI - New Homes	\$9	\$0	\$0	\$0	\$0	\$1	\$4	\$0	\$1	\$0	\$15	
Subtotal	\$147	\$0	\$527	\$1,505	\$12	\$128	\$550	\$186	\$113	\$0	\$3,170		
Residential Total	\$2,196	\$52	\$2,728	\$1,539	\$59	\$604	\$2,669	\$821	\$395	\$0	\$11,063		
C&I Energy Solutions for Business Program - Small ²	Multi Family - SCI	\$0	\$0	\$0	\$607	\$5	\$54	\$263	\$50	\$36	\$0	\$1,016	
	Prescriptive - SCI	\$1,061	\$232	\$0	\$0	\$8	\$81	\$425	\$42	\$68	\$0	\$1,917	
	Prescriptive Other - SCI	\$71	\$0	\$0	\$0	\$1	\$10	\$44	\$12	\$5	\$0	\$143	
	Custom - SCI	\$618	\$0	\$0	\$0	\$6	\$64	\$311	\$60	\$39	\$0	\$1,098	
	Energy Management - SCI	\$78	\$0	\$0	\$2,048	\$10	\$101	\$533	\$51	\$104	\$0	\$2,925	
	Subtotal	\$1,828	\$232	\$0	\$2,655	\$30	\$309	\$1,576	\$215	\$253	\$0	\$7,099	
Small Commercial & Industrial Total	\$1,828	\$232	\$0	\$2,655	\$30	\$309	\$1,576	\$215	\$253	\$0	\$7,099		
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$2	
	Prescriptive - LCI	\$1,043	\$714	\$0	\$0	\$9	\$96	\$517	\$41	\$90	\$0	\$2,510	
	Prescriptive Other - LCI	\$51	\$0	\$0	\$0	\$0	\$2	\$8	\$2	\$2	\$0	\$65	
	Custom - LCI	\$1,116	\$0	\$0	\$0	\$13	\$136	\$710	\$77	\$76	\$0	\$2,127	
	Energy Management - LCI	\$159	\$0	\$0	\$247	\$4	\$42	\$218	\$22	\$26	\$0	\$718	
	Subtotal	\$2,369	\$714	\$0	\$249	\$27	\$275	\$1,453	\$142	\$193	\$0	\$5,422	
Large Commercial & Industrial Total	\$2,369	\$714	\$0	\$249	\$27	\$275	\$1,453	\$142	\$193	\$0	\$5,422		
Non-Residential Total	\$4,197	\$945	\$0	\$2,904	\$57	\$584	\$3,029	\$357	\$447	\$0	\$12,521		
Total	\$6,393	\$997	\$2,728	\$4,443	\$116	\$1,189	\$5,699	\$1,178	\$841	\$0	\$23,584		

¹ External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix C, Table 1-3: Program Cost by Program Year

West Penn Program Year 15

Program	Sub-Program	Incentives (\$000)					Non-Incentives (\$000)						Totals
		Rebates	Upstream/Midstream/Buildout	Kits	Direct Install Materials & Labor	Program Design	Administrative	CSP Delivery Fees	Marketing	EM&V	Other ¹		
Energy Efficient Products Program	Appliance Recycling	\$352	\$0	\$0	\$0	\$14	\$139	\$632	\$186	\$49	\$0	\$1,372	
	Appliance Rebate	\$594	\$0	\$0	\$0	\$3	\$31	\$175	\$76	\$32	\$0	\$911	
	Consumer Electronics	\$0	\$52	\$0	\$0	\$0	\$3	\$16	\$2	\$3	\$0	\$76	
	HVAC	\$246	\$0	\$0	\$0	\$4	\$44	\$158	\$100	\$20	\$0	\$572	
	Subtotal	\$1,191	\$52	\$0	\$0	\$21	\$217	\$981	\$364	\$105	\$0	\$2,931	
Energy Efficient Homes Program	Comprehensive Audits	\$100	\$0	\$0	\$0	\$3	\$30	\$128	\$48	\$11	\$0	\$320	
	Behavioral	\$0	\$0	\$0	\$0	\$13	\$133	\$657	\$43	\$31	\$0	\$878	
	Multi Family - Res	\$0	\$0	\$0	\$33	\$1	\$11	\$63	\$16	\$5	\$0	\$129	
	School Education	\$0	\$0	\$126	\$0	\$2	\$16	\$32	\$62	\$9	\$0	\$246	
	EE Kits	\$0	\$0	\$2,075	\$0	\$2	\$16	\$38	\$54	\$81	\$0	\$2,266	
	New Homes	\$758	\$0	\$0	\$0	\$4	\$45	\$220	\$47	\$40	\$0	\$1,115	
	Subtotal	\$858	\$0	\$2,201	\$33	\$25	\$251	\$1,138	\$270	\$177	\$0	\$4,954	
Low Income Energy Efficiency Program	Weatherization	\$0	\$0	\$0	\$791	\$2	\$21	\$131	\$12	\$35	\$0	\$992	
	LI - Appliances	\$139	\$0	\$0	\$0	\$3	\$33	\$147	\$46	\$14	\$0	\$380	
	LI - Behavioral	\$0	\$0	\$0	\$0	\$2	\$16	\$80	\$5	\$4	\$0	\$107	
	LI - School Education	\$0	\$0	\$137	\$0	\$2	\$17	\$15	\$67	\$9	\$0	\$247	
	LI - EE Kits	\$0	\$0	\$390	\$0	\$1	\$8	\$24	\$25	\$17	\$0	\$464	
	LI - Multifamily - Res	\$0	\$0	\$0	\$714	\$3	\$31	\$158	\$32	\$35	\$0	\$972	
	LI - New Homes	\$9	\$0	\$0	\$0	\$0	\$1	\$4	\$0	\$1	\$0	\$15	
Subtotal	\$147	\$0	\$527	\$1,505	\$13	\$127	\$558	\$187	\$113	\$0	\$3,178		
Residential Total		\$2,196	\$52	\$2,728	\$1,539	\$59	\$595	\$2,677	\$821	\$395	\$0	\$11,062	
C&I Energy Solutions for Business Program - Small ²	Multi Family - SCI	\$0	\$0	\$0	\$607	\$5	\$53	\$263	\$50	\$36	\$0	\$1,015	
	Prescriptive - SCI	\$1,061	\$232	\$0	\$0	\$8	\$79	\$425	\$42	\$68	\$0	\$1,915	
	Prescriptive Other - SCI	\$71	\$0	\$0	\$0	\$1	\$10	\$44	\$12	\$5	\$0	\$143	
	Custom - SCI	\$618	\$0	\$0	\$0	\$6	\$63	\$311	\$60	\$39	\$0	\$1,097	
	Energy Management - SCI	\$78	\$0	\$0	\$2,048	\$10	\$99	\$533	\$51	\$104	\$0	\$2,923	
	Subtotal	\$1,828	\$232	\$0	\$2,655	\$30	\$304	\$1,576	\$215	\$253	\$0	\$7,093	
Small Commercial & Industrial Total		\$1,828	\$232	\$0	\$2,655	\$30	\$304	\$1,576	\$215	\$253	\$0	\$7,093	
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$2	
	Prescriptive - LCI	\$1,043	\$714	\$0	\$0	\$9	\$95	\$517	\$41	\$89	\$0	\$2,508	
	Prescriptive Other - LCI	\$51	\$0	\$0	\$0	\$0	\$2	\$8	\$2	\$2	\$0	\$65	
	Custom - LCI	\$1,116	\$0	\$0	\$0	\$13	\$133	\$710	\$77	\$76	\$0	\$2,125	
	Energy Management - LCI	\$159	\$0	\$0	\$247	\$4	\$41	\$218	\$22	\$26	\$0	\$717	
	Subtotal	\$2,369	\$714	\$0	\$249	\$27	\$270	\$1,453	\$142	\$193	\$0	\$5,417	
Large Commercial & Industrial Total		\$2,369	\$714	\$0	\$249	\$27	\$270	\$1,453	\$142	\$193	\$0	\$5,417	
Non-Residential Total		\$4,197	\$945	\$0	\$2,904	\$57	\$574	\$3,029	\$357	\$446	\$0	\$12,510	
Total		\$6,393	\$997	\$2,728	\$4,443	\$116	\$1,169	\$5,707	\$1,178	\$841	\$0	\$23,572	

¹ External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix C, Table 1-4: Program Cost by Program Year

West Penn Program Year 16

Program	Sub-Program	Incentives (\$000)					Non-Incentives (\$000)						Totals
		Rebates	Upstream/Midstream/Buildout	Kits	Direct Install Materials & Labor	Program Design	Administrative	CSP Delivery Fees	Marketing	EM&V	Other ¹		
Energy Efficient Products Program	Appliance Recycling	\$352	\$0	\$0	\$0	\$14	\$138	\$632	\$186	\$49	\$0	\$1,371	
	Appliance Rebate	\$594	\$0	\$0	\$0	\$3	\$31	\$175	\$76	\$32	\$0	\$910	
	Consumer Electronics	\$0	\$52	\$0	\$0	\$0	\$3	\$16	\$2	\$3	\$0	\$76	
	HVAC	\$246	\$0	\$0	\$0	\$4	\$44	\$158	\$100	\$20	\$0	\$572	
	Subtotal	\$1,191	\$52	\$0	\$0	\$21	\$216	\$981	\$364	\$105	\$0	\$2,929	
Energy Efficient Homes Program	Comprehensive Audits	\$100	\$0	\$0	\$0	\$3	\$30	\$128	\$48	\$11	\$0	\$320	
	Behavioral	\$0	\$0	\$0	\$0	\$13	\$133	\$657	\$43	\$31	\$0	\$877	
	Multi Family - Res	\$0	\$0	\$0	\$33	\$1	\$11	\$63	\$16	\$5	\$0	\$128	
	School Education	\$0	\$0	\$126	\$0	\$2	\$16	\$32	\$62	\$9	\$0	\$246	
	EE Kits	\$0	\$0	\$2,075	\$0	\$2	\$16	\$38	\$54	\$81	\$0	\$2,266	
	New Homes	\$758	\$0	\$0	\$0	\$4	\$45	\$220	\$47	\$40	\$0	\$1,115	
	Subtotal	\$858	\$0	\$2,201	\$33	\$25	\$250	\$1,138	\$270	\$177	\$0	\$4,952	
Low Income Energy Efficiency Program	Weatherization	\$0	\$0	\$0	\$791	\$2	\$21	\$131	\$12	\$35	\$0	\$992	
	LI - Appliances	\$139	\$0	\$0	\$0	\$3	\$32	\$147	\$46	\$14	\$0	\$380	
	LI - Behavioral	\$0	\$0	\$0	\$0	\$1	\$15	\$72	\$5	\$3	\$0	\$97	
	LI - School Education	\$0	\$0	\$137	\$0	\$2	\$17	\$15	\$67	\$9	\$0	\$247	
	LI - EE Kits	\$0	\$0	\$390	\$0	\$1	\$8	\$24	\$25	\$17	\$0	\$464	
	LI - Multifamily - Res	\$0	\$0	\$0	\$714	\$3	\$31	\$158	\$32	\$35	\$0	\$972	
	LI - New Homes	\$9	\$0	\$0	\$0	\$0	\$1	\$4	\$0	\$1	\$0	\$15	
Subtotal	\$147	\$0	\$527	\$1,505	\$12	\$125	\$550	\$186	\$113	\$0	\$3,167		
Residential Total	\$2,196	\$52	\$2,728	\$1,539	\$59	\$591	\$2,669	\$820	\$394	\$0	\$11,048		
C&I Energy Solutions for Business Program - Small ²	Multi Family - SCI	\$0	\$0	\$0	\$607	\$5	\$53	\$263	\$50	\$36	\$0	\$1,015	
	Prescriptive - SCI	\$1,061	\$232	\$0	\$0	\$8	\$79	\$425	\$42	\$68	\$0	\$1,915	
	Prescriptive Other - SCI	\$71	\$0	\$0	\$0	\$1	\$10	\$44	\$12	\$5	\$0	\$143	
	Custom - SCI	\$618	\$0	\$0	\$0	\$6	\$62	\$311	\$60	\$39	\$0	\$1,097	
	Energy Management - SCI	\$78	\$0	\$0	\$2,048	\$10	\$98	\$533	\$51	\$104	\$0	\$2,922	
	Subtotal	\$1,828	\$232	\$0	\$2,655	\$30	\$302	\$1,576	\$215	\$253	\$0	\$7,091	
Small Commercial & Industrial Total	\$1,828	\$232	\$0	\$2,655	\$30	\$302	\$1,576	\$215	\$253	\$0	\$7,091		
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$2	
	Prescriptive - LCI	\$1,043	\$714	\$0	\$0	\$9	\$94	\$517	\$41	\$89	\$0	\$2,507	
	Prescriptive Other - LCI	\$51	\$0	\$0	\$0	\$0	\$2	\$8	\$2	\$2	\$0	\$65	
	Custom - LCI	\$1,116	\$0	\$0	\$0	\$13	\$133	\$710	\$77	\$76	\$0	\$2,124	
	Energy Management - LCI	\$159	\$0	\$0	\$371	\$4	\$45	\$243	\$24	\$31	\$0	\$877	
	Subtotal	\$2,369	\$714	\$0	\$373	\$27	\$273	\$1,478	\$143	\$199	\$0	\$5,575	
Large Commercial & Industrial Total	\$2,369	\$714	\$0	\$373	\$27	\$273	\$1,478	\$143	\$199	\$0	\$5,575		
Non-Residential Total	\$4,197	\$945	\$0	\$3,028	\$57	\$576	\$3,054	\$358	\$452	\$0	\$12,666		
Total	\$6,393	\$997	\$2,728	\$4,566	\$116	\$1,166	\$5,723	\$1,178	\$846	\$0	\$23,715		

¹ External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix C, Table 1-5: Program Cost by Program Year

West Penn Program Year 17

Program	Sub-Program	Incentives (\$000)					Non-Incentives (\$000)						Totals
		Rebates	Upstream/Midstream/Buildout	Kits	Direct Install Materials & Labor	Program Design	Administrative	CSP Delivery Fees	Marketing	EM&V	Other ¹		
Energy Efficient Products Program	Appliance Recycling	\$352	\$0	\$0	\$0	\$14	\$137	\$632	\$186	\$49	\$0	\$1,370	
	Appliance Rebate	\$594	\$0	\$0	\$0	\$3	\$31	\$175	\$76	\$32	\$0	\$910	
	Consumer Electronics	\$0	\$52	\$0	\$0	\$0	\$3	\$16	\$2	\$3	\$0	\$76	
	HVAC	\$246	\$0	\$0	\$0	\$4	\$43	\$158	\$100	\$20	\$0	\$572	
	Subtotal	\$1,191	\$52	\$0	\$0	\$21	\$215	\$981	\$364	\$104	\$0	\$2,928	
Energy Efficient Homes Program	Comprehensive Audits	\$100	\$0	\$0	\$0	\$3	\$30	\$128	\$48	\$11	\$0	\$320	
	Behavioral	\$0	\$0	\$0	\$0	\$13	\$132	\$657	\$43	\$31	\$0	\$876	
	Multi Family - Res	\$0	\$0	\$0	\$33	\$1	\$11	\$63	\$16	\$5	\$0	\$128	
	School Education	\$0	\$0	\$126	\$0	\$2	\$16	\$32	\$62	\$9	\$0	\$246	
	EE Kits	\$0	\$0	\$2,075	\$0	\$2	\$16	\$38	\$54	\$81	\$0	\$2,266	
	New Homes	\$758	\$0	\$0	\$0	\$4	\$45	\$220	\$47	\$40	\$0	\$1,114	
	Subtotal	\$858	\$0	\$2,201	\$33	\$25	\$249	\$1,138	\$270	\$177	\$0	\$4,951	
Low Income Energy Efficiency Program	Weatherization	\$0	\$0	\$0	\$791	\$2	\$21	\$131	\$12	\$35	\$0	\$992	
	LI - Appliances	\$139	\$0	\$0	\$0	\$3	\$32	\$147	\$46	\$14	\$0	\$380	
	LI - Behavioral	\$0	\$0	\$0	\$0	\$2	\$16	\$80	\$5	\$4	\$0	\$107	
	LI - School Education	\$0	\$0	\$137	\$0	\$2	\$17	\$15	\$67	\$9	\$0	\$246	
	LI - EE Kits	\$0	\$0	\$390	\$0	\$1	\$8	\$24	\$25	\$17	\$0	\$464	
	LI - Multifamily - Res	\$0	\$0	\$0	\$714	\$3	\$31	\$158	\$32	\$35	\$0	\$972	
	LI - New Homes	\$9	\$0	\$0	\$0	\$0	\$1	\$4	\$0	\$1	\$0	\$15	
Subtotal	\$147	\$0	\$527	\$1,505	\$13	\$126	\$558	\$187	\$113	\$0	\$3,176		
Residential Total	\$2,196	\$52	\$2,728	\$1,539	\$59	\$590	\$2,677	\$821	\$394	\$0	\$11,055		
C&I Energy Solutions for Business Program - Small ²	Multi Family - SCI	\$0	\$0	\$0	\$607	\$5	\$53	\$263	\$50	\$36	\$0	\$1,014	
	Prescriptive - SCI	\$1,061	\$232	\$0	\$0	\$8	\$78	\$425	\$42	\$68	\$0	\$1,914	
	Prescriptive Other - SCI	\$71	\$0	\$0	\$0	\$1	\$10	\$44	\$12	\$5	\$0	\$143	
	Custom - SCI	\$618	\$0	\$0	\$0	\$6	\$62	\$311	\$60	\$39	\$0	\$1,096	
	Energy Management - SCI	\$78	\$0	\$0	\$2,048	\$10	\$98	\$533	\$51	\$104	\$0	\$2,922	
	Subtotal	\$1,828	\$232	\$0	\$2,655	\$30	\$301	\$1,576	\$215	\$253	\$0	\$7,089	
Small Commercial & Industrial Total	\$1,828	\$232	\$0	\$2,655	\$30	\$301	\$1,576	\$215	\$253	\$0	\$7,089		
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$2	
	Prescriptive - LCI	\$1,043	\$714	\$0	\$0	\$9	\$94	\$517	\$41	\$89	\$0	\$2,507	
	Prescriptive Other - LCI	\$51	\$0	\$0	\$0	\$0	\$2	\$8	\$2	\$2	\$0	\$65	
	Custom - LCI	\$1,116	\$0	\$0	\$0	\$13	\$132	\$710	\$77	\$76	\$0	\$2,123	
	Energy Management - LCI	\$159	\$0	\$0	\$371	\$4	\$45	\$243	\$23	\$31	\$0	\$876	
	Subtotal	\$2,369	\$714	\$0	\$373	\$27	\$272	\$1,478	\$143	\$199	\$0	\$5,574	
Large Commercial & Industrial Total	\$2,369	\$714	\$0	\$373	\$27	\$272	\$1,478	\$143	\$199	\$0	\$5,574		
Non-Residential Total	\$4,197	\$945	\$0	\$3,028	\$57	\$573	\$3,054	\$358	\$452	\$0	\$12,663		
Total	\$6,393	\$997	\$2,728	\$4,566	\$116	\$1,162	\$5,731	\$1,178	\$846	\$0	\$23,719		

¹ External Legal

² Includes projected participation of Low Income households living in Multifamily housing.

Appendix C, Table 2: Program Savings by Program Year

West Penn		PY13		PY14		PY15		PY16		PY17		Total	
Program	Sub-Program	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW
Energy Efficient Products Program	Appliance Recycling	5,143,283	1,152	5,143,283	1,152	5,143,283	1,152	5,143,283	1,152	5,143,283	1,152	25,716,413	5,760
	Appliance Rebate	3,283,767	756	3,283,767	756	3,283,767	756	3,283,767	756	3,283,767	756	16,418,835	3,780
	Consumer Electronics	576,140	544	576,140	544	576,140	544	576,140	544	576,140	544	2,880,700	2,722
	HVAC	1,364,415	116	1,364,415	116	1,364,415	116	1,364,415	116	1,364,415	116	6,822,073	578
	Subtotal	10,367,604	2,568	10,367,604	2,568	10,367,604	2,568	10,367,604	2,568	10,367,604	2,568	51,838,020	12,840
Energy Efficient Homes Program	Comprehensive Audits	87,739	41	175,477	83	175,477	83	175,477	83	175,477	83	789,647	373
	Behavioral	3,149,400	559	5,846,400	1,050	5,498,400	987	5,167,800	927	4,741,500	849	24,403,500	4,371
	Multi Family - Res	108,413	31	216,826	63	216,826	63	216,826	63	216,826	63	975,718	282
	School Education	666,796	79	666,796	79	666,796	79	666,796	79	666,796	79	3,333,981	397
	EE Kits	9,950,000	1,173	9,950,000	1,173	9,950,000	1,173	9,950,000	1,173	9,950,000	1,173	49,750,000	5,867
	New Homes	1,952,820	850	1,952,820	850	1,952,820	850	1,952,820	850	1,952,820	850	9,764,100	4,248
	Subtotal	15,915,168	2,734	18,808,320	3,298	18,460,320	3,235	18,129,720	3,175	17,703,420	3,097	89,016,947	15,538
Low Income Energy Efficiency Program	Weatherization	976,150	91	976,150	91	976,150	91	976,150	91	976,150	91	4,880,752	455
	LI - Appliances	1,088,080	229	1,088,080	229	1,088,080	229	1,088,080	229	1,088,080	229	5,440,402	1,145
	LI - Behavioral	733,500	133	985,800	179	611,700	110	881,400	159	524,700	94	3,737,100	675
	LI - School Education	591,239	79	591,239	79	591,239	79	591,239	79	591,239	79	2,956,196	396
	LI - EE Kits	1,687,500	213	1,687,500	213	1,687,500	213	1,687,500	213	1,687,500	213	8,437,500	1,067
	LI - Multifamily - Res	581,802	137	581,802	137	581,802	137	581,802	137	581,802	137	2,909,010	685
	LI - New Homes	18,917	6	18,917	6	18,917	6	18,917	6	18,917	6	94,584	32
Subtotal	5,677,189	889	5,929,489	935	5,555,389	866	5,825,089	916	5,468,389	850	28,455,544	4,456	
	Residential Total	31,959,961	6,190	35,105,412	6,801	34,383,312	6,669	34,322,412	6,658	33,539,412	6,515	169,310,511	32,834
C&I Energy Solutions for Business Program - Small ¹	Multi Family - SCI	444,206	61	502,190	71	502,190	71	502,190	71	502,190	71	2,452,967	345
	Prescriptive - SCI	13,762,428	3,327	13,762,428	3,327	13,762,428	3,327	13,762,428	3,327	13,762,428	3,327	68,812,140	16,634
	Prescriptive Other - SCI	576,647	94	576,647	94	576,647	94	576,647	94	576,647	94	2,883,234	472
	Custom - SCI	4,163,426	828	4,163,426	828	4,163,426	828	4,163,426	828	4,163,426	828	20,817,129	4,138
	Energy Management - SCI	3,500,321	448	6,935,452	887	6,935,452	887	6,935,452	887	6,935,452	887	31,242,130	3,997
	Subtotal	22,447,027	4,758	25,940,143	5,207	25,940,143	5,207	25,940,143	5,207	25,940,143	5,207	126,207,600	25,586
	Small Commercial & Industrial Total	22,447,027	4,758	25,940,143	5,207	25,940,143	5,207	25,940,143	5,207	25,940,143	5,207	126,207,600	25,586
C&I Energy Solutions for Business Program - Large	Multi Family - LCI	15,846	4	15,846	4	15,846	4	15,846	4	15,846	4	79,230	19
	Prescriptive - LCI	21,351,552	3,820	21,351,552	3,820	21,351,552	3,820	21,351,552	3,820	21,351,552	3,820	106,757,760	19,101
	Prescriptive Other - LCI	107,699	19	107,699	19	107,699	19	107,699	19	107,699	19	538,496	94
	Custom - LCI	10,663,778	1,667	10,663,778	1,667	10,663,778	1,667	10,663,778	1,667	10,663,778	1,667	53,318,888	8,337
	Energy Management - LCI	2,123,644	505	2,384,862	540	2,384,862	540	2,783,577	633	2,783,577	633	12,460,522	2,852
	Subtotal	34,262,519	6,015	34,523,737	6,051	34,523,737	6,051	34,922,451	6,143	34,922,451	6,143	173,154,896	30,403
	Large Commercial & Industrial Total	34,262,519	6,015	34,523,737	6,051	34,523,737	6,051	34,922,451	6,143	34,922,451	6,143	173,154,896	30,403
	Non-Residential Total	56,709,546	10,773	60,463,880	11,258	60,463,880	11,258	60,862,595	11,350	60,862,595	11,350	299,362,496	55,989
	Total	88,669,507	16,963	95,569,293	18,059	94,847,193	17,927	95,185,007	18,008	94,402,007	17,866	468,673,007	88,823

¹ Includes projected participation of Low Income households living in Multifamily housing.

Appendix C: Table 3, Energy Efficiency as a Resource - West Penn

EE&C Plan Phase	EE Installation Period	EE Plan Potential MW Range	DY 23/24 MW Range	DY 24/25 MW Range	DY 25/26 EE MW Range	DY 26/27 EE MW Range	DY 27/28 MW Range	DY 28/29 EE MW Range	DY 29/30 EE MW Range
IV	21/22	2.3 to 4.1	2.3 to 4.1	2.3 to 4.1	2.3 to 4.1	n/a	n/a	n/a	n/a
	22/23	2.3 to 4.1	2.3 to 4.1	2.3 to 4.1	2.3 to 4.1	2.3 to 4.1	n/a	n/a	n/a
	23/24	2.3 to 4.1	n/a	2.3 to 4.1	2.3 to 4.1	2.3 to 4.1	2.3 to 4.1	n/a	n/a
	24/25	2.3 to 4.1	n/a	n/a	2.3 to 4.1	2.3 to 4.1	2.3 to 4.1	2.3 to 4.1	n/a
	25/26	2.3 to 4.1	n/a	n/a	n/a	2.3 to 4.1	2.3 to 4.1	2.3 to 4.1	2.3 to 4.1
EE MW Ranges		11.5 to 20.5	4.6 to 8.2	6.9 to 12.3	9.2 to 16.4	9.2 to 16.4	6.9 to 12.3	4.6 to 8.2	2.3 to 4.1

¹ The MW values provided in Appendix C, Table C-3 are an estimated range of the EE&C Plan Potential PJM EE MW values for each installation period and do not represent the actual EE values to be offered into PJM's capacity market. These estimates are based on projections used in the development of the EE&C Plan, with adjustment for the addition of line losses, eliminating non-PJM eligible measures, and Company experience with PJM EE evaluations. These estimates are presented for information purposes only and are subject to change for reasons, including but not limited to, changes in program participation, baselines, measurement and verification protocols or costs and PJM rules. The Company will determine the actual EE Resource offers applicable to each PJM auction starting with the 2023/24 BRA scheduled to occur December 2021.

**Appendix D:
Calculation Methods and Assumptions**

Appendix D, Table 1: Costs Assumptions

Cost Assumptions

Program cost elements are categorized into specific costs and common costs. Specific costs include program direct administrative and incentive costs, including: 1) Incentives, Delivery, Marketing provided by CSPs, and Evaluation, Measurement and Verification (EM&V). Specific costs are calculated based on measure, subprogram and or program level estimates, and summed to the subprogram and program level. Common costs include portfolio administrative costs, including: 1) Program Design, 2) Administration, 3) Marketing provided by the utility, and 4) Other. Common costs are estimated at the State level and allocated to the Company based on the Company's savings and targets, and allocated to each program based on the ratio of program specific administrative costs (CSP Delivery and Marketing costs). The following details the assumptions for each cost element used in the budget tables located throughout the plan:

Cost Elements	Description
Incentives	Incentives includes program specific costs for 1) rebates paid to customers, 2) upstream/midstream buydowns, 3) material cost of giveaways (e.g. kits) and 4) program direct install labor and material cost provided to customers. Incentives were calculated based on measure assumptions and participation projections, and summed to the subprogram and program level.
Program Design	Program Design includes common costs associated with the development of the plan and programs including costs incurred by the utility for employee labor software fees for plan development and research and development related association fees. Program Design costs were based on actual costs or Company estimates.
Administration	Administration costs includes common costs incurred by the utility for employee labor and expenses to oversee, administer and manage the portfolio, costs to develop and maintain a data collection, tracking and reporting system, and to perform duties associated with activities such as regulatory reporting or meetings to support the plan (e.g. Stakeholder meetings, Program Evaluation Group meetings). Administration costs were estimated based on actual costs or Company estimates.
Delivery	Delivery costs includes program specific costs for implementation of the programs or subprograms. Program Delivery costs were identified by two components, (1) fixed program/sub-program, and (2) variable unit cost. Includes costs for the management and implementation of programs or subprograms, including staffing, websites, data collection and transfers, call centers, incentive processing, quality assurances and control processes, and other activities supporting successful program implementation. Program Delivery costs were informed by experience for similar programs operated by the Company or Company affiliates in Pennsylvania or other jurisdictions, or by vendor proposals or actual costs. These costs were estimated for each subprogram based on measure participation where applicable, and summed to the program level.
Marketing	Marketing costs includes common costs incurred by the utility and program specific costs incurred by CSPs for marketing the plan, programs and subprograms. Marketing costs were informed by Company estimates of utility and CSP pricing for the plan, program or subprograms. Utility marketing was based on estimated annual costs. CSP marketing costs were identified by two components, (1) fixed program/sub-program and (2) variable unit cost. Includes costs associated with developing and providing marketing/promotional strategies, advertising space and materials.
EM&V	EM&V costs includes program specific costs for EM&V of the program and subprograms. EM&V costs are based on CSP contract pricing. Includes costs for evaluation, measurement and verification activities performed by the Company's independent third-party evaluator. These funds are spent on evaluation, surveys, M&V processes, data transfer responsibilities and participation in evaluation and working group meetings.
Other	Other costs includes other outside services common costs associated with the development and regulatory review process of the plan, including third-party consulting and outside legal fees. Other costs were based on Company estimates.

Appendix D. Table 2: Measure Assumption¹

West Penn																		
Program	Sub-Program	Measure	Measure Life	Verified kWh	Verified kW	NTG	RR kWh	RR kW	Incremental Cost	Modeled Rebate	O&M Benefit (\$/Unit/Yr)	Gas Savings (MMBTU/Yr)	Water Savings (Gal/Yr)	Savings Assumption	Savings Source	Incremental Cost Source		
Energy Efficient Products Program	Appliance Recycling	Freezer Recycling	5	691	0.112	0.47	1.00	1.00	\$0	\$58	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
		Refrigerator Recycling	6	944	0.152	0.47	1.00	1.00	\$0	\$38	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
		Room Air Conditioner Recycling	4	113	0.324	0.47	1.00	1.00	\$0	\$35	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
		Dehumidifier Recycling	5	500	0.173	0.47	1.00	1.00	\$0	\$35	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
		Clothes Washer - Level 1	11	117	0.012	0.50	1.15	1.09	\$187	\$60	\$0.00	0.250	1,495	0	1 Unit	PA TRM	PA IC DB	
		Clothes Washer - Level 2	11	166	0.017	0.50	1.15	1.09	\$187	\$25	\$0.00	0.250	1,495	0	1 Unit	PA TRM	PA IC DB	
		Clothes Washer - Level 3	11	178	0.019	0.50	1.15	1.09	\$187	\$25	\$0.00	0.250	1,495	0	1 Unit	PA TRM	PA IC DB	
		Refrigerator - Level 1	14	46	0.008	0.50	1.15	1.09	\$75	\$30	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB	
		Refrigerator - Level 2	14	89	0.014	0.50	1.15	1.09	\$75	\$50	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB	
		Refrigerator - Level 3	14	118	0.018	0.50	1.15	1.09	\$75	\$75	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB	
	Appliance Rebate	Freezer	11	36	0.006	0.50	1.15	1.09	\$43	\$25	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB	
		Clothes Dryer	12	19	0.002	0.50	1.15	1.09	\$358	\$50	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB	
		Air Purifier / Cleaner	9	785	0.085	0.50	1.15	1.09	\$74	\$25	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB	
		Room Air Conditioner - Level 1	9	20	0.039	0.50	1.15	1.09	\$65	\$25	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB	
		Room Air Conditioner - Level 2	9	20	0.039	0.50	1.15	1.09	\$65	\$30	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB	
		Dehumidifier	12	240	0.056	0.50	1.15	1.09	\$11	\$25	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB	
		Water Heater	10	1,453	0.086	0.50	1.15	1.09	\$651	\$500	\$0.00	0.000	0	1-50 gal unit	PA TRM	PA IC DB		
		Pool Pump Variable Speed	10	1,620	0.388	0.50	1.15	1.09	\$421	\$300	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB	
		Dishwasher	10	26	0.003	0.50	1.15	1.09	\$316	\$25	\$0.00	0.000	0	210	1 unit	PA TRM	PA IC DB	
		Water Cooler	10	235	0.025	0.50	1.15	1.09	\$49	\$25	\$0.00	0.000	0	0	1 unit	PA TRM	PA IC DB	
	Consumer Electronics	EV Charging Cord - Level 2 - Res	10	36	0.004	0.50	1.15	1.09	\$500	\$50	\$0.00	0.000	0	0	1 Unit	Energy Star	Co Assumption	
		Smart Thermostat - Apollo	11	230	0.000	0.50	1.15	1.09	\$140	\$50	\$0.00	0.000	0	0	1 Unit	1 Unit controlling 2.5 Ton CAC	PA TRM	PA IC DB
		Residential Occupancy Sensor	10	33	0.000	0.50	1.15	1.09	\$26	\$5	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB	
		Ceiling Fan	15	47	0.012	0.50	1.15	1.09	\$15	\$35	\$0.00	0.000	0	0	1 unit	PA TRM	PA IC DB	
		Monitor	4	27	0.004	0.58	1.14	1.14	\$4	\$3	\$0.00	0.000	0	0	1 unit	PA TRM	PA IC DB	
		Computer	4	136	0.018	0.58	1.14	1.14	\$41	\$5	\$0.00	0.000	0	0	1 unit	PA TRM	PA IC DB	
		Imaging	6	41	0.006	0.58	1.14	1.14	\$14	\$5	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB	
		Smart Strip Plug Outlet	5	131	0.015	0.58	1.14	1.14	\$41	\$13	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB	
		TV	6	87	0.239	0.58	1.14	1.14	\$3	\$5	\$0.00	0.000	0	0	1 unit	MA TRM	MA TRM	
		Sound Bar	7	30	0.011	0.58	1.14	1.14	\$6	\$10	\$0.00	0.000	0	0	1 Unit	MA TRM	MA TRM	
	HVAC	Smart Home	15	5	0.001	0.58	1.14	1.14	\$14	\$5	\$0.00	0.000	0	0	1 lamp	MA TRM	MA TRM	
		Heat Pump - Level 2	15	2,848	0.088	0.52	1.10	1.15	\$508	\$250	\$0.00	0.000	0	0	1-2.75 ton unit	PA TRM	PA IC DB	
		Heat Pump - Level 3	15	3,507	0.088	0.52	1.10	1.15	\$1,423	\$500	\$0.00	0.000	0	0	1-2.75 ton unit	PA TRM	PA IC DB	
		Central Air Conditioner - Level 2	15	354	0.188	0.52	1.10	1.15	\$1,059	\$200	\$0.00	0.000	0	0	1-2.75 Ton Unit	PA TRM	PA IC DB	
		Central Air Conditioner - Level 3	15	498	0.198	0.52	1.10	1.15	\$1,059	\$200	\$0.00	0.000	0	0	1-2.75 Ton Unit	PA TRM	PA IC DB	
		Ductless Mini-Split Heat Pump - Level 3	15	637	0.086	0.52	1.10	1.15	\$498	\$200	\$0.00	0.000	0	0	1-1.5 ton unit	PA TRM	PA IC DB	
		PTAC - Level 2 - Multi Family	15	204	0.136	0.52	1.10	1.15	\$454	\$150	\$0.00	0.000	0	0	1-1.25 Ton Unit	PA TRM	PA IC DB	
		PTHP - Level 2 - Multi Family	15	198	0.063	0.52	1.10	1.15	\$363	\$225	\$0.00	0.000	0	0	1-1.25 Ton Unit	PA TRM	PA IC DB	
		Heat Pump - Water & Gact - ES Tier 3	15	3,401	0.015	0.52	1.10	1.15	\$1,893	\$500	\$0.00	0.000	0	0	1-3 Ton Unit	PA TRM	PA IC DB	
		Furnace Fan (Retrofit or New to ECM)	15	134	0.048	0.52	1.10	1.15	\$242	\$150	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB	
	Comprehensive Audits	Smart Thermostat - HVAC	11	220	0.000	0.52	1.10	1.15	\$140	\$75	\$0.00	0.000	0	0	1 Unit controlling 2.5 Ton CAC	PA TRM	PA IC DB	
		HVAC - Custom	3	88	0.014	0.52	1.10	1.15	\$113	\$30	\$0.00	0.000	0	0	1 - Unit	PA TRM	PA IC DB	
		Circulating Pump	16	175	0.000	0.52	1.10	1.15	\$39	\$30	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB	
HE Bathroom Fans		15	39	0.005	0.52	1.10	1.15	\$44	\$10	\$0.00	0.000	0	0	1-20 CFM unit	MA TRM	MA TRM		
HVAC Quality Install		15	38	0.005	0.52	1.10	1.15	\$0	\$25	\$0.00	0.000	0	0	1 Unit	PA TRM	Co Assumption		
Ductless Mini-Split A/C		15	157	0.086	0.52	1.10	1.15	\$498	\$200	\$0.00	0.000	0	0	1-1.5 ton unit	PA TRM	PA IC DB		
Heat Pump (Air-Water) w Domestic Hot Water		15	3,507	0.088	0.52	1.10	1.15	\$1,423	\$400	\$0.00	0.000	0	0	1-2.75 ton unit	PA TRM	PA IC DB		
Comprehensive Audit		9	877	0.379	1.00	1.00	0.96	\$968	\$500	\$0.00	0.000	0	0	1 - Audit w DI & Wgtd Retrofits	Actuals	Actuals		
Multi Family - Res		MF - Tenant - DI - Res	15	225	0.025	1.00	1.00	0.96	\$200	\$140	\$0.00	0.000	0	0	1 Tenant Space	Actuals	Actuals	
		MF - Tenant - Prescriptive - Res	13	79	0.010	1.00	1.00	0.96	\$207	\$60	\$0.00	0.000	0	0	1 Avg Appliance	PA TRM	PA IC DB	
	MF - Tenant - Custom - Res	15	275	0.014	1.00	1.00	0.96	\$269	\$125	\$0.00	0.000	0	0	1.5 Ton Unit	PA TRM	PA IC DB		
	MF - Common - Prescriptive - Res	14	274	0.010	1.00	1.00	0.96	\$82	\$60	\$0.00	0.000	0	0	1 Avg Light	PA TRM	PA IC DB		
	MF - Common - Custom - Res	15	9,822	2.784	1.00	1.00	0.96	\$2,947	\$540	\$0.00	0.000	0	0	1 Project	Actuals	Actuals		
	MF - Common - DI - Res	15	5,171	0.595	1.00	1.00	0.96	\$1,477	\$1,034	\$0.00	0.000	0	0	1 Common Space	Actuals	Actuals		
	School Education	15	185	0.020	0.84	1.05	1.01	\$35	\$35	\$0.00	0.000	0	0	1 Wgtd Avg Kit	PA TRM	Co Assumption		
	Energy Efficiency Measures	12	199	0.021	0.72	1.00	1.00	\$42	\$42	\$0.00	0.000	0	0	1 Wgtd Avg Kit	PA TRM	Co Assumption		
	Energy Efficient Homes Program	On-Line Audit	1	130	0.020	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	0	Per HH	EE Consultant	N/A	
		Behavioral 2021	1	54	0.009	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	0	Per HH	CSP	N/A	
Behavioral 2022		1	67	0.011	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	0	Per HH	CSP	N/A		
Behavioral 2023		1	62	0.010	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	0	Per HH	CSP	N/A		
Behavioral 2024		1	57	0.009	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	0	Per HH	CSP	N/A		
Behavioral 2025		1	51	0.008	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	0	Per HH	CSP	N/A		
NC - Townhouse and duplex units		15	1,678	0.806	0.73	0.85	0.85	\$1,185	\$652	\$0.00	0.696	4,010	0	NC Townhouse and Duplex	PA TRM	Co Assumption		
NC - Two-on-Two condominium units		15	1,422	0.484	0.73	0.85	0.85	\$1,004	\$652	\$0.00	0.696	4,010	0	NC Two-on-Two Cond Units	PA TRM	Co Assumption		
NC - Single-family detached units		15	2,780	1.136	0.73	0.85	0.85	\$1,962	\$1,079	\$0.00	0.696	4,010	0	NC Single Family Detached	PA TRM	Co Assumption		
NC - Multi Family Low Rise		15	1,324	0.331	0.73	0.85	0.85	\$934	\$514	\$0.00	0.696	4,010	0	NC MultiFamily Low Rise	PA TRM	Co Assumption		
Weatherization	NC - Manufactured Housing	15	1,739	0.366	0.73	0.85	0.85	\$1,228	\$675	\$0.00	0.696	4,010	0	NC Mfg Housing	PA TRM	Co Assumption		
	NC - Multi Family High Rise	15	1,324	0.331	0.73	0.85	0.85	\$934	\$514	\$0.00	0.700	4,010	0	NC MultiFamily High Rise	PA TRM	Co Assumption		
	Weatherization (WARM PLIUS)	12	1,441	0.144	1.00	1.00	1.00	\$1,441	\$1,441	\$0.00	0.000	0	0	Per HH	Actuals	N/A		
	WARM Extra Measures	12	818	0.057	1.00	1.00	1.00	\$818	\$818	\$0.00	0.000	0	0	Per HH	Actuals	N/A		
	Freezer Recycling - LI	5	691	0.112	1.00	1.00	1.00	\$0	\$88	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB		
	Refrigerator Recycling - LI	6	944	0.152	1.00	1.00	1.00	\$0	\$88	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB		
	Room Air Conditioner Recycling - LI	4	113	0.324	1.00	1.00	1.00	\$0	\$65	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB		
	Dehumidifier Recycling - LI	5	500	0.173	1.00	1.00	1.00	\$0	\$65	\$0.00	0.000	0	0	1 Unit	PA TRM	PA IC DB		
	Clothes Washer - Level 1	11	117	0.012	1.00	1.15	1.09	\$187	\$60	\$0.00	0.250	1,495	0	1 Unit	PA TRM	PA IC DB		
	Clothes Washer - Level 2	11	166	0.017	1.00	1.15	1.09	\$187	\$60	\$0.00	0.250	1,495	0	1 Unit	PA TRM	PA IC DB		
Low Income Energy Efficiency Program	Clothes Washer - Level 3	11	178	0.019	1.00	1.15	1.09	\$187	\$60	\$0.00	0.250	1,495	0					

Appendix D. Table 2: Measure Assumption

West Penn																
Program	Sub-Program	Measure	Measure Life	Verified kWh	Verified kW	NTG	RR kWh	RR kW	Incremental Cost	Modeled Cost	O&M Benefit (\$/Unit/Yr)	Gas Savings (MMBTu/Yr)	Water Savings (Gal/Yr)	Savings Assumption	Savings Source	Incremental Cost Source
Low Income Energy Efficiency Program	LI - Appliances	Dehumidifier	12	240	0.066	1.00	1.15	1.09	\$11	\$55	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Water Heater	10	4,463	0.096	1.00	1.34	1.06	\$64	\$245	\$0.00	0.000	0	1-60 gallon	PA TRM	PA IC DB
		Pool Pump - Variable Speed	10	4,620	0.388	1.00	1.36	1.00	\$424	\$368	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Dishwasher	10	26	0.003	1.00	1.15	1.09	\$316	\$55	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB
		Washer	10	253	0.008	1.00	1.15	1.09	\$316	\$55	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB
		EV Charging Cord - Level 2 - Res	10	96	0.004	1.00	1.36	1.00	\$600	\$60	\$0.00	0.000	0	1 Unit	Energy Star	Co-Assumptions
		Smart Thermostat - Aplncs	11	230	0.000	1.00	1.15	1.09	\$140	\$80	\$0.00	0.000	0	1 Unit controlling 2.5 Ton CAC	PA TRM	PA IC DB
		School Education - LI	15	211	0.026	1.00	1.00	1.00	\$49	\$49	\$0.00	0.000	0	1 Wgt'd Avg Kit	PA TRM	Co Assumption
		LI - EE Kits	12	225	0.026	1.00	1.00	1.00	\$52	\$52	\$0.00	0.000	0	1 Wgt'd Avg Kit	PA TRM	Co Assumption
		Ch-Line Audit - LI	1	130	0.020	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	EE Consultant	N/A
	LI - Behavioral	Behavioral 2021 - LI	1	73	0.012	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A
		Behavioral 2022 - LI	1	113	0.019	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A
		Behavioral 2023 - LI	1	59	0.010	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A
		Behavioral 2024 - LI	1	100	0.017	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A
		Behavioral 2025 - LI	1	50	0.008	1.00	1.00	1.00	\$0	\$0	\$0.00	0.000	0	Per HH	CSP	N/A
		MF - Tenant - DI - Res - LI	12	807	0.135	1.00	1.00	1.00	\$1,211	\$1,211	\$0.00	0.000	0	1 Tenant Space	Actuals	N/A
		MF - Tenant - Prescriptive - Res - LI	14	79	0.010	1.00	1.00	1.00	\$119	\$119	\$0.00	0.000	0	1 Avg Appliance	Actuals	N/A
		MF - Tenant - Custom - Res - LI	15	275	0.119	1.00	1.00	1.00	\$410	\$410	\$0.00	0.000	0	1.5 Ton Unit	PA TRM	N/A
		MF - Common - Prescriptive - Res - LI	14	274	0.010	1.00	1.00	1.00	\$410	\$410	\$0.00	0.000	0	1 Avg Light	PA TRM	N/A
		MF - Common - Custom - Res - LI	15	9,822	2.900	1.00	1.00	1.00	\$14,733	\$14,733	\$0.00	0.000	0	1 Project	Actuals	N/A
	MF - Common - DI - Res - LI	12	37,496	4.500	1.00	1.00	1.00	\$56,245	\$56,245	\$0.00	0.000	0	1 Common Space	Actuals	N/A	
	LI - New Homes	NC - Townhouse and duplex units - LI	15	1,678	0.606	1.00	0.85	0.85	\$1,056	\$790	\$0.00	0.696	4,010	NC Townhouse and Duplex	PA TRM	Co Assumption
		NC - Two-on-Two condominium units - LI	15	1,422	0.484	1.00	0.85	0.85	\$1,004	\$670	\$0.00	0.696	4,010	NC Two on Two Condo Units	PA TRM	Co Assumption
		NC - Single-family detached units - LI	15	2,780	1.136	1.00	0.85	0.85	\$1,962	\$1,300	\$0.00	0.696	4,010	NC Single Family Detached	PA TRM	Co Assumption
		NC - Multi Family Low Rise - LI	15	1,324	0.331	1.00	0.85	0.85	\$934	\$625	\$0.00	0.696	4,010	NC MultiFamily Low Rise	PA TRM	Co Assumption
		NC - Manufactured Housing - LI	15	1,739	0.606	1.00	0.85	0.85	\$1,228	\$815	\$0.00	0.696	4,010	NC Mfg Housing	PA TRM	Co Assumption
		NC - Multi Family High Rise - LI	15	1,324	0.331	1.00	0.85	0.85	\$934	\$625	\$0.00	0.700	4,010	NC MultiFamily High Rise	PA TRM	Co Assumption
		MF - Tenant - DI - SCI - LI	12	807	0.135	1.00	1.00	1.00	\$1,211	\$1,211	\$0.00	0.000	0	1 Tenant Space	Actuals	N/A
		MF - Tenant - Prescriptive - SCI - LI	14	79	0.010	1.00	1.00	1.00	\$119	\$119	\$0.00	0.000	0	1 Avg Appliance	Actuals	N/A
		MF - Tenant - Custom - SCI - LI	15	275	0.119	1.00	1.00	1.00	\$409	\$409	\$0.00	0.000	0	1.5 Ton Unit	PA TRM	N/A
		MF - Common - Prescriptive - SCI - LI	14	274	0.010	1.00	1.00	1.00	\$410	\$410	\$0.00	0.000	0	1 Avg Light	PA TRM	N/A
	Multi Family - SCI	MF - Common - Custom - SCI - LI	15	9,822	2.900	1.00	1.00	1.00	\$14,733	\$14,733	\$0.00	0.000	0	1 Project	Actuals	N/A
		MF - Common - DI - SCI - LI	12	37,496	4.500	1.00	1.00	1.00	\$56,245	\$56,245	\$0.00	0.000	0	1 Common Space	Actuals	N/A
		MF - Tenant - DI - SCI	15	225	0.026	1.00	1.00	0.96	\$200	\$140	\$0.00	0.000	0	1 Tenant Space	Actuals	Actuals
		MF - Tenant - Prescriptive - SCI	13	79	0.010	1.00	1.00	0.96	\$207	\$80	\$0.00	0.000	0	1 Avg Appliance	PA TRM	PA IC DB
MF - Tenant - Custom - SCI		15	275	0.114	1.00	1.00	0.96	\$269	\$125	\$0.00	0.000	0	1.5 Ton Unit	PA TRM	PA IC DB	
MF - Common - Prescriptive - SCI		14	274	0.010	1.00	1.00	0.96	\$82	\$50	\$0.00	0.000	0	1 Avg Light	PA TRM	PA IC DB	
MF - Common - Custom - SCI		15	9,822	2.784	1.00	1.00	0.96	\$2,947	\$540	\$0.00	0.000	0	1 Project	Actuals	Actuals	
MF - Common - DI - SCI		15	5,171	0.965	1.00	1.00	0.96	\$1,477	\$1,034	\$0.00	0.000	0	1 Common Space	Actuals	Actuals	
Air Conditioning - Level 1 <=5.4 Tn - SCI		15	778	0.392	0.51	1.00	0.90	\$1,358	\$195	\$0.00	0.000	0	1-5 ton unit	PA TRM	PA IC DB	
Air Conditioning - Level 1 >5.4 <20 Tn - SCI		15	729	0.422	0.51	1.00	0.90	\$1,014	\$185	\$0.00	0.000	0	1-11 ton unit	PA TRM	PA IC DB	
Air Conditioning - Level 1 >=20 Tn - SCI	15	1,886	0.825	0.51	1.00	0.90	\$99	\$475	\$0.00	0.000	0	1- 20 ton unit	PA TRM	PA IC DB		
Heat Pump - Level 1 <=5.4 Tn - SCI	15	985	0.242	0.51	1.00	0.90	\$1,358	\$250	\$0.00	0.000	0	1 - 5 ton unit	PA TRM	PA IC DB		
Heat Pump - Water & Geot - ES Tier 3 - SCI	15	2,295	0.032	0.51	1.00	0.90	\$8,802	\$575	\$0.00	0.000	0	1-5 ton unit	PA TRM	PA IC DB		
Ductless Mini-Split HP - Level 3 - SCI	15	742	0.060	0.51	1.00	0.90	\$514	\$185	\$0.00	0.000	0	1-1.5 ton unit	PA TRM	PA IC DB		
PTAC - SCI	15	94	0.041	0.51	1.00	0.90	\$363	\$25	\$0.00	0.000	0	1 - 1 ton unit	PA TRM	PA IC DB		
PTHP - SCI	15	190	0.041	0.51	1.00	0.90	\$363	\$50	\$0.00	0.000	0	1 - 1 ton unit	PA TRM	PA IC DB		
Room Air Conditioner - SCI	9	75	0.107	0.51	1.00	0.90	\$0	\$20	\$0.00	0.000	0	1-1 ton unit	PA TRM	PA IC DB		
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Smart Thermostat - Rebate - SCI	8	183	0.000	0.51	1.00	0.90	\$204	\$50	\$0.00	0.000	0	1-5 Ton Unit	MA TRM	MA TRM
		HVAC - Custom - SCI	15	36,691	5.205	0.51	1.00	0.90	\$11,007	\$9,175	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption
		Circulating Pump (Mid Strm) - SCI	15	159	0.000	0.51	1.00	0.90	\$38	\$40	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB
		HVAC - Maintenance - SCI	10	380	0.106	0.51	1.00	0.90	\$175	\$80	\$0.00	0.000	0	1-5 Ton Unit	PA TRM	Co Assumption
		Furnace Fan (Retrofit or New to ECM) - SCI	15	122	0.038	0.51	1.00	0.90	\$242	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Lighting Control (Daylight & Occupancy) - SCI	8	427	0.104	0.70	0.98	0.96	\$80	\$35	\$0.00	0.000	0	1 unit controller	PA TRM	PA IC DB
		Linear Fluorescent - SCI	10	119	0.016	0.70	0.98	0.96	\$6	\$10	\$0.00	0.000	0	1-3 lamp fixture	PA TRM	MA TRM
		LED Linear - SCI	15	133	0.018	0.70	0.98	0.96	\$31	\$11	\$0.92	0.000	0	1- 4 lamp troughler	PA TRM	PA IC DB
		LED Channel Signage - SCI	15	369	0.026	0.70	0.98	0.96	\$35	\$30	\$0.46	0.000	0	Per LF of Letter	PA TRM	Co Assumption
		Exit Sign - SCI	15	163	0.018	0.70	0.98	0.96	\$18	\$13	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
	LED Fixture External - SCI	15	561	0.000	0.70	0.98	0.96	\$203	\$45	\$2.06	0.000	0	1 Unit	PA TRM	PA IC DB	
	LED Fixture Internal - SCI	15	133	0.021	0.70	0.98	0.96	\$40	\$11	\$2.61	0.000	0	1 Unit	PA TRM	PA IC DB	
	LED Lamp - SCI	14	25	0.004	0.70	0.98	0.96	\$5	\$2	\$0.50	0.000	0	1 Unit	PA TRM	PA IC DB	
	Lighting - Other - SCI	15	21,560	4.224	0.70	0.98	0.96	\$6,600	\$1,760	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption	
	Street & Area Lighting (Customer Owned) - SCI	12	592	0.000	0.70	0.98	0.96	\$173	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
	LED Reach in Refrig / Freezer Light - SCI	8	602	0.090	0.70	0.98	0.96	\$59	\$50	\$1.73	0.000	0	1 Door	PA TRM	PA IC DB	
	Lighting - Custom - SCI	15	21,560	4.224	0.70	0.98	0.96	\$6,600	\$1,760	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption	
	Network Lighting Control - SCI	8	2	0.000	0.70	0.98	0.96	\$1	\$0	\$0.00	0.000	0	Per sq-ft of building lighting controlled	PA TRM	PA IC DB	
	Linear Lamp - MS - SCI	15	26	0.006	0.70	1.00	1.00	\$7	\$2	\$0.46	0.000	0	1- Unit	PA TRM	PA IC DB	
	High/Low Bay Lamp - MS - SCI	12	993	0.163	0.70	1.00	1.00	\$162	\$80	\$2.57	0.000	0	1 Unit	PA TRM	PA IC DB	
	LED Fixture - MS - SCI	15	88	0.022	0.70	1.00	1.00	\$72	\$7	\$0.92	0.000	0	1- Unit	PA TRM	PA IC DB	
	ECM Evap Fan Motor - SCI	15	1,675	0.162	0.51	1.00	0.90	\$227	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB	
	Evap Fan Controls - SCI	10	1,278	0.131	0.51	1.00	0.90	\$532	\$100	\$0.00	0.000	0	1 Unit	PA TRM	MA TRM	
	Refrigerator - Reach In - SCI	12	453	0.047	0.51	1.00	0.90	\$729	\$65	\$0.00	0.000	0	1-30CF Unit	PA TRM	MA TRM	
	Freezer - Reach In - SCI	12	850	0.087	0.51	1.00	0.90	\$977	\$65	\$0.00	0.000	0	1-30CF Unit	PA TRM	PA IC DB	
	Refrigerated Case Cover - SCI	5	44	0.000	0.51	1.00	0.90	\$38	\$10	\$0.00	0.000	0	Per LF of Case	PA TRM	PA IC DB	
	Anti Sweat Heater Controls - SCI	12	706	0.071	0.51	1.00	0.90	\$418	\$30	\$0.00	0.000	0	1-unit	PA TRM	MA TRM	

Appendix D. Table 2: Measure Assumption

West Penn																
Program	Sub-Program	Measure	Measure Life	Verified kWh	Verified kW	NTG	RR kWh	RR kW	Incremental Cost	Modeled \$/kWh	O&M Benefit (\$/Unit/Yr)	Gas Savings (MMBTU/Yr)	Water Savings (Gal/Yr)	Savings Assumption	Savings Source	Incremental Cost Source
C&I Energy Solutions for Business Program - Small	Prescriptive - SCI	Strip Curtain - SCI	4	177	0.020	0.51	1.00	0.90	\$10	\$2	\$0.00	0.000	0	Per SF	PA TRM	PA IC DB
		Ice Machine - SCI	8	479	0.081	0.51	1.00	0.90	\$378	\$50	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB
		Beverage Vending Machine - Controls - SCI	5	1,410	0.000	0.51	1.00	0.90	\$180	\$30	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		Beverage Vending Machine - Energy Star - SCI	5	1,410	0.000	0.51	1.00	0.90	\$180	\$50	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		Steam Cooker - SCI	12	14,105	2.508	0.51	1.00	0.90	\$351	\$50	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB
		Fryer - SCI	12	2,458	0.401	0.51	1.00	0.90	\$1,038	\$200	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB
		Griddle - SCI	12	2,596	0.480	0.51	1.00	0.90	\$950	\$200	\$0.00	0.000	0	1-Unit	PA TRM	PA IC DB
		Hot Food Holding Cabinet - SCI	12	1,730	0.296	0.51	1.00	0.90	\$421	\$250	\$0.00	0.000	0	1-15 CU. FT. unit	PA TRM	PA IC DB
		Combination Oven - SCI	12	18,134	3.354	0.51	1.00	0.90	\$2,512	\$600	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		Convection Oven - SCI	12	1,337	0.358	0.51	1.00	0.90	\$539	\$400	\$0.00	0.000	0	14-1/2 size unit	PA TRM	PA IC DB
		Dishwasher - SCI	10	3,014	0.372	0.51	1.00	0.90	\$882	\$200	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
		Induction Warmer/Rethernalizer Well - SCI	15	400	0.041	0.51	1.00	0.90	\$500	\$200	\$0.00	0.000	0	1-Two well unit	Co Assumption	Co Assumption
		Coffee Brewer - SCI	15	1,331	0.137	0.51	1.00	0.90	\$200	\$100	\$0.00	0.000	0	1-large batch Type II Unit	Energy Star	Co Assumption
		Pre-Rinse Sprayer - SCI	8	478	0.074	0.51	1.00	0.90	\$5	\$35	\$0.00	0.000	0	1-unit	PA TRM	Co Assumption
		Agricultural Process Lighting	15	2,216	0.189	0.50	1.00	0.85	\$950	\$222	\$2.31	0.000	0	1 Unit	PA TRM	Co Assumption
		Auto Milker Takeoff	10	434	0.063	0.50	1.00	0.85	\$200	\$90	\$0.00	0.000	0	Per Unit	PA TRM	Co Assumption
		Dairy Scroll Compressor	15	974	0.141	0.50	1.00	0.85	\$1,000	\$500	\$0.00	0.000	0	Per Unit	PA TRM	Co Assumption
		HE Ventilation Fans	15	974	0.163	0.50	1.00	0.85	\$250	\$100	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		Heat Reclaimer	15	7,860	1.136	0.50	1.00	0.85	\$4,300	\$1,000	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		Livestock Waterer	10	521	0.000	0.50	1.00	0.85	\$510	\$100	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		Dairy Vac Pump VSD Control	15	19,394	3.528	0.50	1.00	0.85	\$3,400	\$1,000	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		Low Pressure Irrigation	5	3,378	7.465	0.50	1.00	0.85	\$2,026	\$250	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		Custom - Agricultural	15	9,842	0.955	0.50	1.00	0.85	\$2,953	\$1,000	\$0.00	0.000	0	1 Unit	PA TRM	Co Assumption
		Dairy Refrigeration Tune-Up	1	262	0.028	0.50	1.00	0.85	\$194	\$50	\$0.00	0.000	0	1 Refrigerator Cooler	WI TRM	WI TRM
		Engine Block Heater Timer	15	738	0.000	0.50	1.00	0.85	\$25	\$10	\$0.00	0.000	0	1 Unit	PA TRM	WI TRM
		Street Lighting (Taniff / Utility Owned(EMU))	4	49,105	3.350	0.50	1.00	0.90	\$1,773	\$40	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Street Lighting (Taniff / Customer Owned(MU))	12	604	0.000	1.00	1.00	0.96	\$1,713	\$40	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Refrigerator Recycling - SCI	6	964	0.132	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Freezer Recycling - SCI	5	670	0.092	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Room Air Conditioner Recycling - SCI	4	213	0.253	0.50	1.00	0.90	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Dehumidifiers Recycling - SCI	5	467	0.147	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		EV Charging Cord - Level 2 - SCI	10	31	0.003	0.50	1.00	0.85	\$500	\$50	\$0.00	0.000	0	1 Unit	Energy Star	Co Assumption
		Clothes Washer Level 1&2 - SCI	11	144	0.014	0.50	1.00	0.85	\$187	\$25	\$0.00	0.250	1.495	1 Unit	PA TRM	PA IC DB
		Clothes Washer Level 3 - SCI	15	155	0.015	0.50	1.00	0.85	\$187	\$25	\$0.00	0.250	1.495	1 Unit	PA TRM	PA IC DB
		Clothes Dryer - SCI	12	16	0.002	0.50	1.00	0.85	\$358	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Refrigerator Level 1&2 - SCI	14	77	0.011	0.50	1.00	0.85	\$75	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Refrigerator Level 3 - SCI	14	103	0.014	0.50	1.00	0.85	\$75	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Water Heater - Heat Pump - SCI	10	776	0.154	0.50	1.00	0.85	\$651	\$500	\$0.00	0.000	0	1-unit	PA TRM	PA IC DB
Dehumidifier - SCI	12	209	0.044	0.50	1.00	0.85	\$11	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
Water Cooler - SCI	10	204	0.019	0.50	1.00	0.85	\$49	\$25	\$0.00	0.000	0	1 unit	PA TRM	Co Assumption		
Monitor - SCI	4	24	0.003	0.51	1.00	0.85	\$2	\$5	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB		
Computer - SCI	4	119	0.014	0.51	1.00	0.85	\$19	\$5	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB		
Uninterruptible Power Supply (UPS) - SCI	10	1,020	0.090	0.51	1.00	0.85	\$295	\$102	\$0.00	0.000	0	1 - 5kVA Unit	CI&IA TRM	CI&IA TRM		
Imaging - SCI	6	235	0.027	0.51	1.00	0.85	\$11	\$10	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
Small Network - SCI	5	237	0.027	0.51	1.00	0.85	\$30	\$15	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
Advanced Pwr Strip - SCI	5	85	0.000	0.51	1.00	0.85	\$34	\$10	\$0.00	0.000	0	1- Advanced Power Strip	PA TRM	Co Assumption		
Custom - Process Improvement - SCI	15	26,786	2.865	0.80	1.00	0.90	\$0,036	\$2,679	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - Compressed Air - SCI	13	98,101	11,950	0.80	1.00	0.90	\$29,430	\$9,810	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - Motors - Three Phase - SCI	15	22,307	2,229	0.80	1.00	0.90	\$13,384	\$2,231	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - Refrigeration - SCI	15	95,446	6,948	0.80	1.00	0.90	\$57,268	\$9,545	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - Equipment/Sieves - SCI	15	36,967	3,585	0.80	1.00	0.90	\$10,820	\$3,607	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - HVAC/Chlr/Cntrs - SCI	15	36,691	5,205	0.80	1.00	0.90	\$22,015	\$3,670	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - VFDs < 10HP - SCI	15	5,912	0.900	0.80	1.00	0.90	\$1,774	\$600	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - VFDs > 10 HP - SCI	15	33,250	0.900	0.80	1.00	0.90	\$9,975	\$3,325	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - Bldg Improvements - SCI	15	49,110	13,052	0.80	1.00	0.90	\$4,733	\$9,822	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - New Construction - SCI	15	32,010	1,860	0.80	1.00	0.90	\$9,803	\$3,201	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - Audit & Education - SCI	0	0	0.000	0.80	1.00	0.90	\$0	\$5,000	\$0.00	0.000	0	1 Project	N/A	N/A		
Building Tune Up - SCI	15	103,423	12,455	0.84	1.00	1.00	\$45,802	\$34,130	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption		
Virtual/Meter Data Commissioning - SCI	15	32,595	3,721	0.90	1.00	1.00	\$9,778	\$3,259	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption		
Retrocommissioning - SCI	15	95,446	7,720	0.84	1.00	1.00	\$29,434	\$9,545	\$0.00	0.000	0	1 Project	Actuals	Co Assumption		
Building Operations Training - SCI	5	54,478	7,300	0.84	1.00	1.00	\$5,000	\$5,450	\$0.00	0.000	0	1 Unit	Co Assumption	Co Assumption		
Energy Consultation - SCI	0	0	0.000	0.80	1.00	1.00	\$0	\$0	\$0.00	0.000	0	N/A	N/A	N/A		
Audits - SCI	0	0	0.000	0.80	1.00	1.00	\$0	\$5,000	\$0.00	0.000	0	1 Project	N/A	N/A		
MF - Tenant - DI - LCI	15	225	0.025	0.90	1.00	0.96	\$200	\$140	\$0.00	0.000	0	1 Tenant Space	Actuals	Actuals		
MF - Tenant - Prescriptive - LCI	12	79	0.010	0.90	1.00	0.96	\$207	\$50	\$0.00	0.000	0	1 Avg Applnce	PA TRM	PA IC DB		
MF - Tenant - Custom - LCI	15	275	0.114	0.90	1.00	0.96	\$269	\$125	\$0.00	0.000	0	1.5 Ton Unit	PA TRM	PA IC DB		
MF - Common - Prescriptive - LCI	14	274	0.010	0.90	1.00	0.96	\$82	\$50	\$0.00	0.000	0	1 Avg Light	PA TRM	PA IC DB		
MF - Common - Custom - LCI	15	9,822	2,784	0.90	1.00	0.96	\$2,947	\$440	\$0.00	0.000	0	1 Project	Actuals	Actuals		
MF - Common - DI - LCI	15	5,171	0.595	0.90	1.00	0.96	\$1,477	\$1,034	\$0.00	0.000	0	1 Common Space	Actuals	Actuals		
Air Conditioning - Level 1 <=5.4 Tn - LCI	15	778	0.392	0.51	1.00	0.90	\$1,358	\$195	\$0.00	0.000	0	1-5 ton unit	PA TRM	PA IC DB		
Air Conditioning - Level 1 >5.4 < 20 Tn - LCI	15	729	0.422	0.51	1.00	0.90	\$1,014	\$185	\$0.00	0.000	0	1- 11 ton unit	PA TRM	PA IC DB		
Air Conditioning - Level 1 >=20 Tn - LCI	15	1,886	0.825	0.51	1.00	0.90	\$99	\$475	\$0.00	0.000	0	1- 20 ton unit	PA TRM	PA IC DB		
Heat Pump - Level 1 <=5.4 Tn - LCI	15	985	0.242	0.51	1.00	0.90	\$1,358	\$250	\$0.00	0.000	0	1- 5 ton unit	PA TRM	PA IC DB		
Heat Pump - Water & Geot - ES Tier 3 - LCI	15	2,295	0.032	0.51	1.00	0.90	\$8,802	\$575	\$0.00	0.000	0	1-5 ton unit	PA TRM	PA IC DB		
Ductless Mini-Split HP - Level 3 - LCI	15	579	0.067	0.51	1.00	0.90	\$498	\$185	\$0.00	0.000	0	1-1.5 ton unit	PA TRM	PA IC DB		

Appendix D. Table 2: Measure Assumption¹

West Penn																
Program	Sub-Program	Measure	Measure Life	Verified kWh	Verified kW	NTG	RR kWh	RR kW	Incremental Cost	Modeled Rebate	O&M Benefit (\$/Unit/Yr)	Gas Savings (MMBTU/Yr)	Water Savings (Gal/Yr)	Savings Assumption	Savings Source	Incremental Cost Source
C&I Energy Solutions for Business Program - Large	Prescriptive - LCI	PTAC - LCI	15	84	0.041	0.51	1.00	0.90	\$363	\$25	\$0.00	0.000	0	1 - 1 ton unit	PA TRM	PA IC DB
		PTHP - LCI	15	180	0.041	0.51	1.00	0.90	\$363	\$50	\$0.00	0.000	0	1 - 1 ton unit	PA TRM	PA IC DB
		Room Air Conditioner - LCI	9	75	0.107	0.51	1.00	0.90	\$0	\$20	\$0.00	0.000	0	1-1 ton unit	PA TRM	PA IC DB
		Smart Thermostat - Rebate - LCI	8	183	0.000	0.51	1.00	0.90	\$204	\$50	\$0.00	0.000	0	1-5 Ton Unit	MA TRM	MA TRM
		HVAC - Custom - LCI	15	219,995	56,993	0.50	1.00	0.90	\$65,998	\$55,500	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption
		Circulating Pump (Mid Strm) - LCI	15	794	0.000	0.51	1.00	0.90	\$38	\$40	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB
		HVAC - Maintenance - LCI	10	360	0.106	0.51	1.00	0.90	\$175	\$90	\$0.00	0.000	0	1-5 Ton Unit	PA TRM	Co Assumption
		Furnace Fan (Retrofit or New to ECM) - LCI	15	122	0.038	0.51	1.00	0.90	\$242	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Lighting Controls (Daylight & Occupancy) - LCI	8	427	0.104	0.70	0.98	0.96	\$80	\$35	\$0.00	0.000	0	1 unit controller	PA TRM	PA IC DB
		Linear Fluorescent - LCI	10	119	0.016	0.70	0.98	0.96	\$6	\$10	\$0.00	0.000	0	1-3 lamp fixture	PA TRM	MA TRM
		LED Linear - LCI	15	133	0.018	0.70	0.98	0.96	\$31	\$11	\$0.92	0.000	0	1 - 4 lamp trougher	PA TRM	PA IC DB
		LED Channel Signage - LCI	15	369	0.026	0.70	0.98	0.96	\$35	\$30	\$0.46	0.000	0	Per LF of Letter	PA TRM	Co Assumption
		Exit Sign - LCI	15	163	0.018	0.70	0.98	0.96	\$18	\$13	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		LED Fixture External - LCI	15	591	0.000	0.70	0.98	0.96	\$203	\$45	\$2.06	0.000	0	1 Unit	PA TRM	PA IC DB
		LED Fixture Internal - LCI	15	133	0.021	0.70	0.98	0.96	\$40	\$11	\$2.61	0.000	0	1 Unit	PA TRM	PA IC DB
		LED Lamp - LCI	14	25	0.004	0.70	0.98	0.96	\$5	\$2	\$0.50	0.000	0	1 Unit	PA TRM	PA IC DB
		Lighting - Other - LCI	15	21,560	4,224	0.70	0.98	0.96	\$6,600	\$1,760	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption
		Street & Area Lighting (Customer Owned) - LCI	12	592	0.000	0.70	0.98	0.96	\$173	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		LED Reach in Refrig / Frzr Light - LCI	8	602	0.090	0.70	0.98	0.96	\$59	\$50	\$1.73	0.000	0	1 Door	PA TRM	PA IC DB
		Lighting - Custom - LCI	15	21,560	4,224	0.70	0.98	0.96	\$6,600	\$1,760	\$0.00	0.000	0	1 Project	Co Assumption	Co Assumption
		Network Lighting Control - LCI	8	2	0.000	0.70	0.98	0.96	\$1	\$0	\$0.00	0.000	0	Per sq-ft of building lighting controlled	PA TRM	PA IC DB
		Linear Lamp - MS - LCI	15	26	0.006	0.51	1.00	0.90	\$7	\$2	\$0.46	0.000	0	1 Unit	PA TRM	PA IC DB
		High/Low Bay Lamp - MS - LCI	12	993	0.163	0.70	1.00	1.00	\$162	\$80	\$2.57	0.000	0	1 Unit	PA TRM	PA IC DB
		LED Fixture - MS - LCI	15	88	0.022	0.70	1.00	1.00	\$72	\$7	\$0.92	0.000	0	1 Unit	PA TRM	PA IC DB
		ECM Evap Fan Motor - LCI	15	1,575	0.162	0.51	1.00	0.90	\$227	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Evap Fan Controls - LCI	10	1,278	0.011	0.50	1.00	0.90	\$522	\$100	\$0.00	0.000	0	1 Unit	PA TRM	MA TRM
		Refrigerator - Reach In - LCI	12	453	0.047	0.51	1.00	0.90	\$729	\$65	\$0.00	0.000	0	1-30CF Unit	PA TRM	MA TRM
		Freezer - Reach In - LCI	12	850	0.087	0.51	1.00	0.90	\$977	\$65	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Refrigerated Case Cover - LCI	5	44	0.000	0.51	1.00	0.90	\$38	\$10	\$0.00	0.000	0	Per LF of Case	PA TRM	PA IC DB
		Anti Sweat Heater Control - LCI	12	796	0.011	0.50	1.00	0.90	\$418	\$30	\$0.00	0.000	0	1 Unit	PA TRM	MA TRM
		Strip Curtain - LCI	4	177	0.020	0.51	1.00	0.90	\$10	\$2	\$0.00	0.000	0	Per SF	PA TRM	PA IC DB
		Ice Machine - LCI	8	479	0.081	0.51	1.00	0.90	\$378	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Beverage Vending Machine - Controls - LCI	5	1,410	0.000	0.51	1.00	0.90	\$180	\$30	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB
		Beverage Vending Machine - Energy Star - LCI	5	1,410	0.000	0.51	1.00	0.90	\$180	\$50	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB
		Steam Cooker - LCI	12	14,105	2,628	0.50	1.00	0.90	\$351	\$300	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB
		Fryer - LCI	12	2,456	0.401	0.51	1.00	0.90	\$1,038	\$200	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Griddle - LCI	12	2,596	0.480	0.51	1.00	0.90	\$950	\$200	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Hot Food Holding Cabinet - LCI	12	1,730	0.256	0.51	1.00	0.90	\$421	\$250	\$0.00	0.000	0	1-15 CU FT unit	PA TRM	PA IC DB
		Combination Oven - LCI	12	18,134	3,564	0.50	1.00	0.90	\$2,512	\$350	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Convection Oven - LCI	12	1,937	0.358	0.51	1.00	0.90	\$539	\$400	\$0.00	0.000	0	1-full size unit	PA TRM	PA IC DB
		Dishwasher - LCI	10	3,014	0.372	0.51	1.00	0.90	\$882	\$200	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB
		Induction Warmer/Rethermalizer Well - LCI	15	400	0.041	0.51	1.00	0.90	\$500	\$200	\$0.00	0.000	0	1-two well unit	Co Assumption	Co Assumption
		Coffee Brewer - LCI	15	1,331	0.137	0.51	1.00	0.90	\$200	\$100	\$0.00	0.000	0	1-large batch Type II Unit	Energy Star	Co Assumption
		Pre-Rinse Sprayer - LCI	8	478	0.074	0.51	1.00	0.90	\$6	\$60	\$0.00	0.000	0	1 unit	PA TRM	Co Assumption
		Refrigerator Recycling - LCI	6	964	0.132	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Freezer Recycling - LCI	5	670	0.092	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Room Air Conditioner Recycling - LCI	4	113	0.213	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
		Dehumidifiers Recycling - LCI	5	467	0.147	0.47	1.00	0.85	\$0	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB
EV Charging Cord - Level 2 - LCI	10	31	0.003	0.50	1.00	0.85	\$500	\$25	\$0.00	0.000	0	1 Unit	Energy Star	Co Assumption		
Clothes Washer Level 1&2 - LCI	11	144	0.014	0.50	1.00	0.85	\$187	\$25	\$0.00	0.250	1.495	1 Unit	PA TRM	PA IC DB		
Clothes Washer Level 3 - LCI	11	155	0.015	0.50	1.00	0.85	\$187	\$50	\$0.00	0.250	1.495	1 Unit	PA TRM	PA IC DB		
Clothes Dryer - LCI	12	16	0.002	0.50	1.00	0.85	\$358	\$30	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
Refrigerator Level 1& 2 - LCI	14	77	0.011	0.50	1.00	0.85	\$75	\$50	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
Refrigerator Level 3 - LCI	14	103	0.014	0.50	1.00	0.85	\$75	\$35	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
Water Heater - Heat Pump - LCI	10	796	0.154	0.50	1.00	0.85	\$651	\$500	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB		
Freezer - LCI	11	32	0.004	0.50	1.00	0.85	\$43	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
Dehumidifier - LCI	12	209	0.044	0.50	1.00	0.85	\$11	\$25	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
Water Cooler - LCI	10	204	0.019	0.50	1.00	0.85	\$49	\$25	\$0.00	0.000	0	1 unit	PA TRM	Co Assumption		
Monitor - LCI	4	24	0.003	0.51	1.00	0.85	\$2	\$5	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB		
Computer - LCI	4	116	0.014	0.51	1.00	0.85	\$19	\$5	\$0.00	0.000	0	1 unit	PA TRM	PA IC DB		
Uninterruptible Power Supply (UPS) - LCI	10	1,020	0.099	0.51	1.00	0.85	\$295	\$102	\$0.00	0.000	0	1 - SKVA Unit	CMUA TRM	CMUA TRM		
Imaging - LCI	6	235	0.027	0.51	1.00	0.85	\$11	\$10	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
Small Network - LCI	5	237	0.027	0.51	1.00	0.85	\$30	\$15	\$0.00	0.000	0	1 Unit	PA TRM	PA IC DB		
Advanced Power Strip - LCI	5	85	0.000	0.51	1.00	0.85	\$34	\$10	\$0.00	0.000	0	1- Advanced Power Strip	PA TRM	Co Assumption		
Custom - Process Improvement - LCI	15	197,108	22,197	0.80	1.00	0.90	\$59,132	\$19,711	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - Compressed Air - LCI	15	269,690	32,152	0.80	1.00	0.90	\$80,907	\$26,969	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - Motors - Three Phase - LCI	15	135,192	16,492	0.80	1.00	0.90	\$81,115	\$13,519	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - Refrigerator - LCI	15	126,914	7,071	0.80	1.00	0.90	\$78,149	\$12,691	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - Equipment/Servers - LCI	15	180,335	17,926	0.80	1.00	0.90	\$54,100	\$18,033	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - HVAC/Chlr/Cntrs - LCI	15	219,995	56,993	0.80	1.00	0.90	\$131,997	\$21,999	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - VFDs < 10HP - LCI	15	5,912	0.900	0.80	1.00	0.90	\$1,774	\$600	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - VFDs > 10HP - LCI	15	33,250	0.900	0.80	1.00	0.90	\$9,975	\$3,325	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - Bldg Improvements - LCI	15	49,110	13,052	0.80	1.00	0.90	\$14,733	\$9,822	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - New Construction - LCI	15	56,438	17,848	0.80	1.00	0.90	\$16,931	\$5,644	\$0.00	0.000	0	1 Project	Actuals	Actuals		
Custom - Audit & Education - LCI	1	0	0.000	0.80	1.00	0.90	\$0	\$10,000	\$0.00	0.000	0	N/A	N/A	N/A		
Building Tune Up - LCI	5	395,714	83,714	0.84	1.00	1.00	\$175,573	\$123,601	\$0.00	0.000	0	Co Assumption	Co Assumption	Co Assumption		
Virtual/Meter Data Commissioning - LCI	5	32,595	3,721	0.90	1.00	1.00	\$0,778	\$3,259	\$0.00	0.000	0	Co Assumption	Co Assumption	Co Assumption		
Retrocommissioning - LCI	15	532,499	131,670	0.84	1.00	1.00	\$159,750	\$53,250	\$0.00	0.000	0	1 Project	Actuals	Co Assumption		
Building Operations Training - LCI	5	54,478	7,300	0.84	1.00	1.00	\$5,000	\$5,450	\$0.00	0.000	0	1 Unit	Co Assumption	Co Assumption		
Energy Consultation - LCI	0	0	0.000	0.8												

Appendix D, Table 3: Avoided Cost Outputs

West Penn

PA ACT 129 Program Year	Year	West Penn Zone Summer On-Peak (\$/MWh)	West Penn Zone Summer Off-Peak (\$/MWh)	West Penn Zone Winter On-Peak (\$/MWh)	West Penn Zone Winter Off-Peak (\$/MWh)	West Penn Zone Shoulder On-Peak (\$/MWh)	West Penn Zone Shoulder Off-Peak (\$/MWh)	Generation Capacity (\$/kW/year)	Transmission Capacity (\$/kW/year)	Distribution Capacity (\$/kW/year)	Avoided Natural Gas Fuel Costs (\$/MMBTU)	
13	2022	\$31.91	\$22.23	\$41.61	\$33.67	\$31.40	\$24.25	\$52.12	\$0.17	\$23.38	\$2.68	Segment 1
14	2023	\$31.69	\$22.67	\$41.37	\$34.34	\$31.22	\$24.73	\$53.16	\$0.17	\$23.85	\$2.62	
15	2024	\$32.33	\$23.12	\$42.20	\$35.03	\$31.84	\$25.23	\$54.23	\$0.18	\$24.32	\$2.67	
16	2025	\$32.97	\$23.59	\$43.05	\$35.73	\$32.48	\$25.73	\$55.31	\$0.18	\$24.81	\$2.75	
17	2026	\$35.29	\$24.89	\$45.55	\$37.24	\$34.53	\$26.95	\$56.42	\$0.18	\$25.31	\$2.94	Segment 2
18	2027	\$37.05	\$26.11	\$48.87	\$39.64	\$36.54	\$28.38	\$57.55	\$0.19	\$25.81	\$3.13	
19	2028	\$38.98	\$27.44	\$52.56	\$42.29	\$38.73	\$29.95	\$58.70	\$0.19	\$26.33	\$3.34	
20	2029	\$40.82	\$28.72	\$55.57	\$44.47	\$40.67	\$31.35	\$59.87	\$0.20	\$26.86	\$3.52	
21	2030	\$42.01	\$29.55	\$58.05	\$46.30	\$42.11	\$32.40	\$61.07	\$0.20	\$27.39	\$3.66	
22	2031	\$43.61	\$30.66	\$61.03	\$48.47	\$43.84	\$33.66	\$62.29	\$0.20	\$27.94	\$3.83	
23	2032	\$45.62	\$32.05	\$65.52	\$51.47	\$46.10	\$35.28	\$63.54	\$0.21	\$28.50	\$4.05	Segment 3
24	2033	\$47.28	\$33.21	\$68.76	\$53.62	\$47.90	\$36.59	\$64.81	\$0.21	\$29.07	\$4.22	
25	2034	\$48.85	\$34.30	\$71.77	\$55.61	\$49.57	\$37.81	\$66.10	\$0.22	\$29.65	\$4.38	
26	2035	\$49.28	\$34.61	\$72.33	\$55.93	\$49.93	\$38.13	\$67.43	\$0.22	\$30.24	\$4.40	
27	2036	\$49.81	\$34.99	\$73.10	\$56.39	\$50.40	\$38.53	\$68.77	\$0.22	\$30.85	\$4.44	
28	2037	\$51.07	\$35.87	\$75.43	\$57.92	\$51.72	\$39.52	\$70.15	\$0.23	\$31.47	\$4.56	
29	2038	\$52.20	\$36.66	\$77.43	\$59.24	\$52.87	\$40.39	\$71.55	\$0.23	\$32.10	\$4.66	
30	2039	\$53.10	\$37.30	\$78.96	\$60.23	\$53.77	\$41.09	\$72.98	\$0.24	\$32.74	\$4.74	
31	2040	\$54.34	\$38.16	\$81.18	\$61.69	\$55.04	\$42.04	\$74.44	\$0.24	\$33.39	\$4.85	
32	2041	\$55.59	\$39.04	\$83.43	\$63.18	\$56.34	\$43.02	\$75.93	\$0.25	\$34.06	\$4.97	