

# **Semi-Annual Report to the Pennsylvania Public Utility Commission**

**Phase IV of Act 129**

**Program Year 13**

**(June 1, 2021 – May 31, 2022)**

For Pennsylvania Act 129 of 2008

Energy Efficiency and Conservation Plan

Prepared by ADM

and the FirstEnergy Pennsylvania EDCs for:

Metropolitan Edison Company	M-2020-3020820
Pennsylvania Electric Company	M-2020-3020821
Pennsylvania Power Company	M-2020-3020822
West Penn Power Company	M-2020-3020823

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## Acronyms

BDR	Behavioral Demand Response
C&I	Commercial and Industrial
CSP	Conservation Service Provider or Curtailment Service Provider
DLC	Direct Load Control
DR	Demand Response
EDC	Electric Distribution Company
EDT	Eastern Daylight Time
EE&C	Energy Efficiency and Conservation
EM&V	Evaluation, Measurement, and Verification
EUL	Effective Useful Life
GNI	Government, Non-Profit, Institutional
HVAC	Heating, Ventilating, and Air Conditioning
ICSP	Implementation Conservation Service Provider
kW	Kilowatt
kWh	Kilowatt-hour
LED	Light-Emitting Diode
LIURP	Low-Income Usage Reduction Program
M&V	Measurement and Verification
MW	Megawatt
MWh	Megawatt-hour
NTG	Net-to-Gross
P4TD	Phase IV to Date
PA PUC	Pennsylvania Public Utility Commission
PSA	Phase IV to Date Preliminary Savings Achieved; equal to VTD + PYTD
PSA+CO	PSA savings plus Carryover from Phase III
PY	Program Year: e.g., PY13, from June 1, 2021 to May 31, 2022
PYRTD	Program Year Reported to Date
PYVTD	Program Year Verified to Date
RTD	Phase IV to Date Reported Gross Savings
SWE	Statewide Evaluator
TRC	Total Resource Cost
TRM	Technical Reference Manual
VTD	Phase IV to Date Verified Gross Savings

## Types of Savings

**Gross Savings:** The change in energy consumption and/or peak demand that results directly from program-related actions taken by participants in an EE&C program, regardless of why they participated.

**Net Savings:** The total change in energy consumption and/or peak demand that is attributable to an EE&C program. Depending on the program delivery model and evaluation methodology, the net savings estimates may differ from the gross savings estimate due to adjustments for the effects of free riders, changes in codes and standards, market effects, participant and nonparticipant spillover, and other causes of changes in energy consumption or demand not directly attributable to the EE&C program.

**Reported Gross:** Also referred to as *ex ante* (Latin for “beforehand”) savings. The energy savings and peak demand reduction values calculated by the EDC or its program Implementation Conservation Service Providers (ICSP) and stored in the program tracking system.

**Verified Gross:** Also referred to as *ex post* (Latin for “from something done afterward”) gross savings. The energy savings and peak demand reduction estimates reported by the independent evaluation contractor after the gross impact evaluation and associated M&V efforts have been completed.

**Verified Net:** Also referred to as *ex post* net savings. The energy savings and peak demand reduction estimates reported by the independent evaluation contractor after application of the results of the net impact evaluation. Typically calculated by multiplying the verified gross savings by a net-to-gross (NTG) ratio.

**Annual Savings:** Energy savings and demand reduction expressed on an annual basis, or the amount of energy and/or peak demand an EE&C measure or program can be expected to save over the course of a typical year. Annualized savings are noted as MWh/year or MW/year. The Pennsylvania TRM provides algorithms and assumptions to calculate annual savings, and Act 129 compliance targets for consumption reduction are based on the sum of the annual savings estimates of installed measures.

**Lifetime Savings:** Energy savings and demand reduction expressed in terms of the total expected savings over the useful life of the measure. Typically calculated by multiplying the annual savings of a measure by its effective useful life. The TRC Test uses savings from the full lifetime of a measure to calculate the cost-effectiveness of EE&C programs.

**Program Year Reported to Date (PYRTD):** The reported gross energy savings and peak demand reduction achieved by an EE&C program or portfolio within the current program year. PYTD values for energy efficiency will always be reported gross savings in a semi-annual report.

**Program Year Verified to Date (PYVTD):** The verified gross energy savings and peak demand reduction achieved by an EE&C program or portfolio within the current program year.

**Phase IV to Date (P4TD):** The energy savings and peak demand reduction achieved by an EE&C program or portfolio within Phase IV of Act 129. Reported in several permutations described below.

**Phase IV to Date Reported (RTD):** The sum of the reported gross savings recorded to date in Phase IV of Act 129 for an EE&C program or portfolio.

**Phase IV to Date Verified (VTD):** The sum of the verified gross savings recorded to date in Phase IV of Act 129 for an EE&C program or portfolio, as determined by the impact evaluation finding of the independent evaluation contractor.

**Phase IV to Date Preliminary Savings Achieved (PSA):** The sum of the verified gross savings (VTD) from previous program years in Phase IV where the impact evaluation is complete plus the reported gross savings from the current program year (PYTD). For PY13, the PSA savings will always equal the PYTD savings because PY13 is the first program year of the phase (no savings will be verified until the PY13 final annual report even if the approved EM&V plan calls for a historic realization rate).

**Phase IV to Date Preliminary Savings Achieved + Carryover (PSA+CO):** The sum of the verified gross savings from previous program years in Phase IV plus the reported gross savings from the current program year plus any verified gross carryover savings from Phase III of Act 129. This is the best estimate of an EDC's progress toward the Phase IV compliance targets.

## Section 1 Introduction

Pennsylvania Act 129 of 2008, signed on October 15, 2008, mandated energy savings and demand reduction goals for the largest electric distribution companies (EDCs) in Pennsylvania for Phases I (2008 through 2013), II (2013 through 2016) and III (2016 through 2021). In late 2020, each EDC filed a new energy efficiency and conservation (EE&C) plan with the PA PUC detailing the proposed design of its portfolio for Phase IV. These plans were updated based on stakeholder input and subsequently approved by the PUC in 2021.

Implementation of Phase IV of the Act 129 programs began on June 1, 2021. This report documents the progress and effectiveness of the Phase IV EE&C accomplishments in Program Year 13 (PY13) for Metropolitan Edison Company (“Met-Ed” or “ME”), Pennsylvania Electric Company (“Penelec” or “PN”), Penn Power Company (“Penn Power” or “PP”), and West Penn Power Company (“West Penn Power” or “WPP”) (known collectively as the “FirstEnergy Pennsylvania EDCs” or “FirstEnergy” or “Companies”), as well as the cumulative accomplishments of the Phase IV programs since inception. This report additionally documents the energy savings carried over from Phase III. The Phase III carryover savings count towards EDC energy efficiency savings compliance targets for Phase IV.

This report details the participation, spending, and reported gross impacts of the energy efficiency programs during the first six months of PY13. Compliance with Act 129 savings goals is ultimately based on verified gross savings. FirstEnergy has retained ADM Associates as an independent evaluation contractor for Phase IV of Act 129. ADM Associates is responsible for the measurement and verification of the savings and calculation of verified gross savings. The verified gross savings for PY13 energy efficiency programs will be reported in the final annual report, to be filed on September 30, 2022.

Phase IV of Act 129 includes a peak demand reduction goal for Met-Ed, Penelec, Penn Power, and West Penn Power. Unlike previous phases of Act 129, Phase IV peak demand reduction targets must be met through coincident demand reductions from energy efficiency measures. The Act 129 peak demand reduction definition is non-holiday weekdays from 2:00 pm to 6:00 pm in June, July, and August. As in prior phases, compliance with Act 129 peak compliance goals is assessed at the system-level so all coincident peak demand impacts are adjusted for line losses.

## Section 2 Summary of Achievements

### 2.1 CARRYOVER SAVINGS FROM PHASE III OF ACT 129

The Commission's Phase IV Implementation Order<sup>1</sup> allowed EDCs to carry over verified savings above the Phase III portfolio and low-income savings goal and apply those savings toward Phase IV compliance targets. Table 2-1 shows total MWh/year carryover savings from Phase III for each of the FirstEnergy EDCs<sup>2</sup>.

**Table 2-1: Phase III Carryover Savings**

EDC	Phase III Carryover Savings (MWh/Year)	Low-Income Phase III Carryover Savings (MWh/Year)
<b>Met-Ed</b>	147,303	9,782
<b>Penelec</b>	130,025	10,466
<b>Penn Power</b>	66,577	3,504
<b>West Penn Power</b>	168,480	8,269

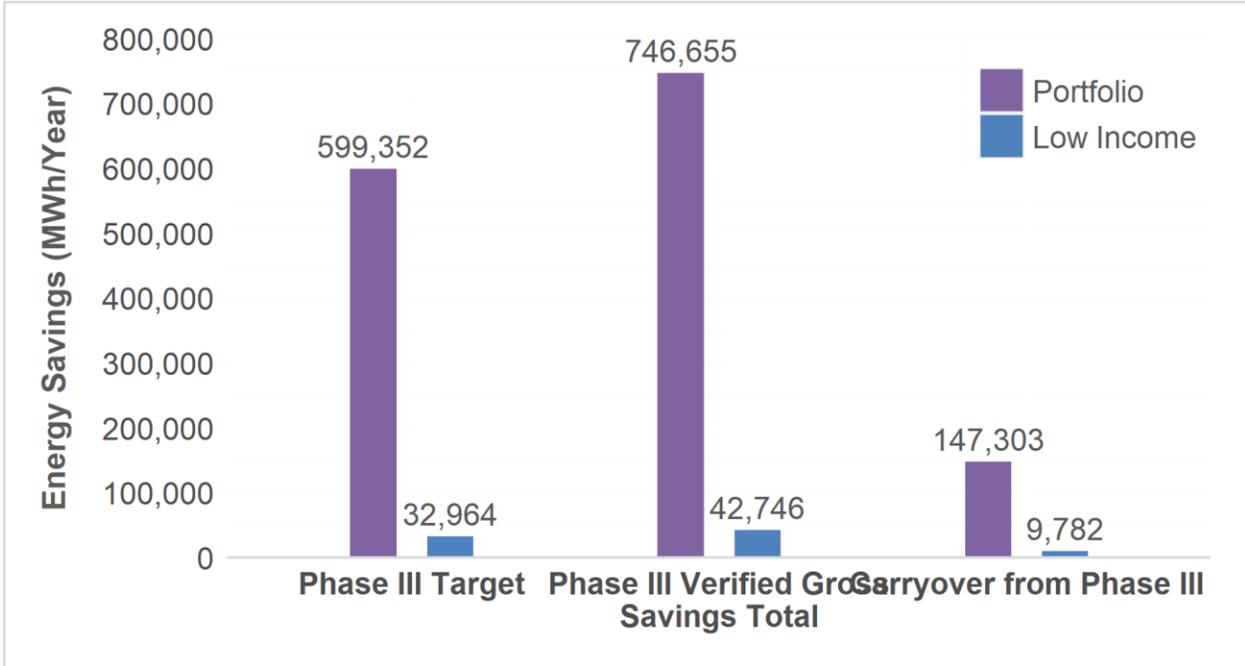
<sup>1</sup> Pennsylvania Public Utility Commission, *Energy Efficiency and Conservation Program Implementation Order*, at Docket No. M-2020-3015228, (*Phase IV Implementation Order*), entered June 18, 2020.

<sup>2</sup> The results in Table 2-1 are preliminary and the ultimate carryover values will be affirmed by PAPUC's final order on Phase III.

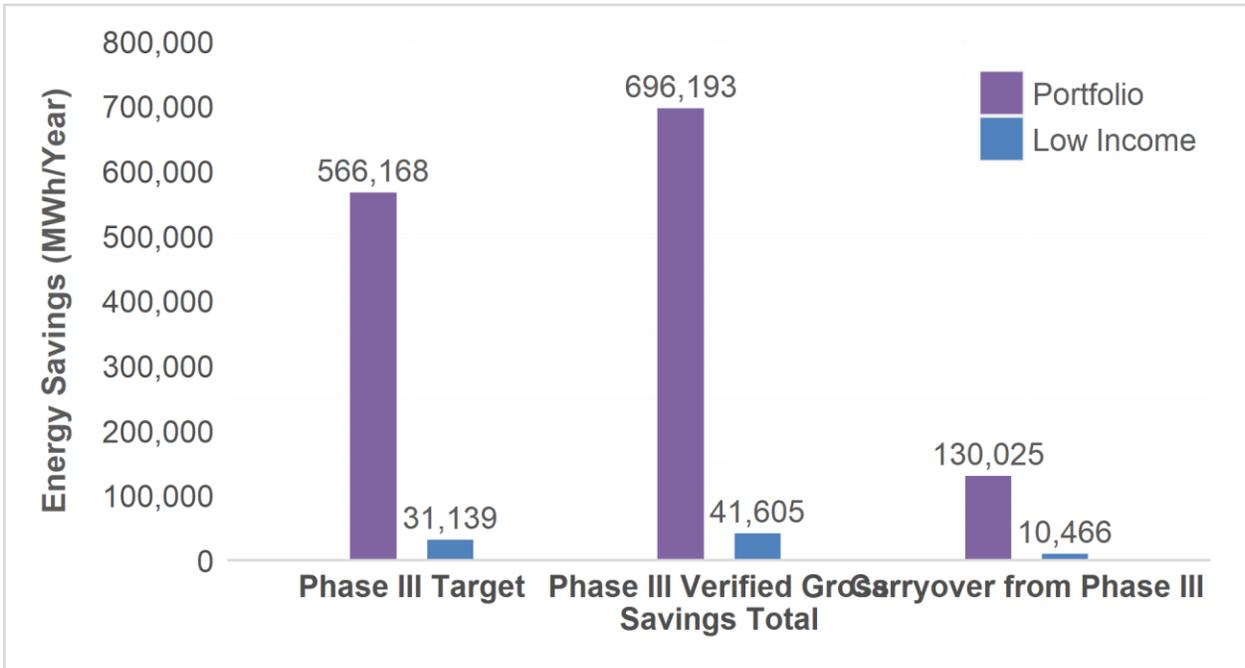
Figures 1A-1D: Carryover Savings from Phase III of Act 129 compare each of the EDC's Phase III verified gross savings total to the Phase III compliance target to illustrate the carryover calculation.

**Figures 1A-1D: Carryover Savings from Phase III of Act 129**

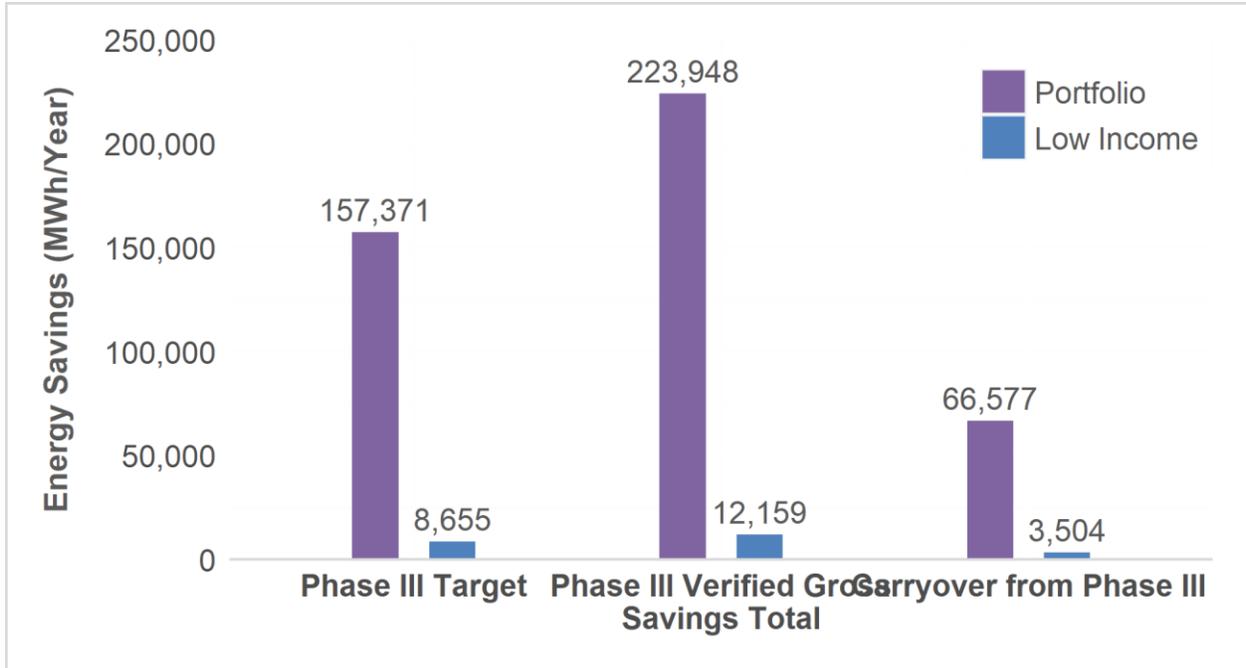
**Figure 1A: Carryover Savings from Phase III of Act 129 - Met-Ed**



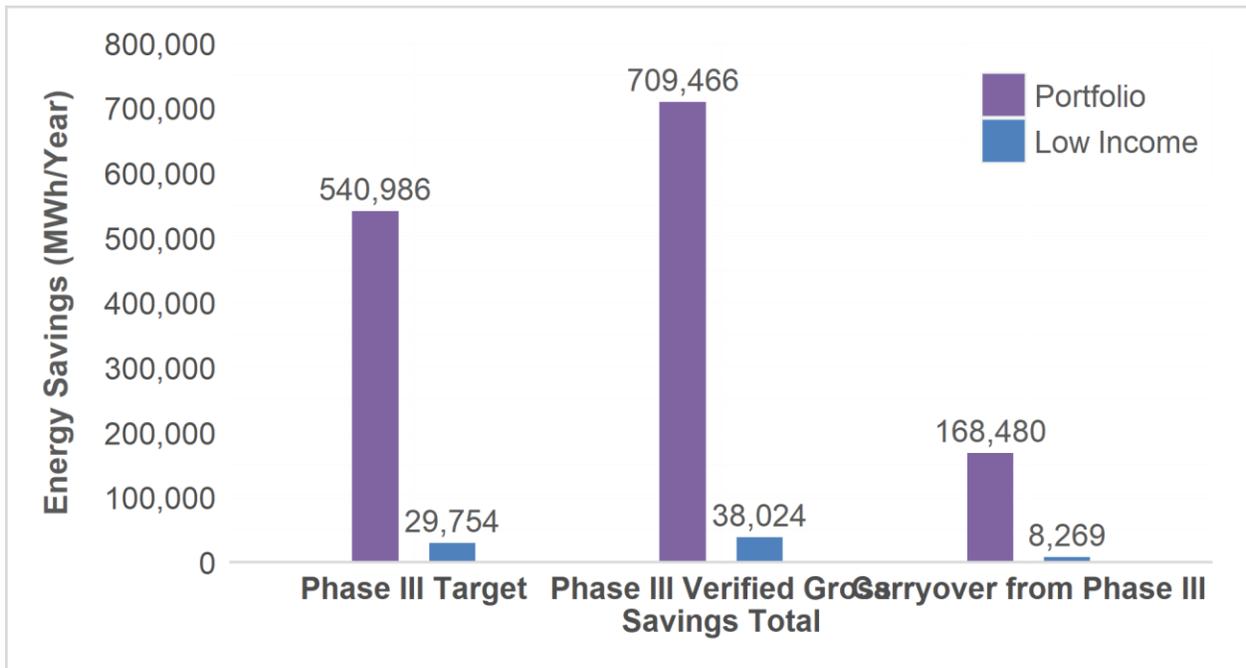
**Figure 1B: Carryover Savings from Phase III of Act 129 – Penelec**



**Figure 1C: Carryover Savings from Phase III of Act 129 – Penn Power**



**Figure 1D: Carryover Savings from Phase III of Act 129 – West Penn Power**



Phase III did not include a peak demand reduction target from energy efficiency, so there is no carryover savings toward the Phase IV peak demand reduction target.

## 2.2 PHASE IV ENERGY EFFICIENCY ACHIEVEMENTS TO DATE

Table 2-2 presents performance to date for each of the FirstEnergy EDCs since the beginning of Program Year 13 on June 1, 2021. Since the beginning of Program Year 13 on June 1, 2021, the FirstEnergy EDCs have claimed:

**Table 2-2: Gross Energy Savings and Demand Reduction for PY13**

1.

Table 2-3~~Error! Reference source not found.~~ and Table 2-4 show achievements to date in Phase IV. Since the beginning of Phase IV of Act 129 on June 1, 2021, the FirstEnergy EDCs have achieved:

**Table 2-3: Gross Energy Savings and Demand Reduction since the beginning of Phase IV of Act 129**

EDC	Reported Gross Electric Energy Savings MWh/yr Savings (RTD)	Reported Gross Peak Demand MW Savings (RTD)	Gross Electric Energy Savings MWh/yr Savings (PSA)	Gross Peak Demand MW Savings (PSA)
<b>Met-Ed</b>	7,408	1.71	7,408	1.71
<b>Penelec</b>	4,767	0.99	4,767	0.99
<b>Penn Power</b>	1,936	0.53	1,936	0.53
<b>West Penn Power</b>	7,203	1.55	7,203	1.55

Including carryover savings from Phase III, the FirstEnergy EDCs have achieved:

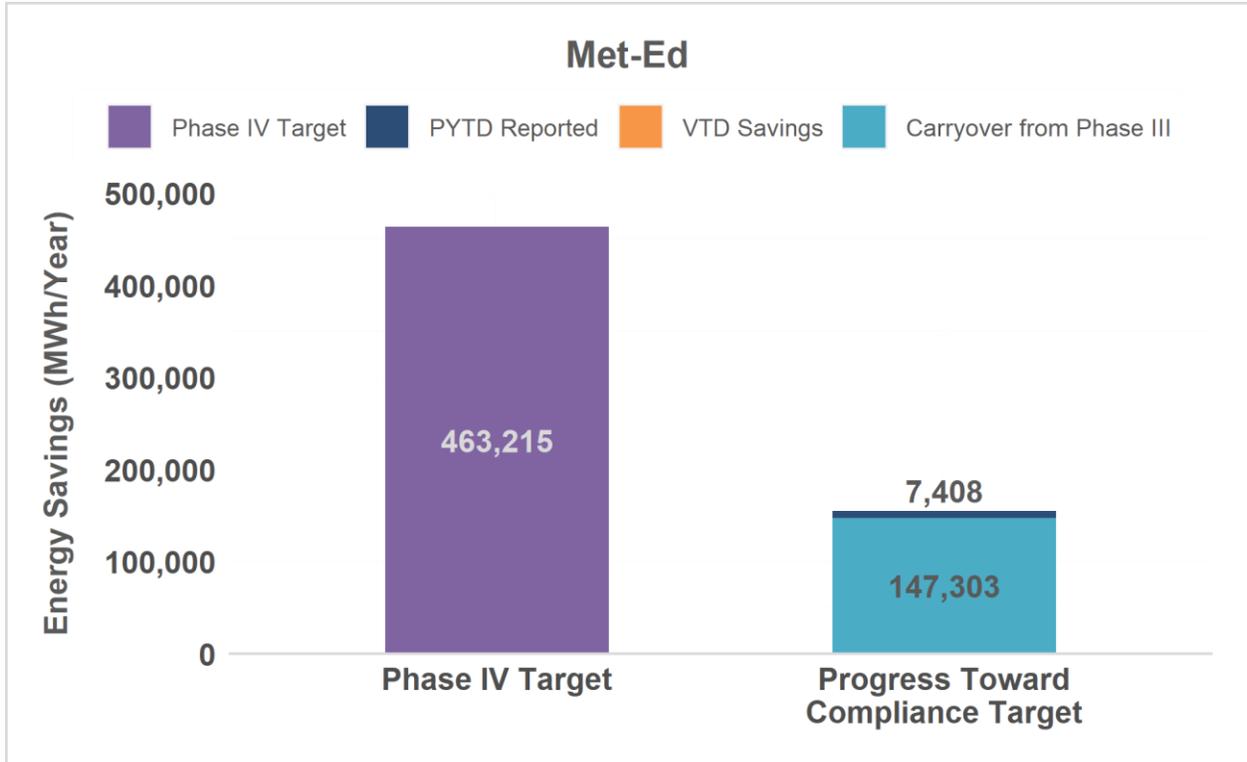
**Table 2-4: Phase IV Energy Savings including Phase III carryover**

EDC	Gross/Verified Savings (PSA)	Carryover Savings MWh/yr (CO)	CO + Gross/Verified Savings (PSA + CO)	% of Compliance Target
<b>Met-Ed</b>	7,408	147,303	154,711	33%
<b>Penelec</b>	4,767	130,025	134,792	31%
<b>Penn Power</b>	1,936	66,577	68,514	53%
<b>West Penn Power</b>	7,203	168,480	175,683	35%

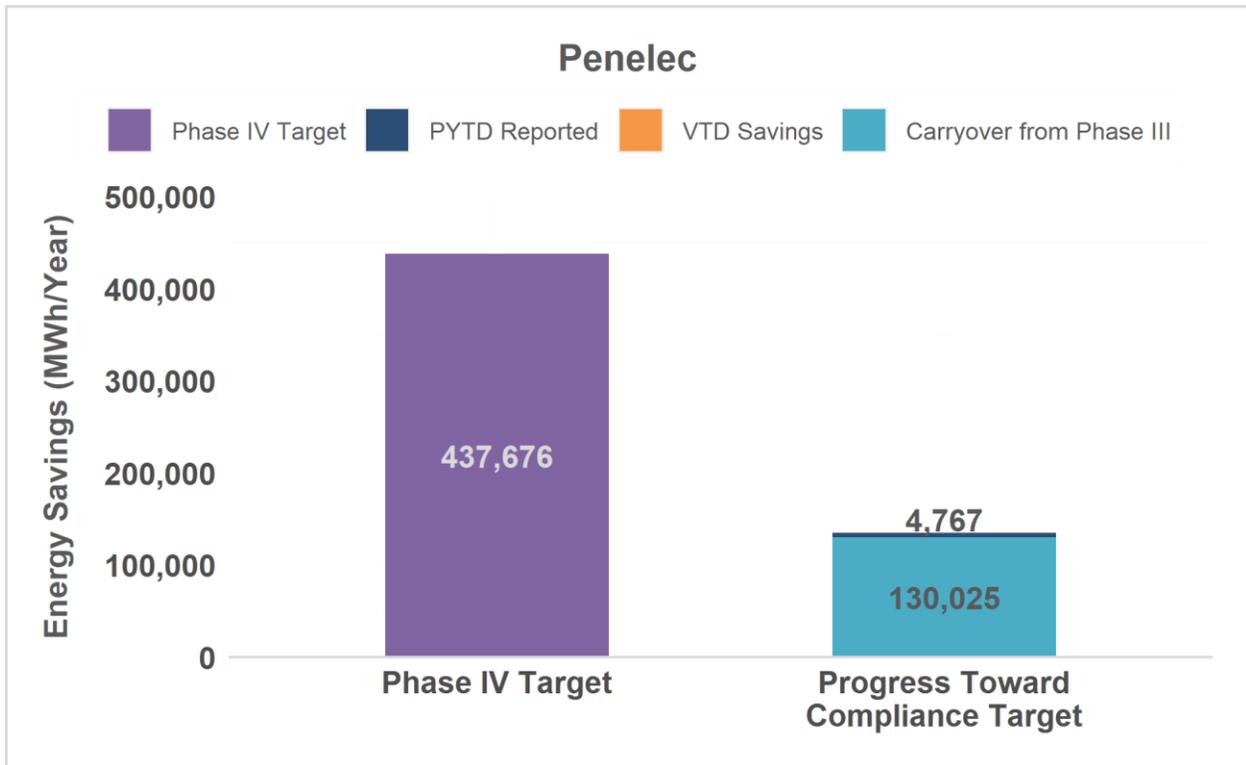
**Figures 2A-2D** and **Figures 3A-3D** show the FirstEnergy EDCs' EE&C Plan progress toward Phase IV energy savings and peak demand reduction compliance targets.

**Figures 2A-2D: Performance toward Phase IV Portfolio Energy Savings Target**

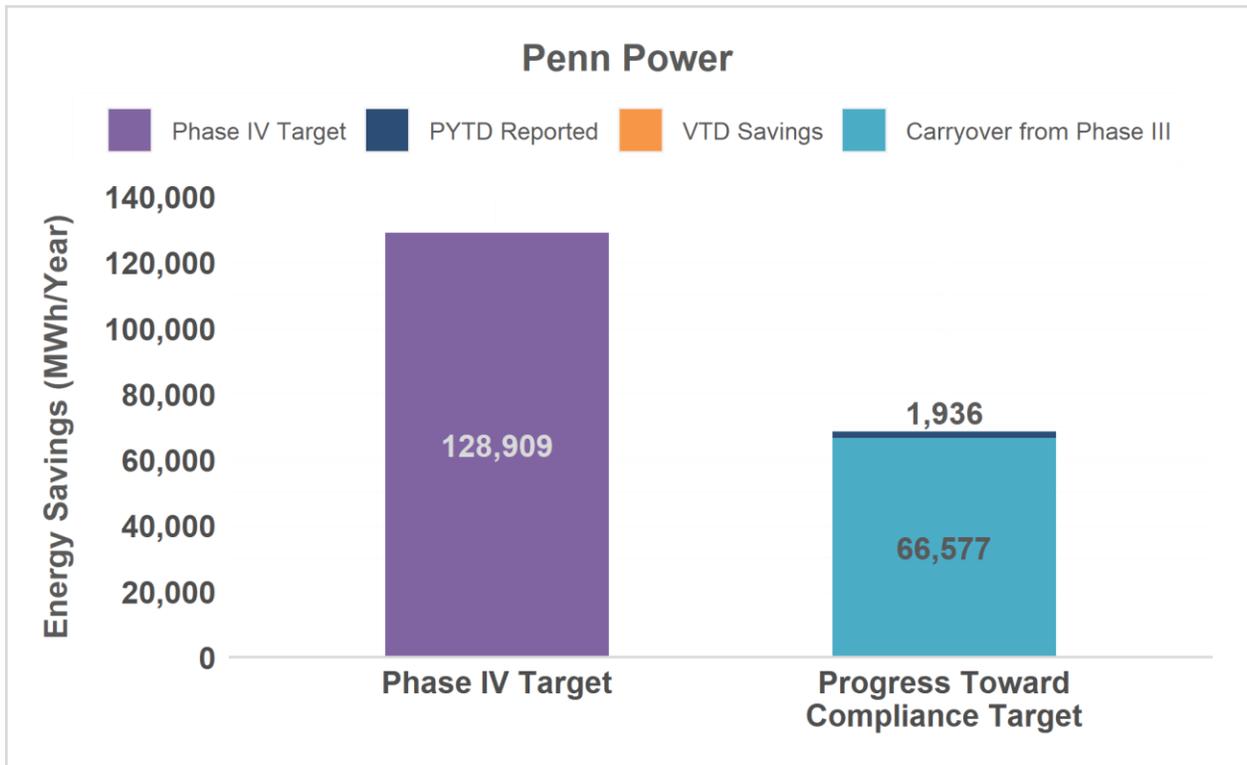
**Figure 2A: Performance toward Phase IV Portfolio Energy Savings Target – Met-Ed**



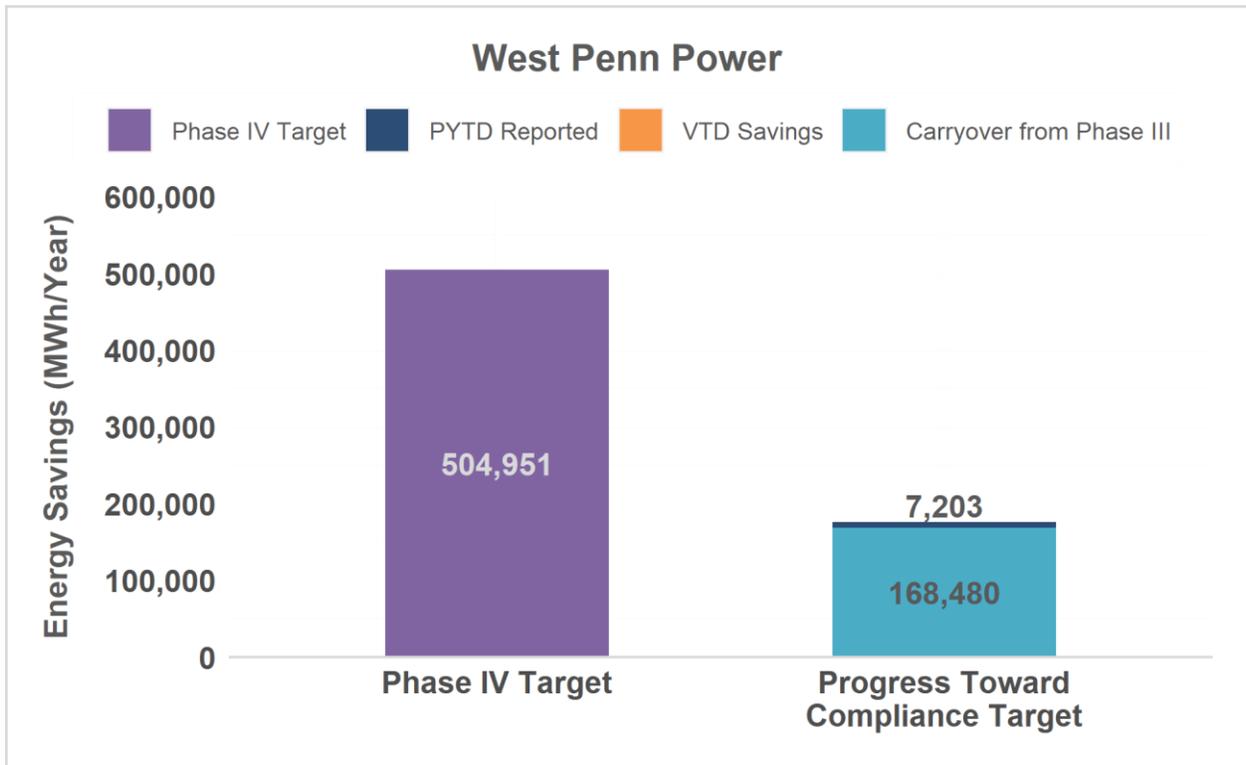
**Figure 2B: Performance toward Phase IV Portfolio Energy Savings Target – Penelec**



**Figure 2C: Performance toward Phase IV Portfolio Energy Savings Target – Penn Power**

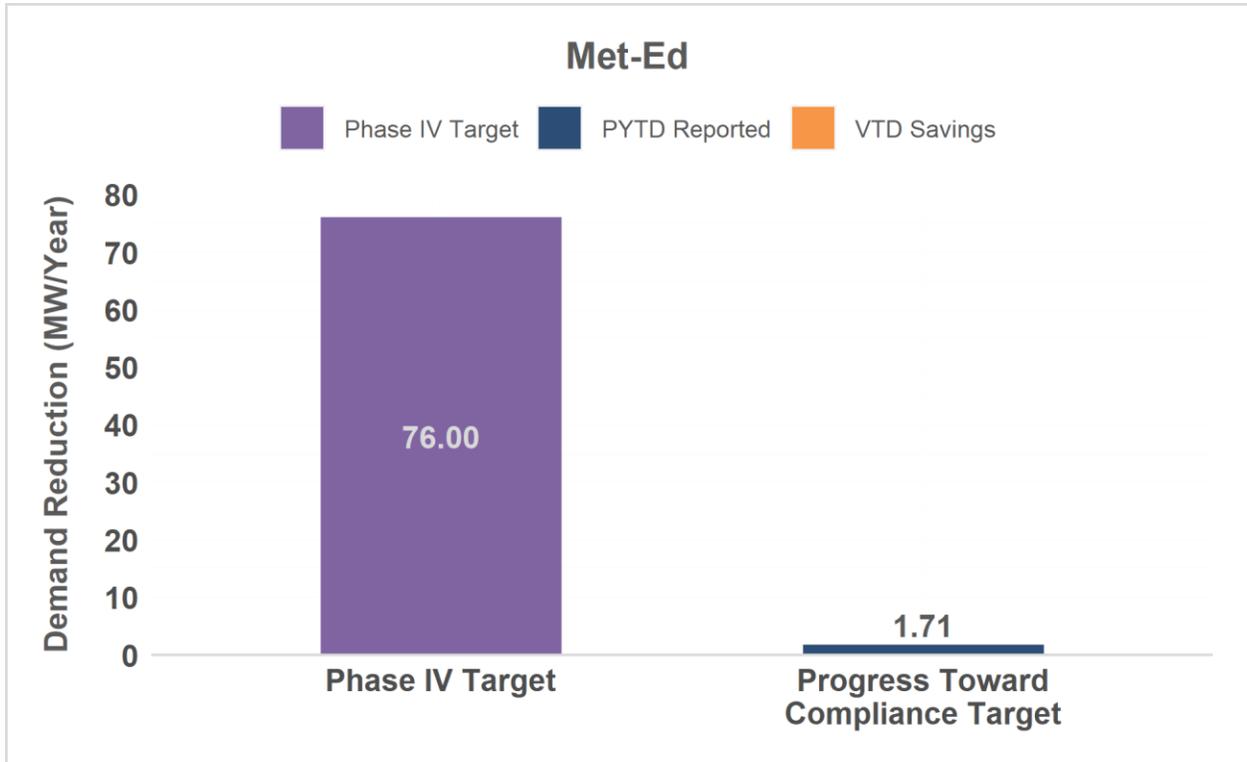


**Figure 2D: Performance toward Phase IV Portfolio Energy Savings Target – West Penn Power**

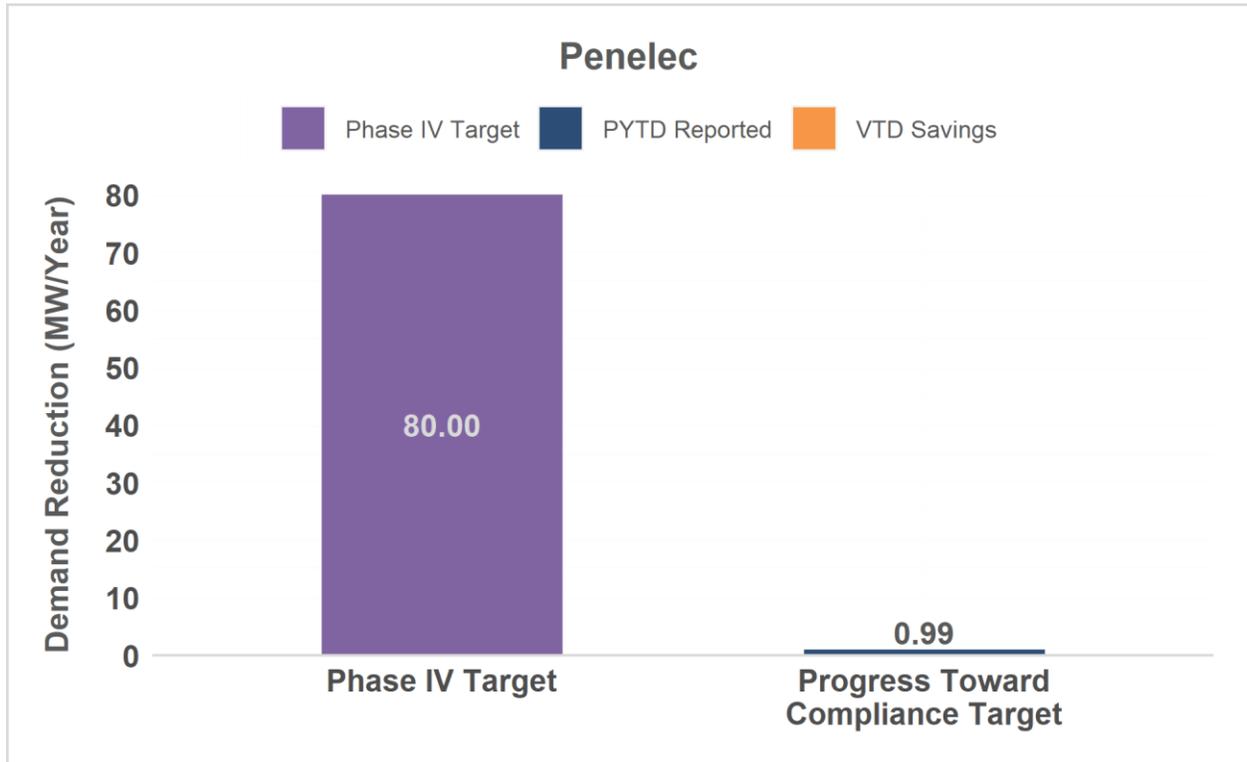


**Figures 3A-3D: Performance toward Phase IV Portfolio Peak Demand Target**

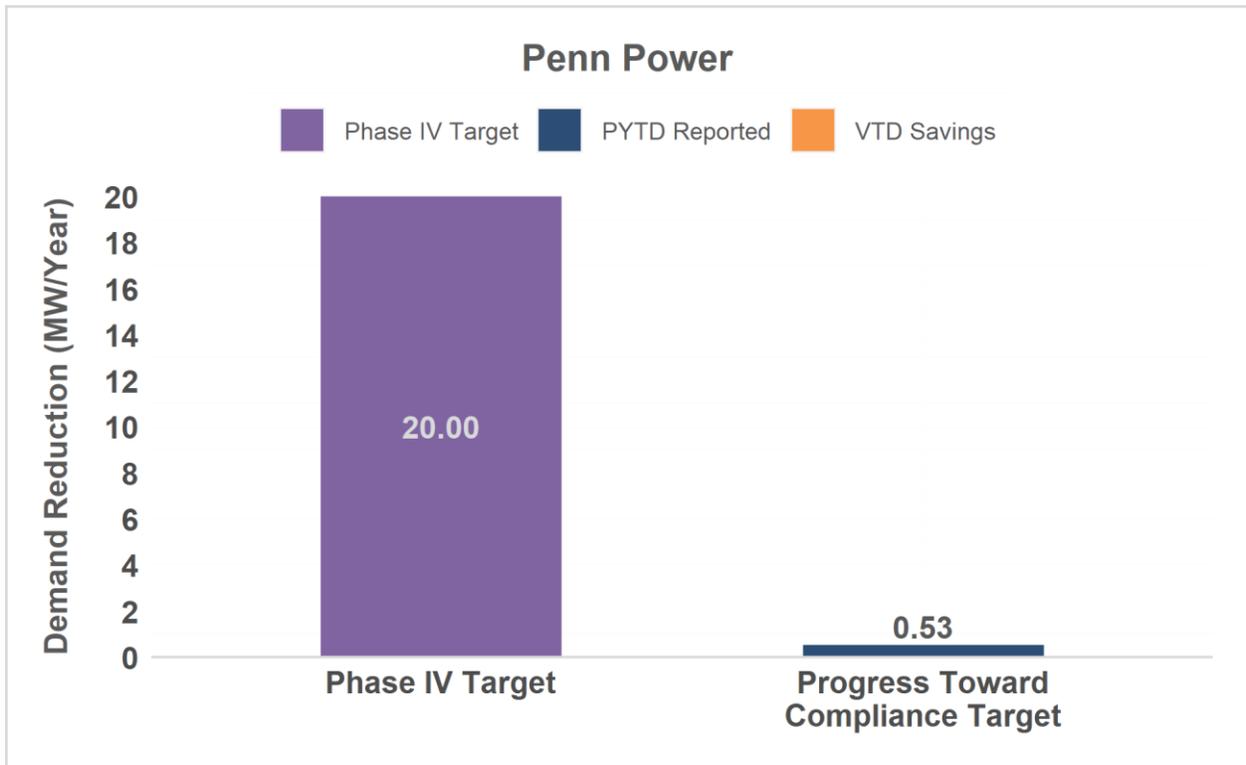
**Figure 3A: Performance toward Phase IV Portfolio Peak Demand Target – Met-Ed**



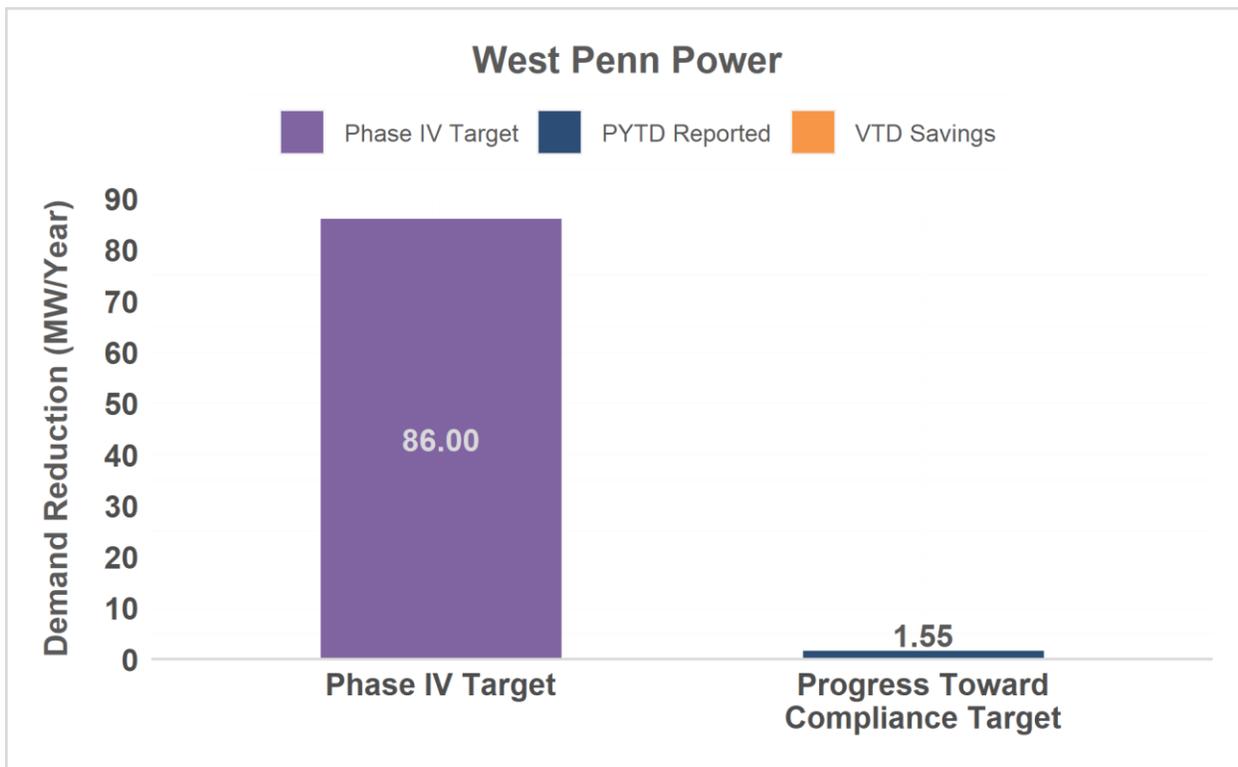
**Figure 3B: Performance toward Phase IV Portfolio Peak Demand Target – Penelec**



**Figure 3C: Performance toward Phase IV Portfolio Peak Demand Target – Penn Power**



**Figure 3D: Performance toward Phase IV Portfolio Peak Demand Target – West Penn Power**



**Reaching Low-Income Households**

The Phase IV Implementation Order directed EDCs to offer conservation measures to the low-income customer segment based on the proportion of electric sales attributable to low-income households. The proportionate number of measures target for each FirstEnergy EDC is 8.79% for Met-Ed, 10.23% for Penelec, 10.64% for Penn Power and 8.79% for West Penn Power. Each FirstEnergy EDC offers a total of 126 distinct EE&C measures to its residential and non-residential customer classes. There are 31 measures available to each of the FirstEnergy EDC low-income customer segments at no cost to the customer. This represents 22.80% of the total measures offered in the EE&C plan and exceeds the proportionate number of measures target for each of the EDCs.

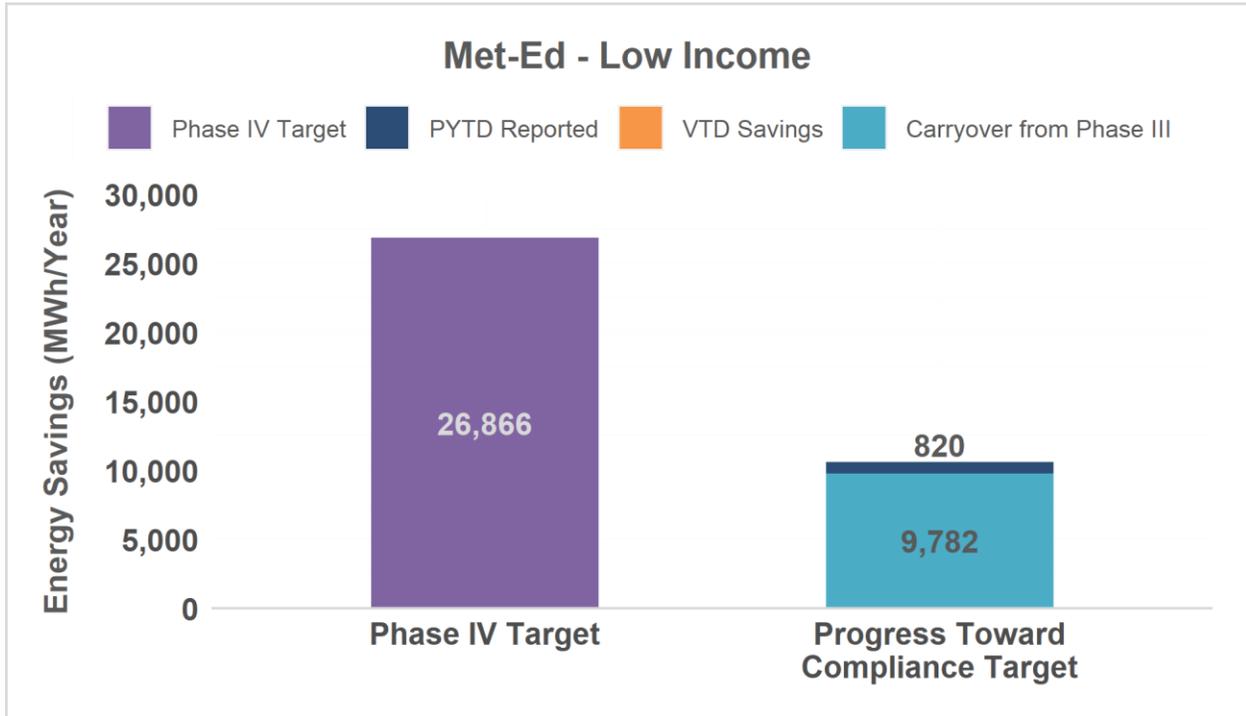
The PA PUC also established a low-income energy savings target of 5.8% of the portfolio savings goal. The low-income savings target for the FirstEnergy EDCs is presented in Table 2-5 and is based on verified gross savings. Figures 4A-4D compare the PSA+CO performance to date for the low-income customer segments to the Phase IV savings targets. Based on the latest available information, Table 2-5 presents the percent achievement of each EDC’s Phase IV low-income energy savings target.

**Table 2-5: Low-Income Program Energy Savings and Targets**

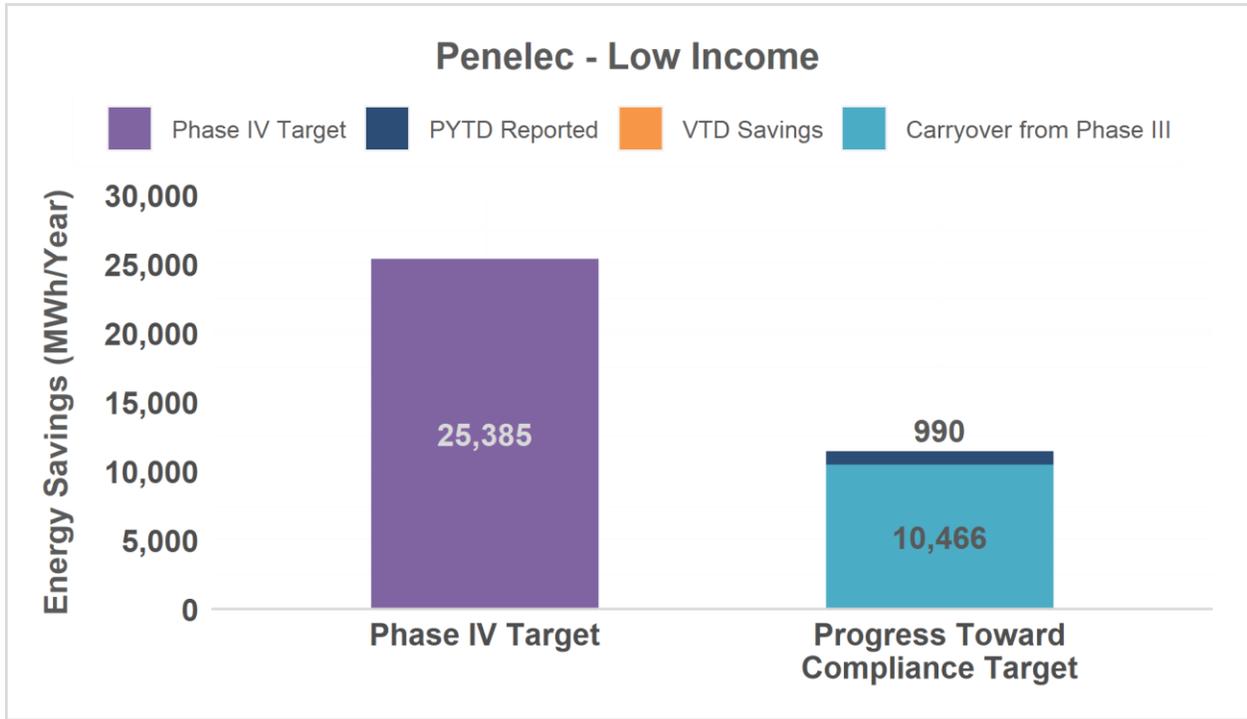
EDC	Low-Income Target (MWh/yr)	PSA + CO (MWh/yr)	% of Low-Income Savings Target Achieved
<b>Met-Ed</b>	26,866	10,602	39%
<b>Penelec</b>	25,385	11,455	45%
<b>Penn Power</b>	7,477	3,753	50%
<b>West Penn Power</b>	29,287	9,160	31%

**Figures 4A-4D: EE&C Plan Performance Toward Phase IV Low-Income Compliance Target**

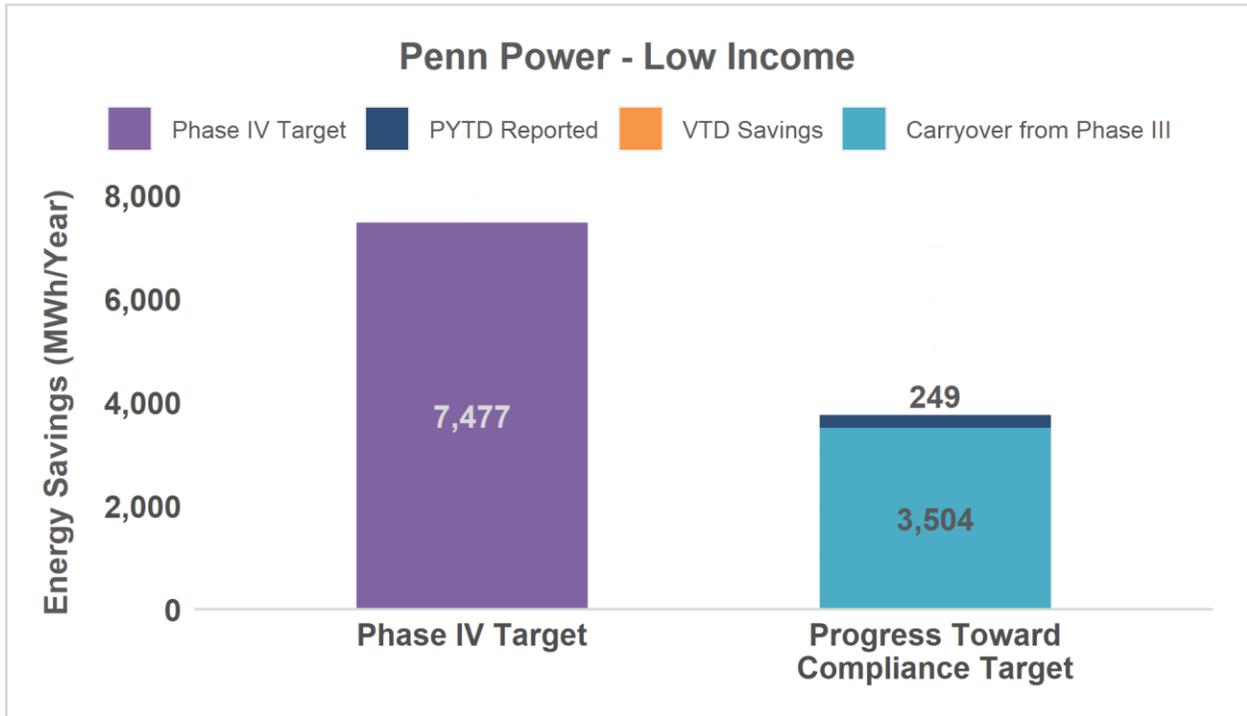
**Figure 4A: EE&C Plan Performance Toward Phase IV Low-Income Compliance Target – Met-Ed**



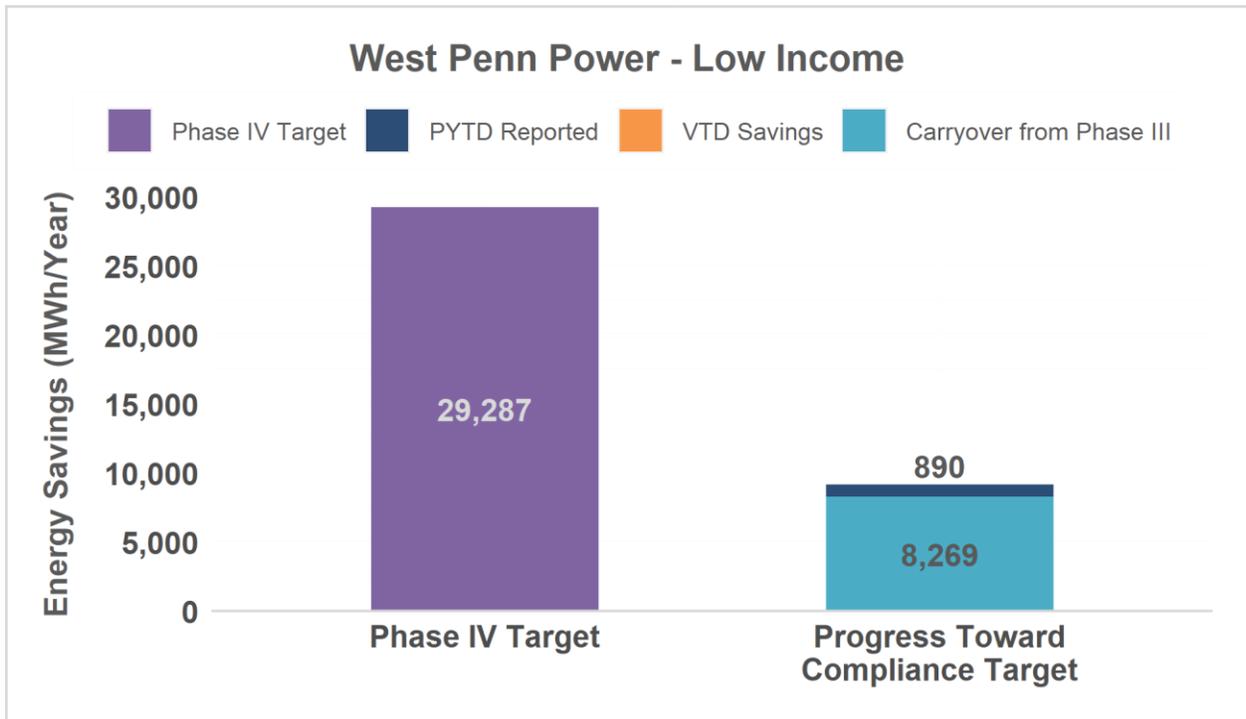
**Figure 4B: EE&C Plan Performance Toward Phase IV Low-Income Compliance Target – Penelec**



**Figure 4C: EE&C Plan Performance Toward Phase IV Low-Income Compliance Target – Penn Power**



**Figure 4D: EE&C Plan Performance Toward Phase IV Low-Income Compliance Target – West Penn Power**



**2.4 PHASE IV PERFORMANCE BY CUSTOMER SEGMENT**

Table 2-6 presents the participation, savings, and spending by customer sector for PY13. The residential, small C&I, large C&I sectors are defined by EDC tariff and the residential low-income and governmental/educational/non-profit sector were defined by statute (66 Pa. C.S. § 2806.1). The residential low-income segment is a subset of the residential customer class and the GNI segment will include customers who are part of the Small C&I or Large C&I rate classes. The savings, spending, and participation values for the LI and GNI segments have been removed from the parent sectors in Table 2-6.

**Table 2-6: PY13 Summary Statistics by Customer Segment**

EDC	Parameter	Residential (Non-LI)	Residential LI	Small C&I (Non-GNI)	Large C&I (Non-GNI)	GNI
Met-Ed	# participants	49,521	14,092	29	0	0
	PYRTD MWh/yr	6,554	820	34	0	0
	PYRTD MW/yr	1.6	0.1	0.0	0.0	0.0
	Incentives (\$1000)	\$840.13	\$81.86	\$2.50	\$0.58	\$0.00
Penelec	# participants	30,584	14,101	34	0	0
	PYRTD MWh/yr	3,447	990	330	0	0
	PYRTD MW/yr	0.8	0.1	0.0	0.0	0.0
	Incentives (\$1000)	\$394.17	\$151.15	\$207.78	\$0.20	\$0.00
Penn Power	# participants	23,323	7,254	6	0	0
	PYRTD MWh/yr	1,605	249	82	0	0
	PYRTD MW/yr	0.5	0.0	0.0	0.0	0.0
	Incentives (\$1000)	\$258.59	\$41.81	\$35.87	\$0.00	\$0.00
West Penn Power	# participants	56,833	10,962	40	1	0
	PYRTD MWh/yr	5,048	890	1,264	1	0
	PYRTD MW/yr	1.3	0.1	0.2	0.0	0.0
	Incentives (\$1000)	\$675.34	\$69.39	\$846.57	\$0.25	\$0.00

Table 2-7 summarizes plan performance by sector since the beginning of Phase IV.

**Table 2-7: Phase IV Summary Statistics by Customer Segment**

EDC	Parameter	Residential (Non-LI)	Residential LI	Small C&I (Non-GNI)	Large C&I (Non-GNI)	GNI
Met-Ed	# participants	49,521	14,092	29	0	0
	PSA MWh/yr	6,554	820	34	0	0
	PSA MW	1.6	0.1	0.0	0.0	0.0
	Incentives (\$1000)	\$840.13	\$81.86	\$2.50	\$0.58	\$0.00
Penelec	# participants	30,584	14,101	34	0	0
	PSA MWh/yr	3,447	990	330	0	0
	PSA MW	0.8	0.1	0.0	0.0	0.0
	Incentives (\$1000)	\$394.17	\$151.15	\$207.78	\$0.20	\$0.00
Penn Power	# participants	23,323	7,254	6	0	0
	PSA MWh/yr	1,605	249	82	0	0
	PSA MW	0.5	0.0	0.0	0.0	0.0
	Incentives (\$1000)	\$258.59	\$41.81	\$35.87	\$0.00	\$0.00
West Penn Power	# participants	56,833	10,962	40	1	0
	PSA MWh/yr	5,048	890	1,264	1	0
	PSA MW	1.3	0.1	0.2	0.0	0.0
	Incentives (\$1000)	\$675.34	\$69.39	\$846.57	\$0.25	\$0.00

## Section 3 Updates and Findings

### 3.1 IMPLEMENTATION UPDATES AND FINDINGS

Implementation updates and findings through the first half of PY13 are as follows:

#### Energy Efficient Products Program

- **Appliance Recycling:** This subprogram is implemented by ARCA Inc. and is fully operational for Phase IV. The Companies offered an increased incentive to customers scheduling an eligible appliance to be recycled between September 1 and November 30<sup>th</sup>. During the promotional period, customers received \$75 for a refrigerator or freezer recycled (increased from \$50) and \$50 for a dehumidifier or room air conditioner recycled (increased from \$25). The Appliance Recycling subprogram has been marketed through a variety of avenues including bill inserts, e-mail, direct mail campaigns, internet searches, and through the Behavioral Home Energy Reports Program. Franklin Energy also cross-promotes this program while educating retailers about the Appliance Rebates program. This program continues to offer customers the option of an outside only, no contact pickup process which adheres to proper social distancing practices.
- **Appliances:** This subprogram is implemented by Franklin Energy and is fully operational for Phase IV. The first part of the program year focused on launch of the subprogram including start-up activities, website development and design and roll-out of customer focused rebate applications and marketing. Field work, store visits, training and outreach events continued in accordance with COVID-19 government safety mandates.
- **HVAC:** This subprogram is implemented by Franklin Energy. This subprogram is implemented by Franklin Energy and is fully operational for Phase IV. The first half of the program year focused on launch of the subprogram included start-up activities, website development, creation of rebate applications, and development of a HVAC contractor online portal along with trade ally engagement and training.

#### Energy Efficient Homes Program

- **Behavioral:** Oracle has been retained as the program implementer for Phase IV. The program launched in October with paper reports to customers including content and messaging welcoming customers to the Phase IV program. The November reports included winter themed tips and messaging and also marketed the Appliance Recycling program incentive promotion.
- **Comprehensive Audit:** This subprogram implemented by CLEARResult is in the final stages of launch, with marketing channels in place and audits being scheduled with customers. Progress for this program should start at the end of 2021. CLEARResult held a kickoff training for trade allies in September 2021.

- **New Homes:** The New Homes subprogram continued with the vendor Performance Systems Development (PSD), across all four PA EDCs. The program is fully operational for Phase IV and PSD continues outreach to re-enroll builders and raters in the program for the current phase.
- **School Kits:** This subprogram is currently in the contracting phase and will begin in early 2022.
- **Energy Efficiency Kits:** The Kits subprogram is currently in the contracting phase and will begin in early 2022.
- **Online Audit:** The software tool, referred to as the Home Energy Analyzer, is available on the Companies' website. Customers enter information about their home into the Analyzer and receive tips on how to save energy. Some of the tips direct customers to other Energy Efficiency programs. There is also a graph that displays where most of the energy use in the home occurs.

#### **Low Income Energy Efficiency Program:**

- **Appliance Rebate:** This subprogram is implemented by Franklin Energy and is fully operational for Phase IV. The first part of the program year focused on launch of the subprogram including start-up activities, website development and design and roll-out of customer focused rebate applications and marketing. Field work, store visits, training and outreach events continued in accordance with COVID-19 government safety mandates.
- **New Homes:** This subprogram is implemented by Performance Systems Development (PSD), across all four PA EDCs. Raters have submitted low-income projects for Met Ed and Penelec in the first half of PY13 program year.
- **School Kits:** This subprogram is currently in the contracting phase and will begin in early 2022.
- **Weatherization:** This subprogram implemented by CLEARResult is progressing well through the first half of PY13. Subcontractors who previously worked on the Program attended a kickoff training with CLEARResult in October 2021. Act 129 WARM Plus and Extra Measures Programs held annual meetings with subcontractors and inspectors on November 03, 2021, and November 10, 2021, to communicate the following:
  - General reminders for all Act 129 Programs
  - Updated information for EISA lighting calculations
  - Ventilation requirements
- **Residential and SCI Multifamily:** This subprogram is implemented by CLEARResult who held a kickoff training for trade allies in October 2021. FirstEnergy met with the PA Housing Alliance for a Multifamily Stakeholder meeting on September 14, 2021. Act 129 Programs held annual meetings with subcontractors and inspectors on November 03, 2021, and November 10, 2021, to communicate the following:
  - General reminders for all Act 129 Programs
  - Updated information for EISA lighting calculations
  - Ventilation requirements

- **Appliance Recycling:** Customers identified as low-income receive an enhanced incentive when recycling a refrigerator, freezer, room air conditioner, or dehumidifier. The low-income portion of this program is marketed primarily through e-mails and direct mail. Customers are asked questions at enrollment to identify additional low-income customers. The Companies offered an increased incentive to customers scheduling an eligible appliance to be recycled between September 1 and November 30th. During the promotional period, low-income customers received \$100 for a refrigerator or freezer recycled (increased from \$75) and \$75 for a dehumidifier or room air conditioner recycled (increased from \$35). This program continues to offer customers the option of an outside only, no contact pickup process which adheres to proper social distancing practices.
- **Behavioral:** Oracle has been retained as the program implementer for the Phase IV LI Behavioral subprogram. Customers identified as low-income receive Home Energy Reports with low or no cost tips to educate customers on how to use less energy. The program for Phase IV launched in October.
- **Energy Efficiency Kits:** The Kits subprogram is currently in the contracting phase and will begin in early 2022.

### **Residential, LCI and SCI Multifamily – Market-Rate Rebate Programs**

These subprograms are implemented by CLEAResult and are in the final stages of launch. Marketing channels are in place and audits are currently being scheduled with Building Owners and Customers. The Companies expect this program to contribute results in the second half of Plan Year 13.

### **C/I Efficient Solutions for Business – Small**

The Companies have introduced two new Conservation Service Provider (CSP), Franklin Energy and Willdan, to customers and program allies through a series of e-Blast at the start of Phase IV. The new CSPs have implemented the following changes:

- Updated the program website – added Google analytics to track on-site performance and engagement
- Launched a new online application portal
- The CSPs also hosted online portal training webinars that were targeted at customers and programs allies.

To support the outreach effort, the Companies leverage their internal resources – Customer Support, National Accounts, Economic Development, Area Managers, and Energy Efficiency Staff – to work with and support the new CSPs in promoting Act 129 portfolio of programs to assigned accounts or contacts.

- **Prescriptive and Custom Sub-Programs:** This subprogram is implemented by Franklin Energy and is fully operational for Phase IV.
- **Retro-commissioning , Building Tune-Up and Commercial New Construction Sub-Programs :** These subprograms are implemented by Willdan and are fully operational for Phase IV.

### **C/I Efficient Solutions for Business – Large**

The Companies have introduced two new Conservation Service Provider (CSP), Franklin Energy and Willdan, to customers and program allies through a series of e-Blast at the start of Phase IV. The new CSPs have implemented the following changes:

- Updated the program website – added Google analytics to track on-site performance and engagement
- Launched a new online application portal
- The CSPs also hosted online portal training webinars that were targeted at customers and programs allies.

To support the outreach effort, the Companies leverage their internal resources – Customer Support, National Accounts, Economic Development, Area Managers, and Energy Efficiency Staff – to work with and support the new CSPs in promoting Act 129 portfolio of programs to assigned accounts or contacts.

- **Prescriptive and Custom Sub-Programs:** This subprogram is implemented by Franklin Energy and is fully operational for Phase IV.
- **Retro-commissioning , Building Tune-Up and Commercial New Construction Sub-Programs :** These subprograms are implemented by Willdan and are fully operational for Phase IV.

## 3.2 EVALUATION UPDATES AND FINDINGS

Evaluation updates and findings through the first half of PY13 are as follows:

- **Portfolio level:** ADM continually reviews the Companies' Tracking and Reporting (T&R) database and collaborates with Companies' staff and the T&R vendor, AEG, to investigate values that are flagged for review in an automated QA/QC process. In Q1 of PY13, ADM and FirstEnergy reviewed and revised automated QA/QC parameters in FirstEnergy's tracking and reporting system to reflect M&V findings from PY12 and TRM updates for PY13. The ADM team submitted draft and final versions of the PY13 Evaluation Plan to the SWE team. The SWE approved the Evaluation Plan on December 16, 2021.
- **Energy Efficient Products Program:** ADM is reviewing invoices and applications to support our desk review process in PY13. ADM is also preparing survey instruments for gross impact evaluation. The survey effort will launch in early 2022. The ADM team developed a draft interim measure protocol (IMP) for mini-fridge and freezer recycling. The SWE team finalized and issued this IMP on December 15, 2021. Tetra Tech conducted preliminary interviews with FirstEnergy's Energy Efficiency Products Program managers in November 2021. The interviews focused on Phase IV program design and implementation strategies. Tetra Tech also began program implementer Interviews in December 2021.
- **Energy Efficient Homes Program:** The ADM team has worked with the FirstEnergy implementation team to establish data collection and reporting procedures for Phase IV. The gross impact evaluation effort will launch in early 2022. Tetra Tech conducted preliminary interviews with FirstEnergy's Energy Efficient Homes Program managers in November and December 2021. The interviews focused on Phase IV program design and implementation strategies. Tetra Tech will schedule interviews with program implementers once the manager interviews are concluded.
- **Low-Income Energy Efficiency Program:** The ADM team has worked with the FirstEnergy implementation team to establish data collection and reporting procedures for Phase IV. The gross impact evaluation effort will launch in early 2022. Tetra Tech will conduct preliminary interviews with FirstEnergy's Low-Income Energy Efficiency Program managers in early 2022. The interviews will focus on Phase IV program design and implementation strategies. Once the manager interviews are concluded Tetra Tech will schedule interviews with program implementers.
- **C&I Energy Solutions for Business – Small and C&I Energy Solutions for Business – Large.** The ADM team has worked with the FirstEnergy implementation team to establish data collection and reporting procedures for Phase IV. ADM is in various states of evaluation for several large energy efficiency projects that are expected to complete in PY13. ADM pulled a preliminary sample for the Multifamily program component in December 2021. Sampling for general prescriptive and custom projects will start in January 2022. ADM has developed and submitted to the SWE draft IMPs for HVAC tune-ups, Advanced Rooftop Controls, Smart Thermostats, and Demand Control Ventilation. Tetra Tech and ADM attend biweekly meetings with the implementation

team to review the project pipeline, to discuss large projects, and to coordinate evaluation efforts. Tetra Tech conducted preliminary interviews with FirstEnergy’s C&I Energy Efficiency Program managers in November 2021. The interviews focused on Phase IV program design and implementation strategies. Tetra Tech will also conduct interviews with program implementers.

## Section 4 Summary of Participation by Program

Participation is defined differently for certain programs depending on the program delivery channel and data tracking practices. The nuances of the participant definition vary by program, and within elements of a given program. The Phase IV participation counting logic is summarized by program in the bullets below, and Table 4-1A through Table 4-1D provides the current participation totals for PY13 and Phase IV.

- **Energy Efficient Homes Program**
  - **School Kits:** the number of energy savings kits delivered to students' homes.
  - **Energy Efficiency Kits:** the number of energy savings kits delivered to customer homes.
  - **Energy Audits:** the count of customers who have had an energy audit with direct install measures installed.
  - **Behavioral:** the number of customers currently receiving energy usage reports and the number of customers that participated in the new Online Audit program component. P4TD participation numbers reflect the total number of customers that participated in the program since the beginning of Phase IV.
  - **New Homes:** the count of new energy efficient homes being built with EnergyStar standards or higher efficiency level than the current building code.
  
- **Energy Efficient Products Program**
  - **Appliance Turn-In:** the count of customer recycling pick-up incidents. If a homeowner recycles multiple appliances at one pick-up event, it is recorded as a single participant.
  - **Appliances and Electronics:** the count of appliances sold.
  - **HVAC:** the number of HVAC units or programmable thermostats that are purchased and installed. If a customer purchases and installs both units at the same time they are counted as one participant.
  
- **Low Income Energy Efficiency Program**
  - **Energy Efficiency Kits:** the number of energy savings kits delivered to customers' homes.
  - **Weatherization:** the number of customers receiving energy saving measures.
  - **Multifamily:** the number of customers receiving energy saving measures.
  - **Behavioral:** the number of customers currently receiving energy usage reports. P4TD participation numbers reflect the total number of customers that participated in the program since the beginning of Phase IV.
  - **New Homes:** the count of new energy efficient homes being built with EnergyStar standards or higher efficiency level than the current building code.
  - **Appliances and Electronics:** the count of appliances sold.

- **Appliance Turn In:** the count of customer recycling pick-up incidents. If a homeowner recycles multiple appliances at one pick-up event, it is recorded as a single participant.
- **School Kits:** the number of energy savings kits delivered to students' homes.
  
- **C&I Energy Solutions for Business Program – Small:** The count of completed project applications.
  
- **C&I Energy Solutions for Business Program – Large:** The count of completed project applications.

**Table 4-1A to 4-1D: EE&C Plan Participation by Program Component**  
**Table 4-1A: EE&C Plan Participation by Program Component – Met-Ed**

Program	Component	PYTD Participation	P4TD Participation
Energy Efficient Homes	Behavioral	37,288	37,288
Energy Efficient Homes	Comprehensive Audits	0	0
Energy Efficient Homes	EE Kits	0	0
Energy Efficient Homes	Multi Family - Res	0	0
Energy Efficient Homes	New Homes	509	509
Energy Efficient Homes	Quick Home Energy Checkup (QHEC)	0	0
Energy Efficient Homes	School Education	0	0
Energy Efficient Homes	Smart Home	0	0
Energy Efficient Products	Appliance Rebate	8,812	8,812
Energy Efficient Products	Appliance Recycling	2,548	2,548
Energy Efficient Products	Consumer Electronics	0	0
Energy Efficient Products	HVAC	364	364
Energy Efficient Products	Lighting	0	0
Energy Efficient Products	Online Marketplace	0	0
Low Income Energy Efficiency	LI - Appliances	362	362
Low Income Energy Efficiency	LI - Behavioral	13,307	13,307
Low Income Energy Efficiency	LI - EE Kits	0	0
Low Income Energy Efficiency	LI - Multifamily - Res	0	0
Low Income Energy Efficiency	LI - New Homes	11	11
Low Income Energy Efficiency	LI - School Education	0	0
Low Income Energy Efficiency	Weatherization	412	412
C&I Energy Solutions for Business - Small	Custom - SCI	0	0
C&I Energy Solutions for Business - Small	Direct Install - SCI	0	0
C&I Energy Solutions for Business - Small	Energy Management - SCI	0	0
C&I Energy Solutions for Business - Small	Multi Family - SCI	0	0
C&I Energy Solutions for Business - Small	Online Marketplace - SCI	0	0
C&I Energy Solutions for Business - Small	Prescriptive - SCI	0	0
C&I Energy Solutions for Business - Small	Prescriptive Other - SCI	29	29
C&I Energy Solutions for Business - Small	Street Lighting	0	0
C&I Energy Solutions for Business - Large	Custom - LCI	0	0
C&I Energy Solutions for Business - Large	Energy Management - LCI	0	0
C&I Energy Solutions for Business - Large	Multi Family - LCI	0	0
C&I Energy Solutions for Business - Large	Online Marketplace - LCI	0	0
C&I Energy Solutions for Business - Large	Prescriptive - LCI	0	0
C&I Energy Solutions for Business - Large	Prescriptive Other - LCI	0	0
<b>Portfolio Total</b>		<b>63,642</b>	<b>63,642</b>

**Table 4-1B: EE&C Plan Participation by Program Component – Penelec**

Program	Component	PYTD Participation	P4TD Participation
Energy Efficient Homes	Behavioral	21,554	21,554
Energy Efficient Homes	Comprehensive Audits	0	0
Energy Efficient Homes	EE Kits	0	0
Energy Efficient Homes	Multi Family - Res	0	0
Energy Efficient Homes	New Homes	77	77
Energy Efficient Homes	Quick Home Energy Checkup (QHEC)	0	0
Energy Efficient Homes	School Education	0	0
Energy Efficient Homes	Smart Home	0	0
Energy Efficient Products	Appliance Rebate	7,156	7,156
Energy Efficient Products	Appliance Recycling	1,647	1,647
Energy Efficient Products	Consumer Electronics	0	0
Energy Efficient Products	HVAC	150	150
Energy Efficient Products	Lighting	0	0
Energy Efficient Products	Online Marketplace	0	0
Low Income Energy Efficiency	LI - Appliances	353	353
Low Income Energy Efficiency	LI - Behavioral	12,854	12,854
Low Income Energy Efficiency	LI - EE Kits	0	0
Low Income Energy Efficiency	LI - Multifamily - Res	110	110
Low Income Energy Efficiency	LI - New Homes	3	3
Low Income Energy Efficiency	LI - School Education	0	0
Low Income Energy Efficiency	Weatherization	781	781
C&I Energy Solutions for Business - Small	Custom - SCI	0	0
C&I Energy Solutions for Business - Small	Direct Install - SCI	0	0
C&I Energy Solutions for Business - Small	Energy Management - SCI	0	0
C&I Energy Solutions for Business - Small	Multi Family - SCI	11	11
C&I Energy Solutions for Business - Small	Online Marketplace - SCI	0	0
C&I Energy Solutions for Business - Small	Prescriptive - SCI	0	0
C&I Energy Solutions for Business - Small	Prescriptive Other - SCI	23	23
C&I Energy Solutions for Business - Small	Street Lighting	0	0
C&I Energy Solutions for Business - Large	Custom - LCI	0	0
C&I Energy Solutions for Business - Large	Energy Management - LCI	0	0
C&I Energy Solutions for Business - Large	Multi Family - LCI	0	0
C&I Energy Solutions for Business - Large	Online Marketplace - LCI	0	0
C&I Energy Solutions for Business - Large	Prescriptive - LCI	0	0
C&I Energy Solutions for Business - Large	Prescriptive Other - LCI	0	0
<b>Portfolio Total</b>		<b>44,719</b>	<b>44,719</b>

**Table 4-1C: EE&C Plan Participation by Program Component – Penn Power**

Program	Component	PYTD Participation	P4TD Participation
Energy Efficient Homes	Behavioral	19,391	19,391
Energy Efficient Homes	Comprehensive Audits	0	0
Energy Efficient Homes	EE Kits	0	0
Energy Efficient Homes	Multi Family - Res	0	0
Energy Efficient Homes	New Homes	206	206
Energy Efficient Homes	Quick Home Energy Checkup (QHEC)	0	0
Energy Efficient Homes	School Education	0	0
Energy Efficient Homes	Smart Home	0	0
Energy Efficient Products	Appliance Rebate	3,029	3,029
Energy Efficient Products	Appliance Recycling	579	579
Energy Efficient Products	Consumer Electronics	0	0
Energy Efficient Products	HVAC	118	118
Energy Efficient Products	Lighting	0	0
Energy Efficient Products	Online Marketplace	0	0
Low Income Energy Efficiency	LI - Appliances	81	81
Low Income Energy Efficiency	LI - Behavioral	6,894	6,894
Low Income Energy Efficiency	LI - EE Kits	0	0
Low Income Energy Efficiency	LI - Multifamily - Res	7	7
Low Income Energy Efficiency	LI - New Homes	0	0
Low Income Energy Efficiency	LI - School Education	0	0
Low Income Energy Efficiency	Weatherization	272	272
C&I Energy Solutions for Business - Small	Custom - SCI	0	0
C&I Energy Solutions for Business - Small	Direct Install - SCI	0	0
C&I Energy Solutions for Business - Small	Energy Management - SCI	0	0
C&I Energy Solutions for Business - Small	Multi Family - SCI	2	2
C&I Energy Solutions for Business - Small	Online Marketplace - SCI	0	0
C&I Energy Solutions for Business - Small	Prescriptive - SCI	0	0
C&I Energy Solutions for Business - Small	Prescriptive Other - SCI	4	4
C&I Energy Solutions for Business - Small	Street Lighting	0	0
C&I Energy Solutions for Business - Large	Custom - LCI	0	0
C&I Energy Solutions for Business - Large	Energy Management - LCI	0	0
C&I Energy Solutions for Business - Large	Multi Family - LCI	0	0
C&I Energy Solutions for Business - Large	Online Marketplace - LCI	0	0
C&I Energy Solutions for Business - Large	Prescriptive - LCI	0	0
C&I Energy Solutions for Business - Large	Prescriptive Other - LCI	0	0
<b>Portfolio Total</b>		<b>30,583</b>	<b>30,583</b>

**Table 4-1D: EE&C Plan Participation by Program Component – West Penn Power**

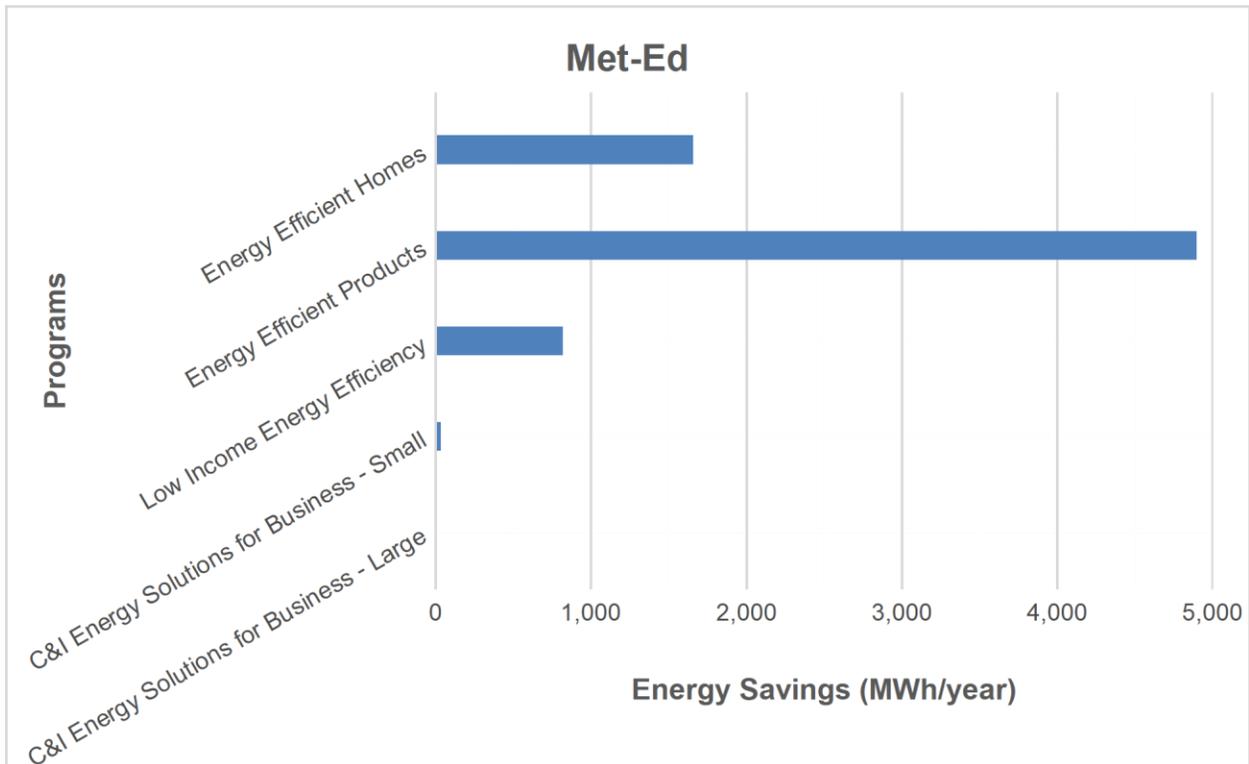
Program	Component	PYTD Participation	P4TD Participation
Energy Efficient Homes	Behavioral	47,018	47,018
Energy Efficient Homes	Comprehensive Audits	0	0
Energy Efficient Homes	EE Kits	0	0
Energy Efficient Homes	Multi Family - Res	0	0
Energy Efficient Homes	New Homes	471	471
Energy Efficient Homes	Quick Home Energy Checkup (QHEC)	0	0
Energy Efficient Homes	School Education	0	0
Energy Efficient Homes	Smart Home	0	0
Energy Efficient Products	Appliance Rebate	6,584	6,584
Energy Efficient Products	Appliance Recycling	2,303	2,303
Energy Efficient Products	Consumer Electronics	0	0
Energy Efficient Products	HVAC	457	457
Energy Efficient Products	Lighting	0	0
Energy Efficient Products	Online Marketplace	0	0
Low Income Energy Efficiency	LI - Appliances	296	296
Low Income Energy Efficiency	LI - Behavioral	10,184	10,184
Low Income Energy Efficiency	LI - EE Kits	0	0
Low Income Energy Efficiency	LI - Multifamily - Res	35	35
Low Income Energy Efficiency	LI - New Homes	0	0
Low Income Energy Efficiency	LI - School Education	0	0
Low Income Energy Efficiency	Weatherization	447	447
C&I Energy Solutions for Business - Small	Custom - SCI	0	0
C&I Energy Solutions for Business - Small	Direct Install - SCI	0	0
C&I Energy Solutions for Business - Small	Energy Management - SCI	0	0
C&I Energy Solutions for Business - Small	Multi Family - SCI	29	29
C&I Energy Solutions for Business - Small	Online Marketplace - SCI	0	0
C&I Energy Solutions for Business - Small	Prescriptive - SCI	0	0
C&I Energy Solutions for Business - Small	Prescriptive Other - SCI	11	11
C&I Energy Solutions for Business - Small	Street Lighting	0	0
C&I Energy Solutions for Business - Large	Custom - LCI	0	0
C&I Energy Solutions for Business - Large	Energy Management - LCI	0	0
C&I Energy Solutions for Business - Large	Multi Family - LCI	0	0
C&I Energy Solutions for Business - Large	Online Marketplace - LCI	0	0
C&I Energy Solutions for Business - Large	Prescriptive - LCI	0	0
C&I Energy Solutions for Business - Large	Prescriptive Other - LCI	1	1
<b>Portfolio Total</b>		<b>67,836</b>	<b>67,836</b>

## Section 5 Summary of Energy Impacts by Program

Figures 5A-5D: PYTD Reported Gross Energy Savings by Program present a summary of the PYTD reported gross energy savings by program for Program Year 13. The energy impacts in this report are presented at the meter level and do not reflect adjustments for transmission and distribution losses.

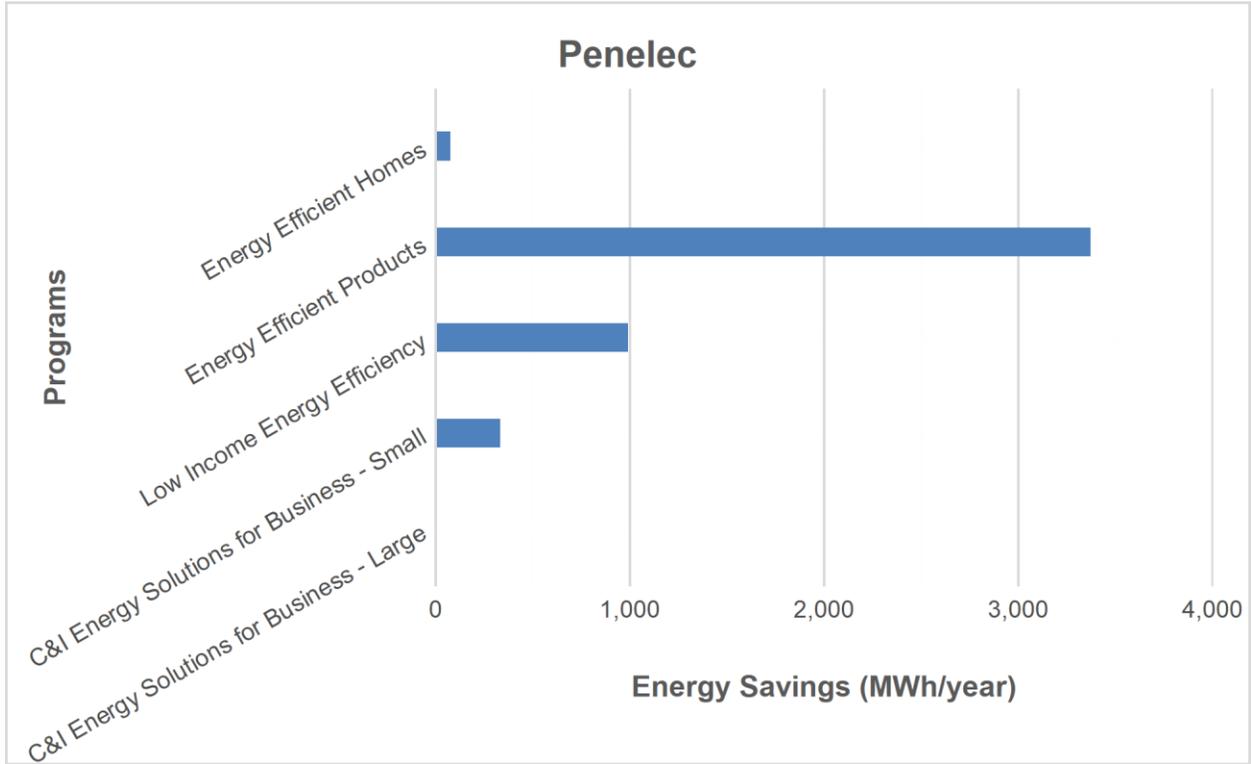
### Figures 5A-5D: PYTD Reported Gross Energy Savings by Program<sup>3</sup>

Figure 5A: PYTD Reported Gross Energy Savings by Program - Met-Ed

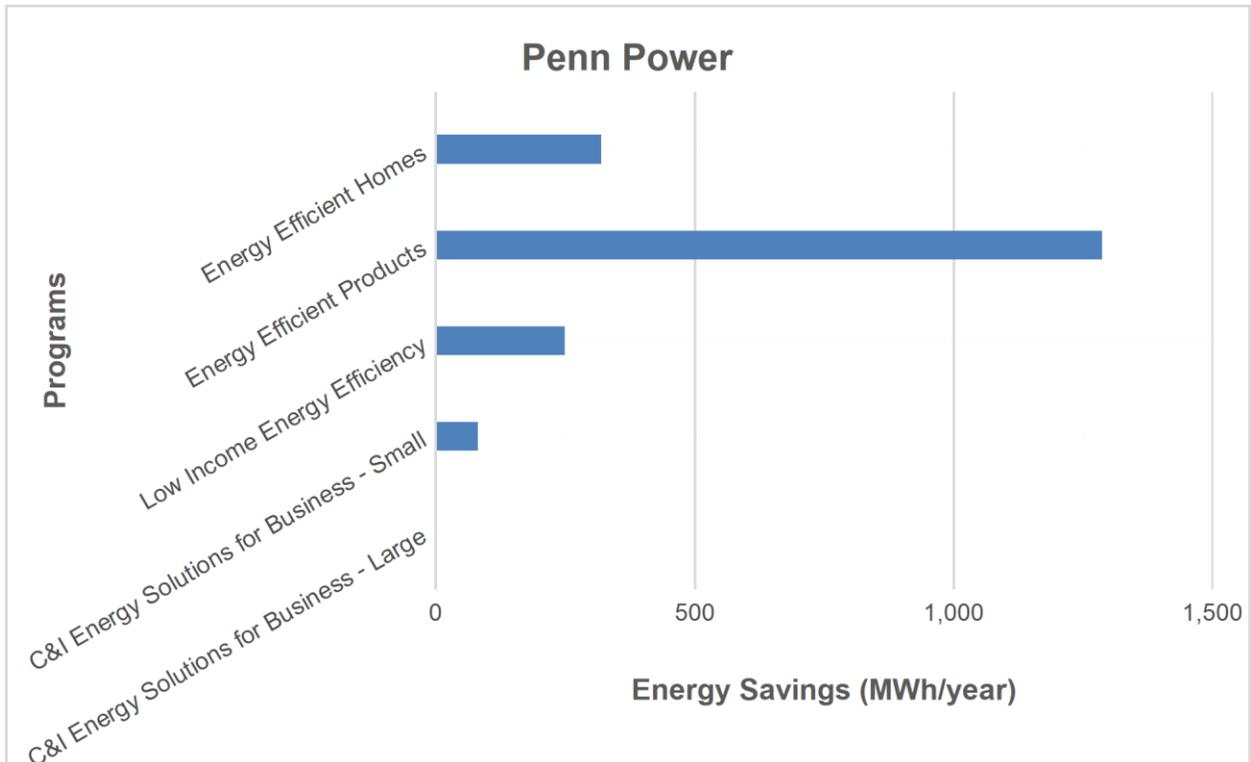


<sup>3</sup> Results for the Small & Large Energy Solutions for Business programs include GNI customers who participated in these programs.

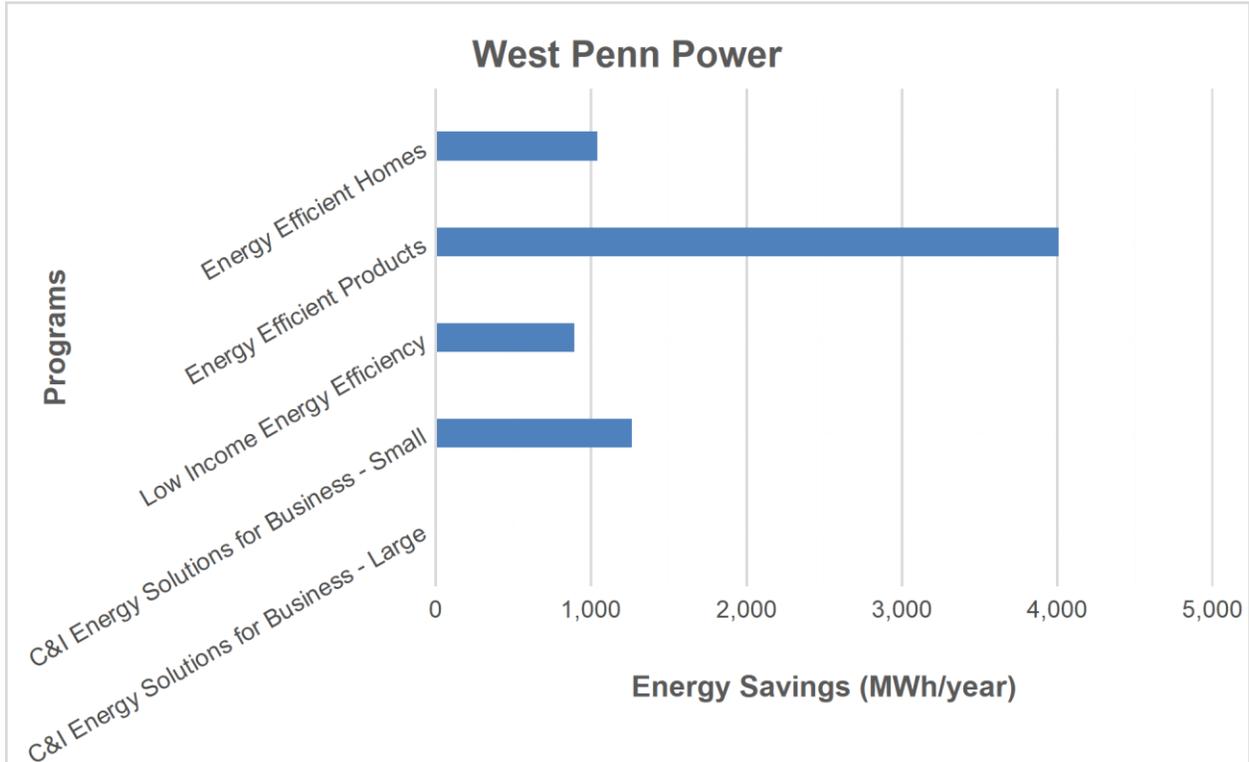
**Figure 5B: PYTD Reported Gross Energy Savings by Program – Penelec**



**Figure 5C: PYTD Reported Gross Energy Savings by Program - Penn Power**



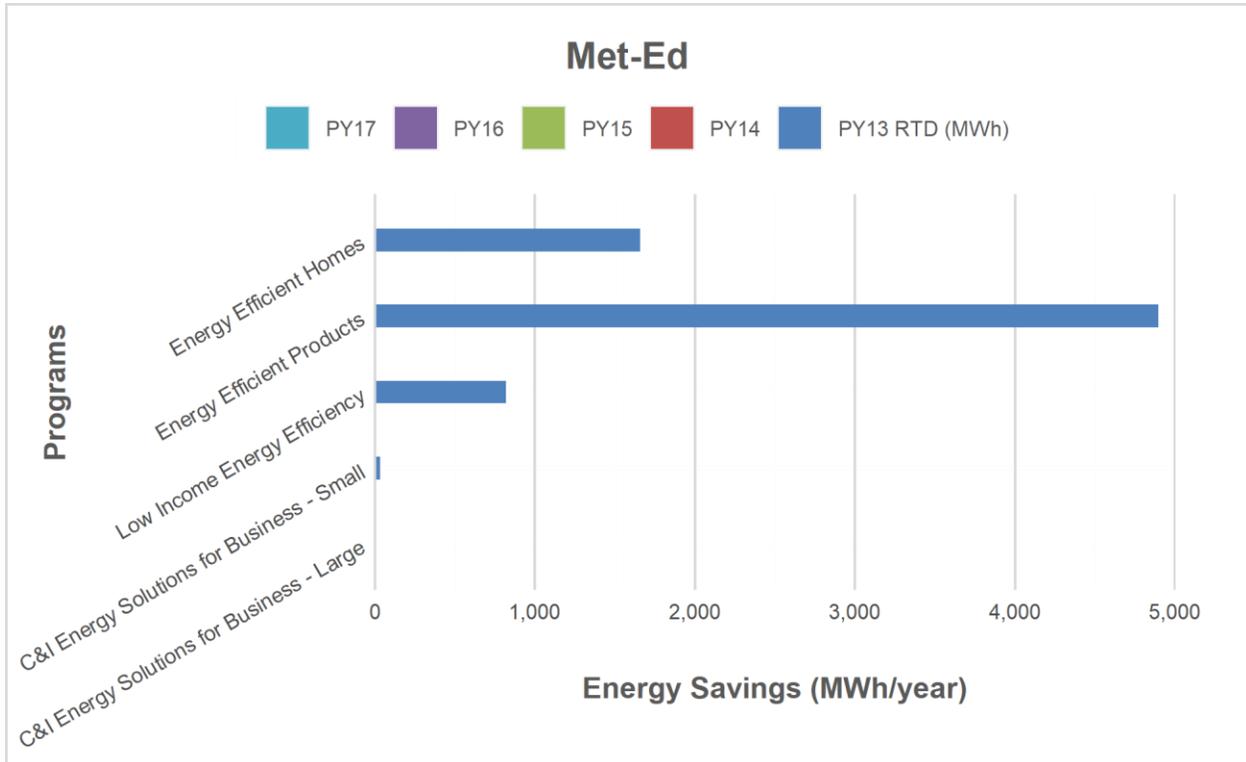
**Figure 5D: PYTD Reported Gross Energy Savings by Program - West Penn Power**



Figures 6A-6D: PSA Energy Savings by Program for Phase IV present a summary of the PSA gross energy savings by program for Phase IV of Act 129. PSA savings include verified gross savings from previous program years and the PYTD savings from the current program year.

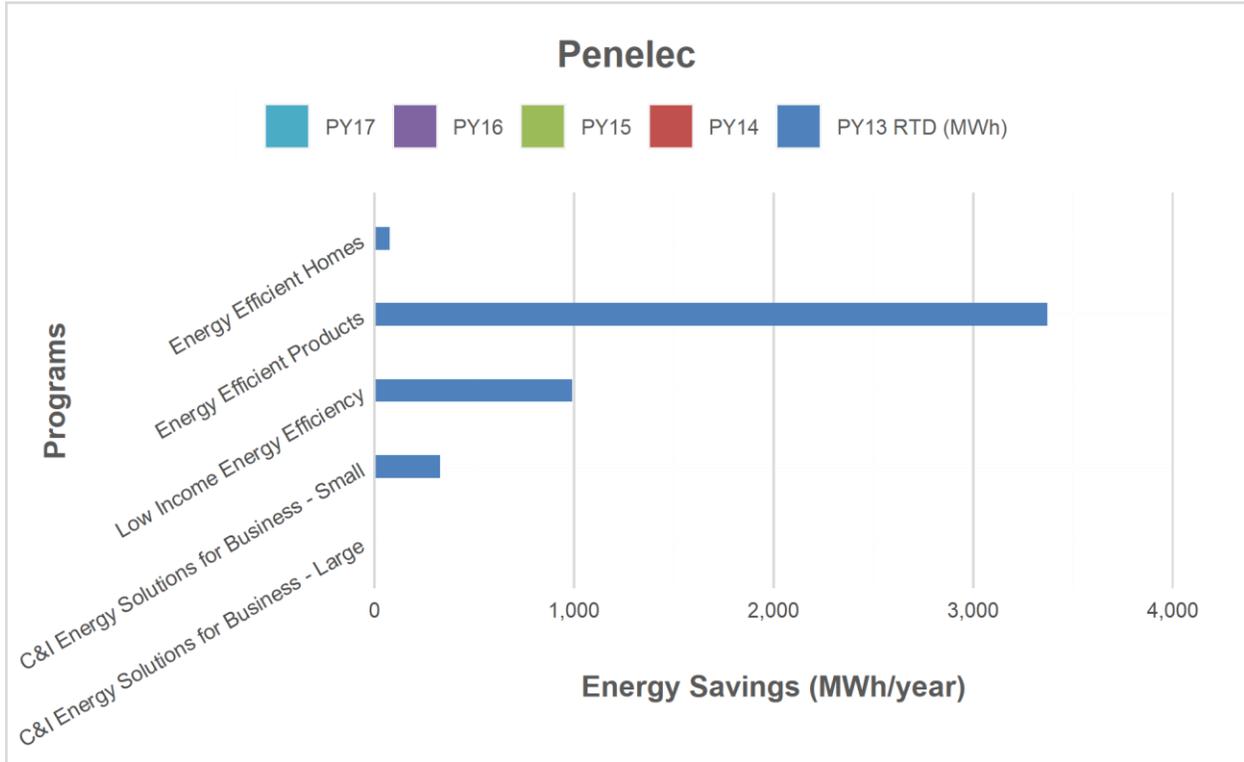
**Figures 6A-6D: PSA Energy Savings by Program for Phase IV<sup>4</sup>**

**Figure 6A: PSA Energy Savings by Program for Phase IV - Met-Ed**

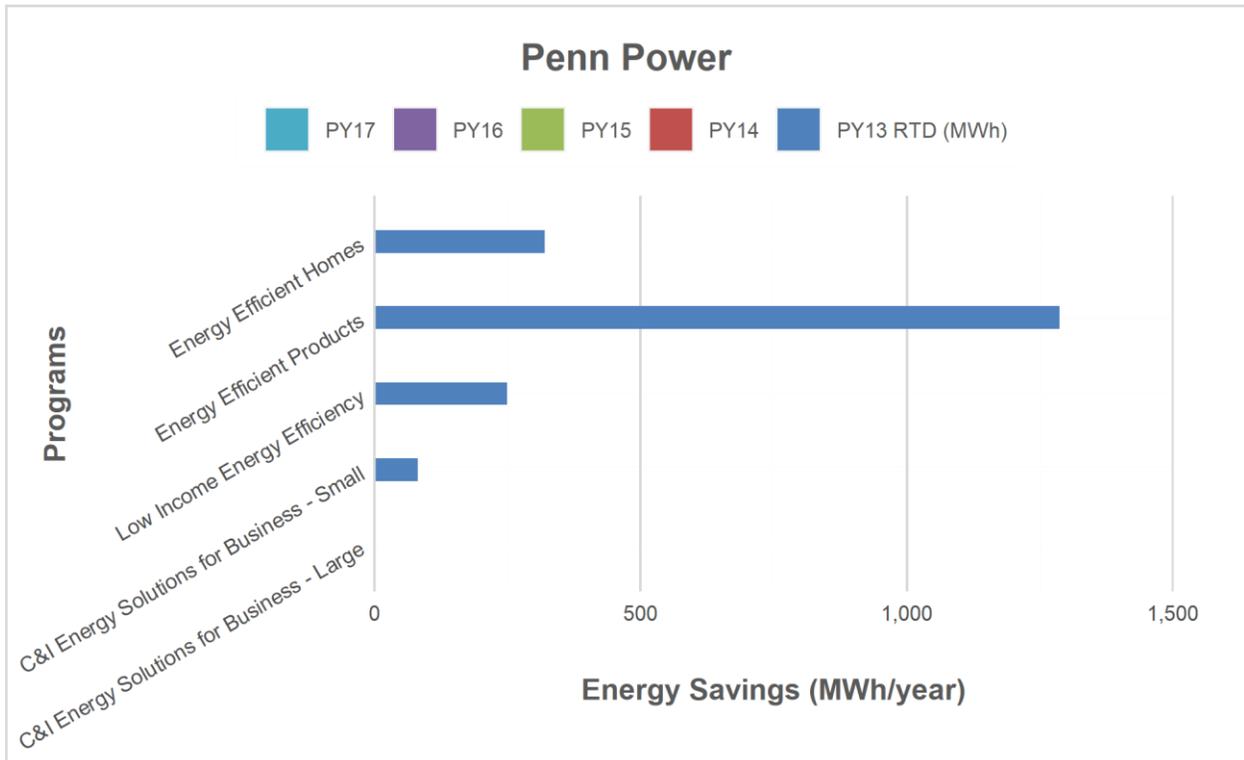


<sup>4</sup> Results for the Small & Large Energy Solutions for Business programs include GNI customers who participated in these programs.

**Figure 6B: PSA Energy Savings by Program for Phase IV – Penelec**



**Figure 6C: PSA Energy Savings by Program for Phase IV - Penn Power**



**Figure 6D: PSA Energy Savings by Program for Phase IV - West Penn Power**

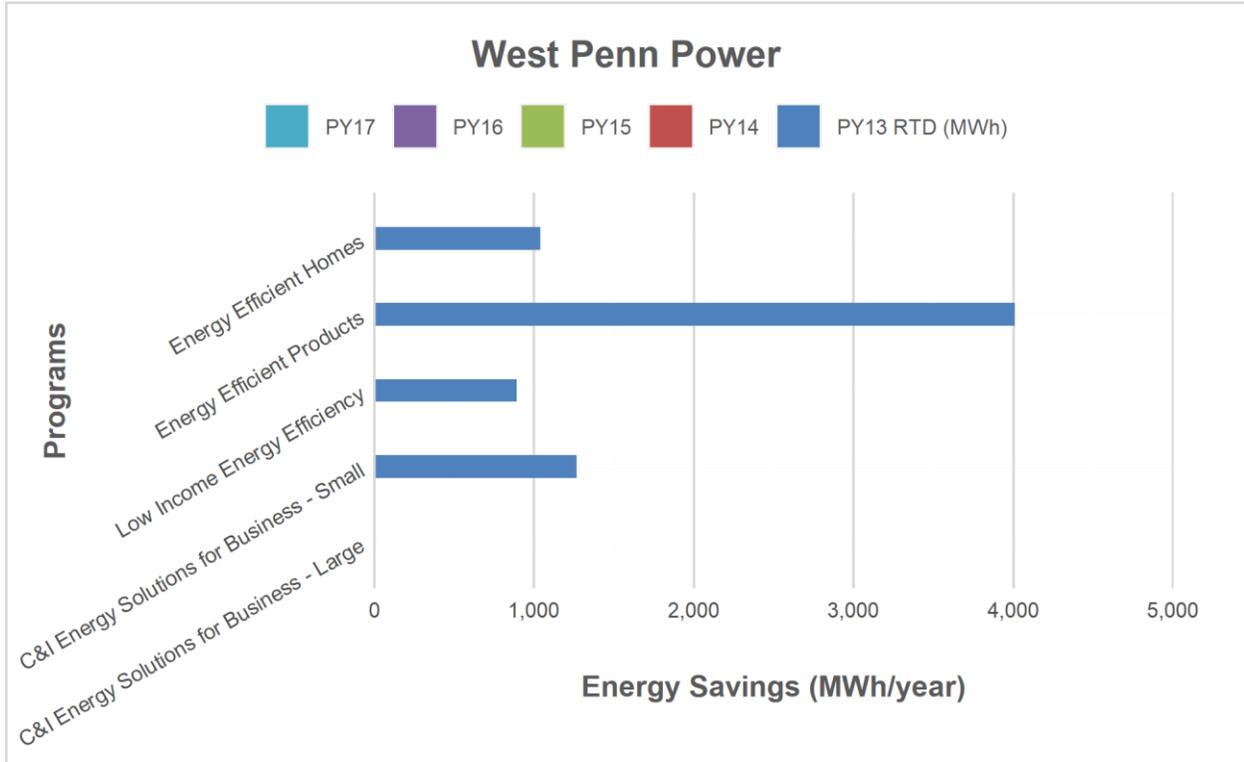


Table 5-1<sup>5</sup> presents a summary of energy impacts by program through the current reporting period.

<sup>5</sup> Results for the Small & Large Energy Solutions for Business programs include GNI customers who participated in these programs.

**Table 5-1: Energy Savings by Program (MWh/Year)**

Utility	Program	PYRTD	RTD	VTD	PSA
Met-Ed	Energy Efficient Homes	1,658	1,658	0	1,658
	Energy Efficient Products	4,896	4,896	0	4,896
	Low Income Energy Efficiency	820	820	0	820
	C&I Energy Solutions for Business - Small	34	34	0	34
	C&I Energy Solutions for Business - Large	0	0	0	0
	<b>Portfolio Total</b>	<b>7,408</b>	<b>7,408</b>	<b>0</b>	<b>7,408</b>
Penelec	Energy Efficient Homes	77	77	0	77
	Energy Efficient Products	3,370	3,370	0	3,370
	Low Income Energy Efficiency	990	990	0	990
	C&I Energy Solutions for Business - Small	330	330	0	330
	C&I Energy Solutions for Business - Large	0	0	0	0
	<b>Portfolio Total</b>	<b>4,767</b>	<b>4,767</b>	<b>0</b>	<b>4,767</b>
Penn Power	Energy Efficient Homes	319	319	0	319
	Energy Efficient Products	1,286	1,286	0	1,286
	Low Income Energy Efficiency	249	249	0	249
	C&I Energy Solutions for Business - Small	82	82	0	82
	C&I Energy Solutions for Business - Large	0	0	0	0
	<b>Portfolio Total</b>	<b>1,936</b>	<b>1,936</b>	<b>0</b>	<b>1,936</b>
West Penn Power	Energy Efficient Homes	1,039	1,039	0	1,039
	Energy Efficient Products	4,010	4,010	0	4,010
	Low Income Energy Efficiency	890	890	0	890
	C&I Energy Solutions for Business - Small	1,264	1,264	0	1,264
	C&I Energy Solutions for Business - Large	1	1	0	1
	<b>Portfolio Total</b>	<b>7,203</b>	<b>7,203</b>	<b>0</b>	<b>7,203</b>

## Section 6 Summary of Peak Demand Impacts by Program

Act 129 defines peak demand reduction from energy efficiency as the average expected reduction in electric demand from 2:00 p.m. to 6:00 p.m. EDT on non-holiday weekdays from June to August. The peak demand impacts from energy efficiency in this report are presented at the system level, meaning they reflect adjustments for transmission and distribution losses. The FirstEnergy EDCs use the line loss factors by sector presented in Table 6-1.

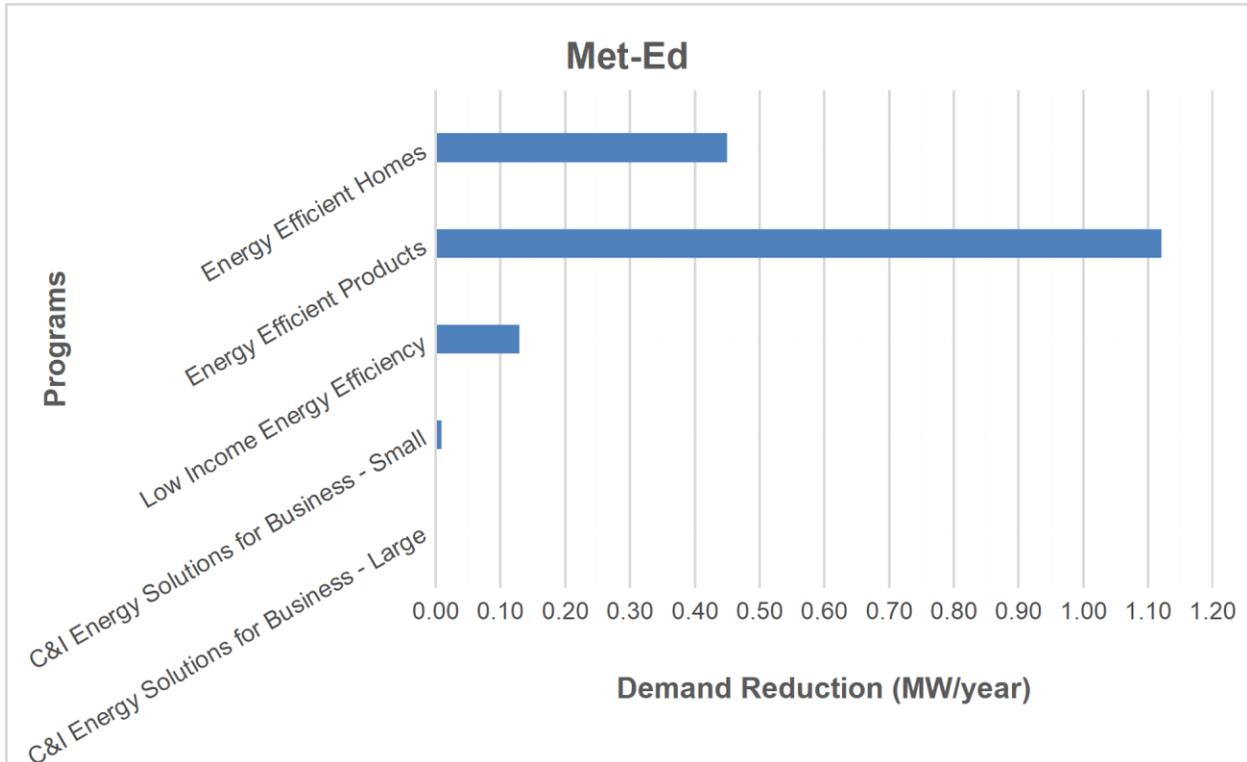
**Table 6-1: Line Loss Factors by EDC**

EDC	Residential	Small C&I	Large C&I
<b>Met-Ed</b>	1.0945	1.0720	1.0720
<b>Penelec</b>	1.0945	1.0720	1.0720
<b>Penn Power</b>	1.0949	1.0545	1.0545
<b>West Penn Power</b>	1.0943	1.0790	1.0790

Figures 7A-7D: PYRTD Gross Peak Demand Reduction by Program present a summary of the PYRTD reported gross peak demand reduction by energy efficiency program for Program Year 13.

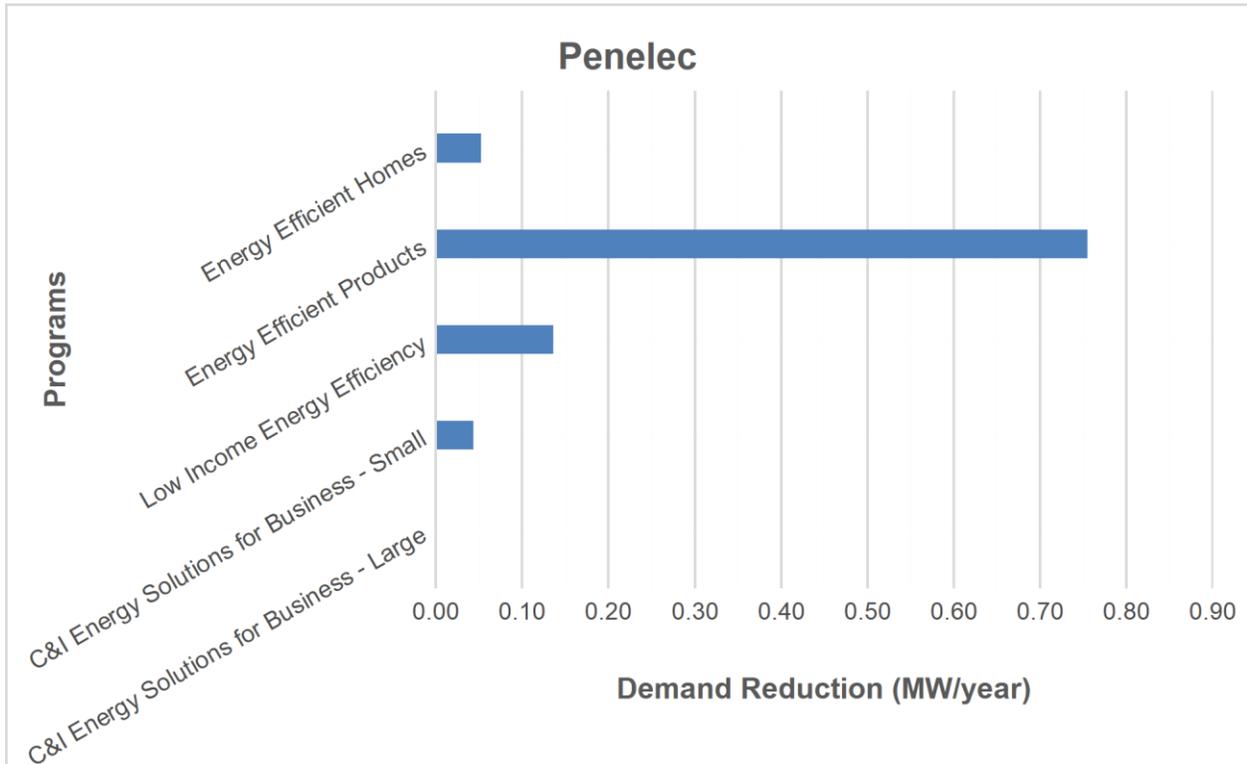
**Figures 7A-7D: PYRTD Gross Peak Demand Reduction by Program<sup>6</sup>**

**Figure 7A: PYRTD Gross Peak Demand Reduction by Program - Met-Ed**

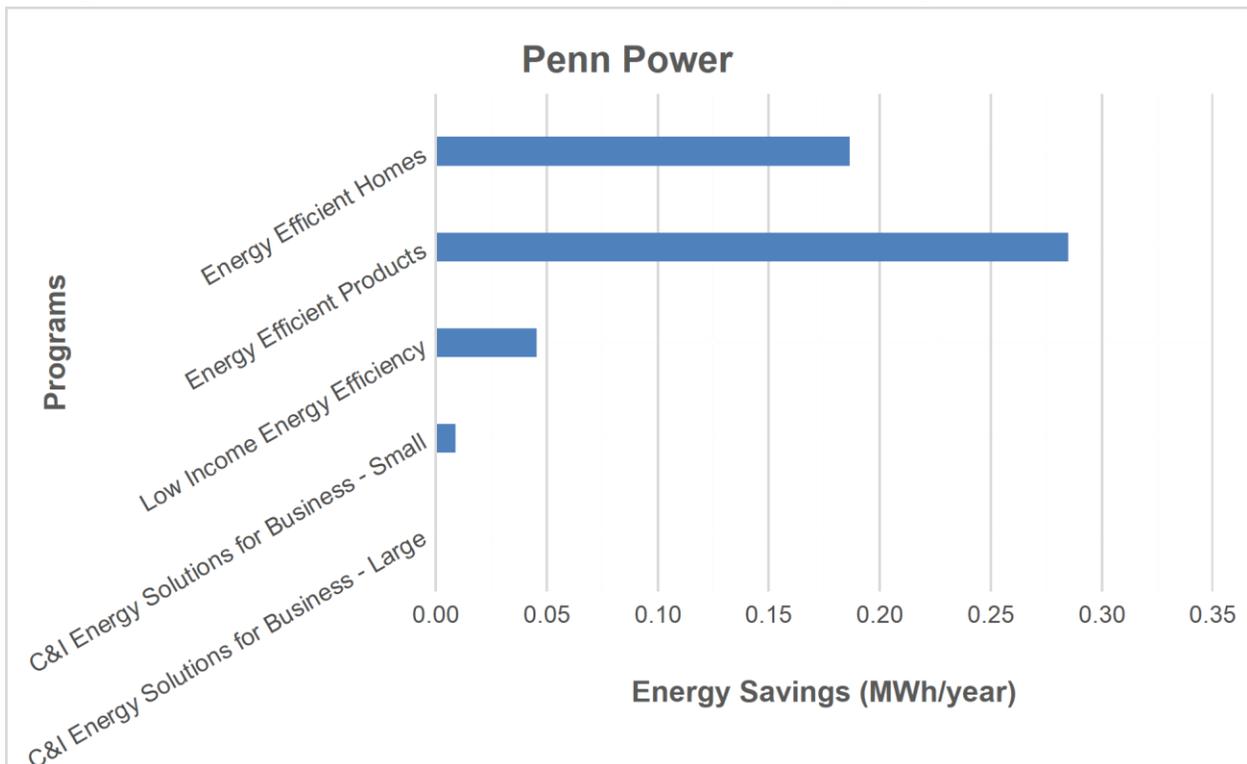


<sup>6</sup> Results for the Small & Large Energy Solutions for Business programs include GNI customers who participated in these programs.

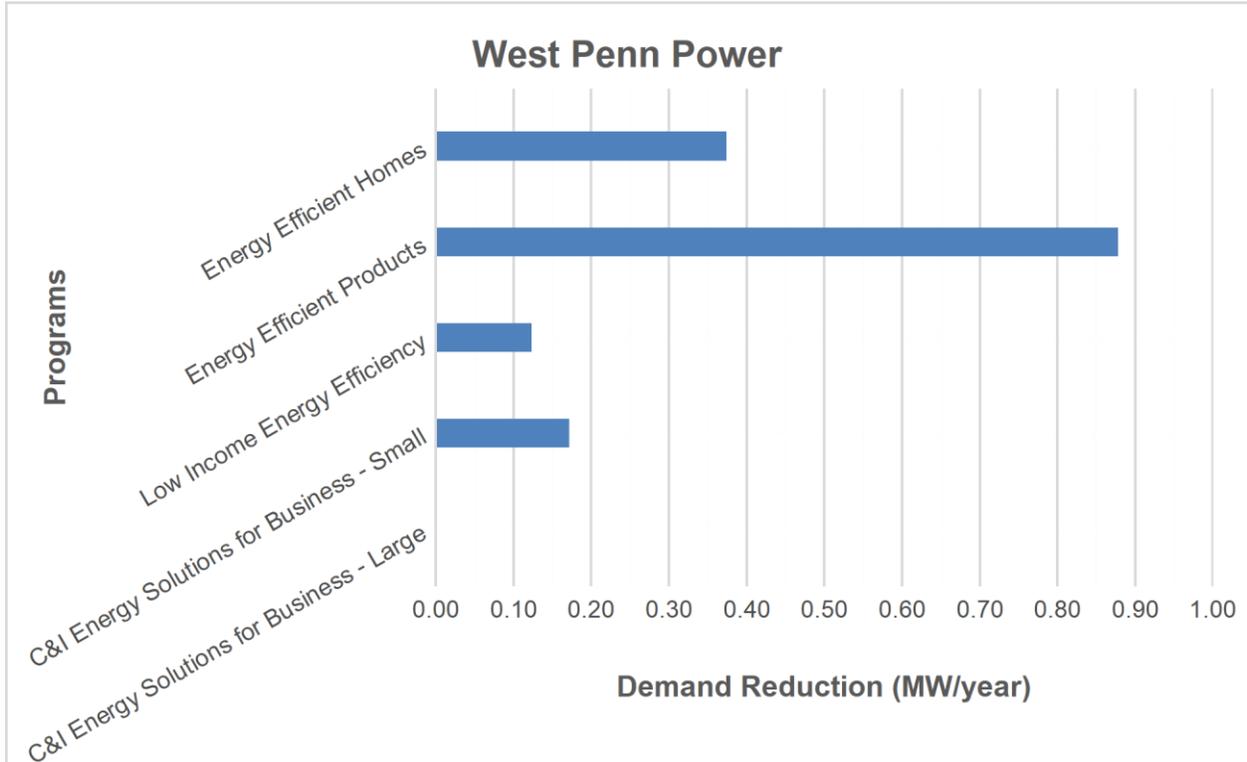
**Figure 7B: PYRTD Gross Peak Demand Reduction by Program – Penelec**



**Figure 7C: PYRTD Gross Peak Demand Reduction by Program - Penn Power**



**Figure 7D: PYRTD Gross Peak Demand Reduction by Program - West Penn Power**

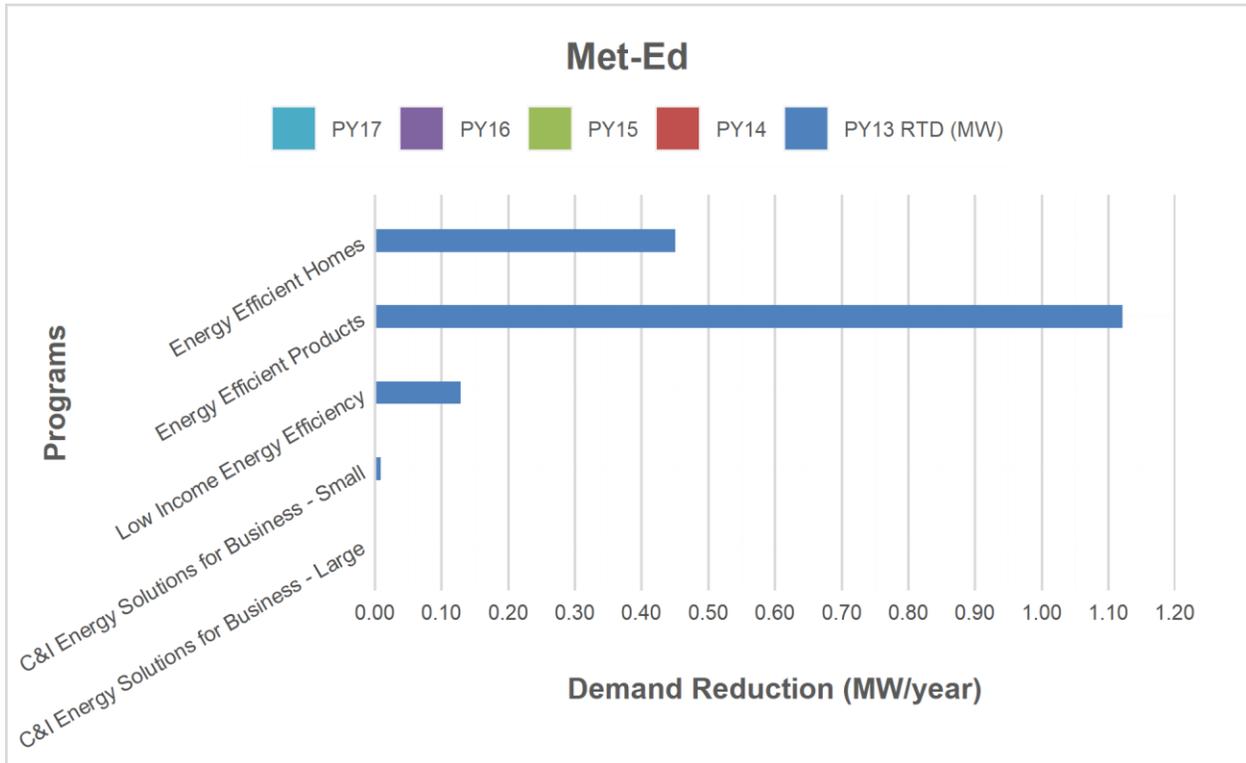


Figures 8A-8D: PSA Gross Peak Demand Reduction by Energy Efficiency Program for Phase IV present a summary of the PSA gross peak demand reduction by energy efficiency program for Phase IV of Act 129.<sup>7</sup>

<sup>7</sup> Results for the Small & Large Energy Solutions for Business programs include GNI customers who participated in these programs.

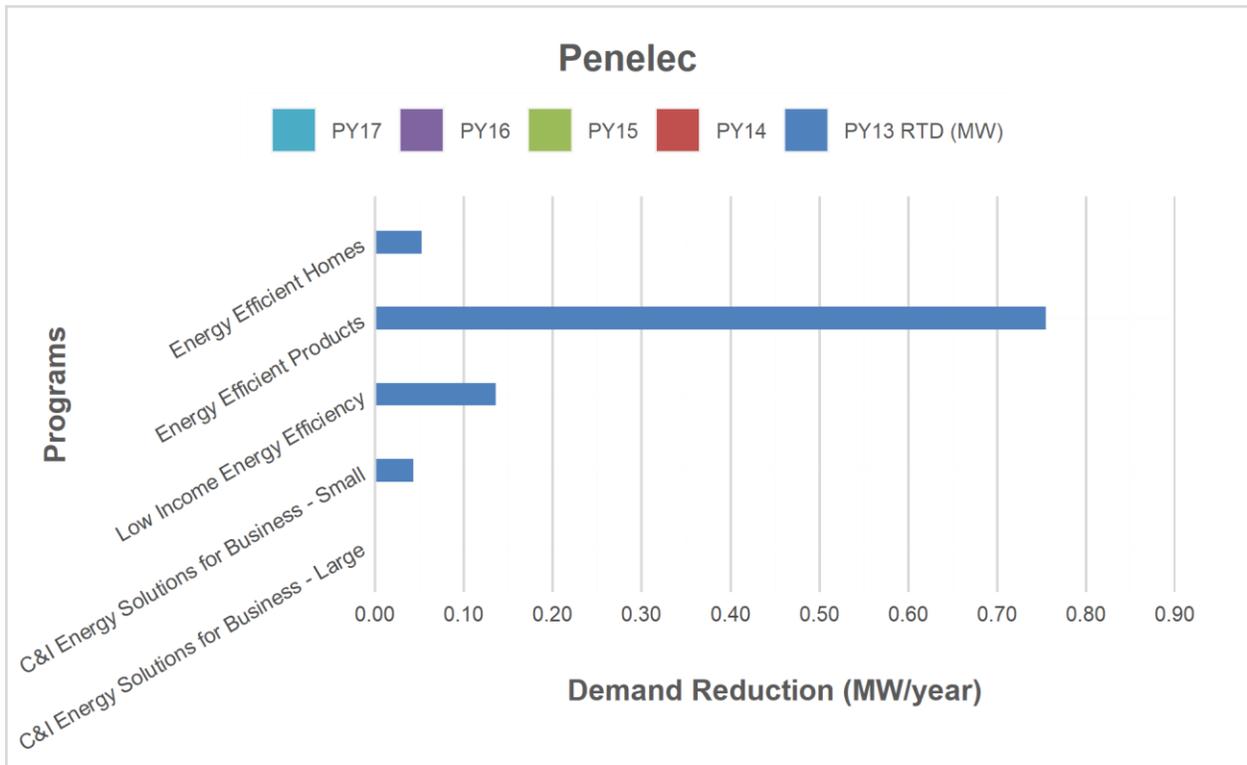
**Figures 8A-8D: PSA Gross Peak Demand Reduction by Energy Efficiency Program for Phase IV<sup>8</sup>**

**Figure 8A: PSA Gross Peak Demand Reduction by Energy Efficiency Program for Phase IV – Met-Ed**

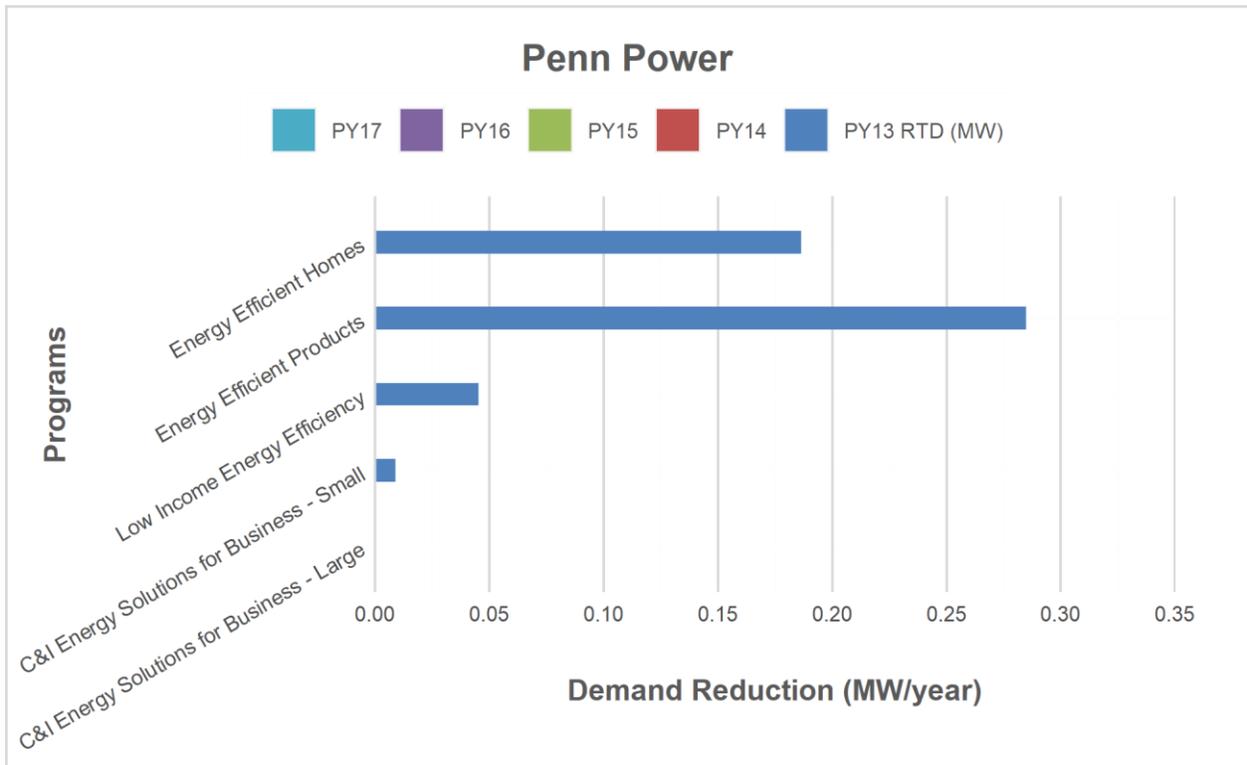


<sup>8</sup> Results for the Small & Large Energy Solutions for Business programs include GNI customers who participated in these programs.

**Figure 8B: PSA Gross Peak Demand Reduction by Energy Efficiency Program for Phase IV – Penelec**



**Figure 8C: PSA Gross Peak Demand Reduction by Energy Efficiency Program for Phase IV – Penn Power**



**Figure 8D: PSA Gross Peak Demand Reduction by Energy Efficiency Program for Phase IV – West Penn Power**

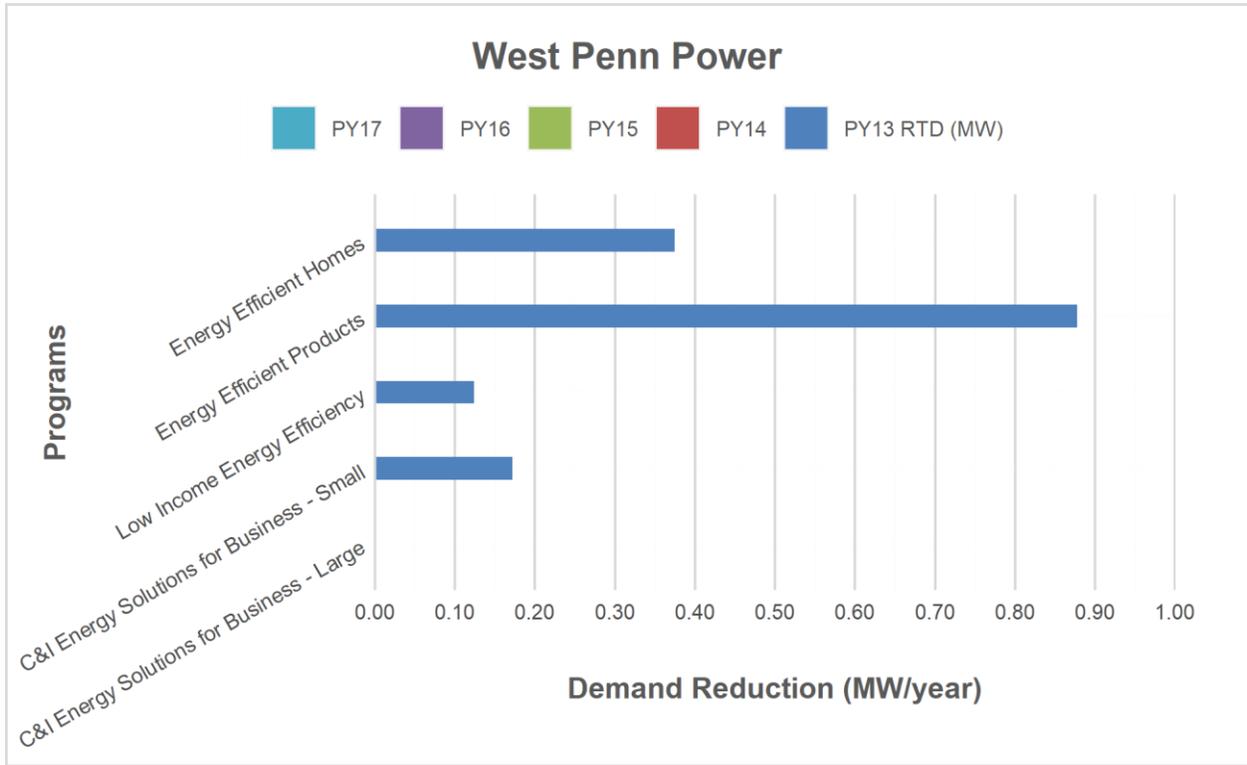


Table 6-2 presents a summary of the peak demand impacts by program through the current reporting period.

**Table 6-2: Peak Demand Reduction by Program (MW/Year)<sup>9</sup>**

Utility	Program	PYRTD	RTD	VTD	PSA
<b>Met-Ed</b>	Energy Efficient Homes	0.45	0.45	0.00	0.45
	Energy Efficient Products	1.12	1.12	0.00	1.12
	Low Income Energy Efficiency	0.13	0.13	0.00	0.13
	C&I Energy Solutions for Business - Small	0.01	0.01	0.00	0.01
	C&I Energy Solutions for Business - Large	0.00	0.00	0.00	0.00
	<b>Portfolio Total</b>	<b>1.71</b>	<b>1.71</b>	<b>0.00</b>	<b>1.71</b>
<b>Penelec</b>	Energy Efficient Homes	0.05	0.05	0.00	0.05
	Energy Efficient Products	0.75	0.75	0.00	0.75
	Low Income Energy Efficiency	0.14	0.14	0.00	0.14
	C&I Energy Solutions for Business - Small	0.04	0.04	0.00	0.04
	C&I Energy Solutions for Business - Large	0.00	0.00	0.00	0.00
	<b>Portfolio Total</b>	<b>0.99</b>	<b>0.99</b>	<b>0.00</b>	<b>0.99</b>
<b>Penn Power</b>	Energy Efficient Homes	0.19	0.19	0.00	0.19
	Energy Efficient Products	0.28	0.28	0.00	0.28
	Low Income Energy Efficiency	0.05	0.05	0.00	0.05
	C&I Energy Solutions for Business - Small	0.01	0.01	0.00	0.01
	C&I Energy Solutions for Business - Large	0.00	0.00	0.00	0.00
	<b>Portfolio Total</b>	<b>0.53</b>	<b>0.53</b>	<b>0.00</b>	<b>0.53</b>
<b>West Penn Power</b>	Energy Efficient Homes	0.37	0.37	0.00	0.37
	Energy Efficient Products	0.88	0.88	0.00	0.88
	Low Income Energy Efficiency	0.12	0.12	0.00	0.12
	C&I Energy Solutions for Business - Small	0.17	0.17	0.00	0.17
	C&I Energy Solutions for Business - Large	0.00	0.00	0.00	0.00
	<b>Portfolio Total</b>	<b>1.55</b>	<b>1.55</b>	<b>0.00</b>	<b>1.55</b>

<sup>9</sup> Results for the Small & Large Energy Solutions for Business programs include GNI customers who participated in these programs.

## Section 7      Section 7      Summary of Finances

This section provides an overview of the expenditures associated with the FirstEnergy EDCs' portfolios and the recovery of those costs from ratepayers.

### 7.1 PROGRAM FINANCIALS

Program-specific and portfolio total finances for PY13 are shown in Table 7-1A to 7-1D. The columns in these tables are adapted from the list of 'Program Cost Elements' in the Commission's EE&C Plan template<sup>10</sup> for Phase IV. Thus far in PY13, 26% of Met-Ed, 24% of Penelec, 28% of Penn Power, and 37% of West Penn Power's EE&C Plan expenditures have been incentives to participants and trade allies.

- Incentives includes rebates, point-of-sale buydowns, kits, and direct install materials and labor
- EDC Materials, Labor, and Administration includes costs associated with an EDC's own employees.
- ICSP Materials, Labor, and Administration includes both the program implementation contractor and the costs of any other outside vendors and EDCs employs to support program delivery.

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<sup>10</sup> <https://www.puc.pa.gov/pcdocs/1676672.docx>

Table 7-1A to 7-1D: Program Year to Date Financials<sup>11</sup>

## Table 7-1A: Program Year to Date Financials – Met-Ed

Program	Incentives to Participants and Trade Allies	EDC Materials, Labor, and Administration	ICSP Materials, Labor, and Administration	EM&V	Total EDC Cost
<i>Energy Efficient Homes</i>	\$244,698	\$103,404	\$276,567	\$16,133	\$640,801
<i>Energy Efficient Products</i>	\$595,430	\$91,925	\$540,677	\$17,606	\$1,245,639
<i>Low Income Energy Efficiency</i>	\$81,861	\$77,014	\$374,036	\$10,058	\$542,969
<i>C&amp;I Energy Solutions for Business - Small</i>	\$2,500	\$149,874	\$324,442	\$37,846	\$514,661
<i>C&amp;I Energy Solutions for Business - Large</i>	\$575	\$184,290	\$206,624	\$50,211	\$441,699
<i>Common Portfolio Costs</i>					\$0
<i>Total Portfolio</i>	\$925,065	\$606,506	\$1,722,346	\$131,854	\$3,385,769
<i>SWE Costs</i>	\$0	\$0	\$0	\$0	\$126,720
<i>Total</i>	\$925,065	\$606,506	\$1,722,346	\$131,854	\$3,512,489

<sup>11</sup> Results for the Small & Large Energy Solutions for Business programs include GNI customers who participated in these programs.

**Table 7-1B: Program Year to Date Financials – Penelec**

<b>Program</b>	<b>Incentives to Participants and Trade Allies</b>	<b>EDC Materials, Labor, and Administration</b>	<b>ICSP Materials, Labor, and Administration</b>	<b>EM&amp;V</b>	<b>Total EDC Cost</b>
<i>Energy Efficient Homes</i>	\$32,488	\$87,437	\$139,731	\$13,015	\$272,672
<i>Energy Efficient Products</i>	\$361,685	\$89,759	\$377,143	\$17,165	\$845,753
<i>Low Income Energy Efficiency</i>	\$151,154	\$95,259	\$390,585	\$10,861	\$647,860
<i>C&amp;I Energy Solutions for Business - Small</i>	\$207,776	\$169,045	\$478,312	\$42,163	\$897,296
<i>C&amp;I Energy Solutions for Business - Large</i>	\$200	\$137,978	\$167,897	\$36,875	\$342,950
<i>Common Portfolio Costs</i>					\$0
<i>Total Portfolio</i>	\$753,304	\$579,479	\$1,553,668	\$120,080	\$3,006,531
<i>SWE Costs</i>	\$0	\$0	\$0	\$0	\$114,840
<i>Total</i>	\$753,304	\$579,479	\$1,553,668	\$120,080	\$3,121,371

**Table 7-1C: Program Year to Date Financials – Penn Power**

<b>Program</b>	<b>Incentives to Participants and Trade Allies</b>	<b>EDC Materials, Labor, and Administration</b>	<b>ICSP Materials, Labor, and Administration</b>	<b>EM&amp;V</b>	<b>Total EDC Cost</b>
<i>Energy Efficient Homes</i>	\$98,666	\$40,474	\$121,826	\$5,515	\$266,482
<i>Energy Efficient Products</i>	\$159,925	\$30,565	\$148,191	\$5,079	\$343,760
<i>Low Income Energy Efficiency</i>	\$41,815	\$29,429	\$151,701	\$3,324	\$226,269
<i>C&amp;I Energy Solutions for Business - Small</i>	\$35,875	\$56,021	\$90,006	\$10,767	\$192,669
<i>C&amp;I Energy Solutions for Business - Large</i>	\$0	\$45,669	\$68,275	\$9,372	\$123,316
<i>Common Portfolio Costs</i>					\$0
<i>Total Portfolio</i>	\$336,280	\$202,159	\$580,000	\$34,057	\$1,152,496
<i>SWE Costs</i>	\$0	\$0	\$0	\$0	\$35,640
<i>Total</i>	\$336,280	\$202,159	\$580,000	\$34,057	\$1,188,136

**Table 7-1D: Program Year to Date Financials - West Penn Power**

<b>Program</b>	<b>Incentives to Participants and Trade Allies</b>	<b>EDC Materials, Labor, and Administration</b>	<b>ICSP Materials, Labor, and Administration</b>	<b>EM&amp;V</b>	<b>Total EDC Cost</b>
<i>Energy Efficient Homes</i>	\$218,688	\$121,947	\$301,685	\$18,660	\$660,980
<i>Energy Efficient Products</i>	\$456,655	\$108,093	\$485,095	\$20,965	\$1,070,808
<i>Low Income Energy Efficiency</i>	\$69,386	\$84,531	\$320,364	\$10,969	\$485,250
<i>C&amp;I Energy Solutions for Business - Small</i>	\$846,573	\$153,412	\$596,248	\$37,410	\$1,633,643
<i>C&amp;I Energy Solutions for Business - Large</i>	\$250	\$135,277	\$146,862	\$35,638	\$318,027
<i>Common Portfolio Costs</i>					\$0
<i>Total Portfolio</i>	\$1,591,551	\$603,261	\$1,850,253	\$123,642	\$4,168,708
<i>SWE Costs</i>	\$0	\$0	\$0	\$0	\$118,800
<i>Total</i>	\$1,591,551	\$603,261	\$1,850,253	\$123,642	\$4,287,508

Program-specific and portfolio total finances since the inception of Phase IV are shown in Table 7-2A to 7-2D.

**Table 7-2A to 7-2D: Phase IV to Date Financials<sup>12</sup>**

**Table 7-2A: Phase IV to Date Financials- Met-Ed**

<b>Program</b>	<b>Incentives to Participants and Trade Allies</b>	<b>EDC Materials, Labor, and Administration</b>	<b>ICSP Materials, Labor, and Administration</b>	<b>EM&amp;V</b>	<b>Total EDC Cost</b>
<i>Energy Efficient Homes</i>	\$244,698	\$103,404	\$276,567	\$16,133	\$640,801
<i>Energy Efficient Products</i>	\$595,430	\$91,925	\$540,677	\$17,606	\$1,245,639
<i>Low Income Energy Efficiency</i>	\$81,861	\$77,014	\$374,036	\$10,058	\$542,969
<i>C&amp;I Energy Solutions for Business - Small</i>	\$2,500	\$149,874	\$324,442	\$37,846	\$514,661
<i>C&amp;I Energy Solutions for Business - Large</i>	\$575	\$184,290	\$206,624	\$50,211	\$441,699
<i>Common Portfolio Costs</i>					\$0
<i>Total Portfolio</i>	\$925,065	\$606,506	\$1,722,346	\$131,854	\$3,385,769
<i>SWE Costs</i>	\$0	\$0	\$0	\$0	\$126,720
<i>Total</i>	\$925,065	\$606,506	\$1,722,346	\$131,854	\$3,512,489

<sup>12</sup> Results for the Small & Large Energy Solutions for Business programs include GNI customers who participated in these programs.

**Table 7-2B: Phase IV to Date Financials- Penelec**

<b>Program</b>	<b>Incentives to Participants and Trade Allies</b>	<b>EDC Materials, Labor, and Administration</b>	<b>ICSP Materials, Labor, and Administration</b>	<b>EM&amp;V</b>	<b>Total EDC Cost</b>
<i>Energy Efficient Homes</i>	\$32,488	\$87,437	\$139,731	\$13,015	\$272,672
<i>Energy Efficient Products</i>	\$361,685	\$89,759	\$377,143	\$17,165	\$845,753
<i>Low Income Energy Efficiency</i>	\$151,154	\$95,259	\$390,585	\$10,861	\$647,860
<i>C&amp;I Energy Solutions for Business - Small</i>	\$207,776	\$169,045	\$478,312	\$42,163	\$897,296
<i>C&amp;I Energy Solutions for Business - Large</i>	\$200	\$137,978	\$167,897	\$36,875	\$342,950
<i>Common Portfolio Costs</i>					\$0
<i>Total Portfolio</i>	\$753,304	\$579,479	\$1,553,668	\$120,080	\$3,006,531
<i>SWE Costs</i>	\$0	\$0	\$0	\$0	\$114,840
<i>Total</i>	\$753,304	\$579,479	\$1,553,668	\$120,080	\$3,121,371

**Table 7-2C: Phase IV to Date Financials- Penn Power**

<b>Program</b>	<b>Incentives to Participants and Trade Allies</b>	<b>EDC Materials, Labor, and Administration</b>	<b>ICSP Materials, Labor, and Administration</b>	<b>EM&amp;V</b>	<b>Total EDC Cost</b>
<i>Energy Efficient Homes</i>	\$98,666	\$40,474	\$121,826	\$5,515	\$266,482
<i>Energy Efficient Products</i>	\$159,925	\$30,565	\$148,191	\$5,079	\$343,760
<i>Low Income Energy Efficiency</i>	\$41,815	\$29,429	\$151,701	\$3,324	\$226,269
<i>C&amp;I Energy Solutions for Business - Small</i>	\$35,875	\$56,021	\$90,006	\$10,767	\$192,669
<i>C&amp;I Energy Solutions for Business - Large</i>	\$0	\$45,669	\$68,275	\$9,372	\$123,316
<i>Common Portfolio Costs</i>					\$0
<i>Total Portfolio</i>	\$336,280	\$202,159	\$580,000	\$34,057	\$1,152,496
<i>SWE Costs</i>	\$0	\$0	\$0	\$0	\$35,640
<i>Total</i>	\$336,280	\$202,159	\$580,000	\$34,057	\$1,188,136

**Table 7-2D: Phase IV to Date Financials- West Penn Power**

<b>Program</b>	<b>Incentives to Participants and Trade Allies</b>	<b>EDC Materials, Labor, and Administration</b>	<b>ICSP Materials, Labor, and Administration</b>	<b>EM&amp;V</b>	<b>Total EDC Cost</b>
<i>Energy Efficient Homes</i>	\$218,688	\$121,947	\$301,685	\$18,660	\$660,980
<i>Energy Efficient Products</i>	\$456,655	\$108,093	\$485,095	\$20,965	\$1,070,808
<i>Low Income Energy Efficiency</i>	\$69,386	\$84,531	\$320,364	\$10,969	\$485,250
<i>C&amp;I Energy Solutions for Business - Small</i>	\$846,573	\$153,412	\$596,248	\$37,410	\$1,633,643
<i>C&amp;I Energy Solutions for Business - Large</i>	\$250	\$135,277	\$146,862	\$35,638	\$318,027
<i>Common Portfolio Costs</i>					\$0
<i>Total Portfolio</i>	\$1,591,551	\$603,261	\$1,850,253	\$123,642	\$4,168,708
<i>SWE Costs</i>	\$0	\$0	\$0	\$0	\$118,800
<i>Total</i>	\$1,591,551	\$603,261	\$1,850,253	\$123,642	\$4,287,508

Cost-effectiveness testing for Act 129 EE&C programs is performed using the TRC Test. Benefit cost modeling is conducted annually using verified gross and verified net savings once the results of the independent impact evaluation are completed. TRC test results for PY13 will be presented in the final annual report to the PA PUC on September 30, 2022 along with a more granular breakdown of portfolio costs.

## 7.2 COST RECOVERY

Act 129 allows Pennsylvania EDCs to recover EE&C plan costs through a cost-recovery mechanism. FirstEnergy's cost-recovery charges are organized separately by five customer sectors to ensure that the electric rate classes that finance the programs are the rate classes that receive the direct energy and conservation benefits. Cost-recovery is necessarily tied to the way customers are metered and charged for electric service. Readers should be mindful of the differences between Tables Table 7-3 to 7-3D and Section 2.3. For example, the low-income customer segment is a subset of the FirstEnergy EDCs' residential tariff(s) and therefore not listed in Table 7-3A to 7-3D.

**Table 7-3A to 7-3D: EE&C Plan Expenditures by Cost-Recovery Category<sup>13</sup>****Table 7-3A: EE&C Plan Expenditures by Cost-Recovery Category – Met-Ed**

Operating Company	Cost Recovery Sector	Rate Classes Included	PYTD \$ Spending (\$1,000)	P4TD \$ Spending (\$1,000)
Met-Ed	Residential (incl. Low Income)	Rate RS	\$2,482	\$2,482
	Small C&I	Rate GS-Small, Rate GS-Medium, and Outdoor Lighting Service	\$546	\$546
	Large C&I	Rate GS-Large, Rate GP and Rate TP	\$483	\$483
	Street Lighting	Street Lighting Service, LED Street Lighting Service and Ornamental Street Lighting Service	\$1	\$1
Portfolio Total			\$3,512	\$3,512

**Table 7-3B: EE&C Plan Expenditures by Cost-Recovery Category – Penelec**

Operating Company	Cost Recovery Sector	Rate Classes Included	PYTD \$ Spending (\$1,000)	P4TD \$ Spending (\$1,000)
Penelec	Residential (incl. Low Income)	Rate RS	\$1,815	\$1,815
	Small C&I	Rate GS-Small, Rate GS-Medium, and Outdoor Lighting Service	\$932	\$932
	Large C&I	Rate GS-Large, Rate GP, and Rate LP	\$373	\$373
	Street Lighting	Street Lighting Service, LED Street Lighting Service, and Ornamental Street Lighting Service	\$1	\$1
Portfolio Total			\$3,121	\$3,121

<sup>13</sup> Includes allocation of SWE costs in each Cost Recovery Sector.

**Table 7-3C: EE&C Plan Expenditures by Cost-Recovery Category – Penn Power**

Operating Company	Cost Recovery Sector	Rate Classes Included	PYTD \$ Spending (\$1,000)	P4TD \$ Spending (\$1,000)
Penn Power	Residential (incl. Low Income)	Rate RS	\$854	\$854
	Small C&I	Rate GS, GS Special Rider GSDS, Rate GM, Rate GS-Large and POL	\$202	\$202
	Large C&I	Rate GP, and Rate GT	\$131	\$131
	Street Lighting	Rate Schedules SV, SVD, SM and LED	\$0	\$0
Portfolio Total			\$1,188	\$1,188

**Table 7-3D: EE&C Plan Expenditures by Cost-Recovery Category – West Penn Power**

Operating Company	Cost Recovery Sector	Rate Classes Included	PYTD \$ Spending (\$1,000)	P4TD \$ Spending (\$1,000)
West Penn Power	Residential (incl. Low Income)	Rate 10	\$2,276	\$2,276
	Small C&I	Rate GS 20, Rate GS 30	\$1,663	\$1,663
	Large C&I	Rate GS 35, 40, 44, 46, and Tariff No. 38	\$347	\$347
	Street Lighting	Rate Schedules 51 through 58, 71, 72	\$1	\$1
Portfolio Total			\$4,288	\$4,288

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