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January 13, 2023

VIA ELECTRONIC FILE

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120

**Re: Semi-Annual Report to the Pennsylvania Public Utility Commission and Act 129
Statewide Evaluator; Phase IV Program year Period June 1, 2022, to May 31, 2023,
for 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, and M-2020-
3020823**

Dear Secretary Chiavetta:

Enclosed please find the Semi-Annual Report to the Pennsylvania Public Utility Commission in the above-captioned matter for Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, and West Penn Power Company.

Should you have any questions regarding this matter, please do not hesitate to contact me.

Sincerely,

Daniel A. Garcia

DAG:mlr

Enclosure

cc: Certificate of Service

Semi-Annual Report to the Pennsylvania Public Utility Commission

Phase IV of Act 129

Program Year 14

(June 1, 2022 – May 31, 2023)

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

Filed January 17, 2023

For the Reporting Period Ending November 30, 2022

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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).

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.

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 14 (PY14) 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 PY14. 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 PY14 energy efficiency programs will be reported in the final annual report, to be filed on September 30, 2023.

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 1 Summary of Achievements

2.1 CARRYOVER SAVINGS FROM PHASE III OF ACT 129

The Commission's Phase IV Implementation Order¹ 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 1-1 shows total MWh/year carryover savings from Phase III for each of the FirstEnergy EDCs².

Table 1-1: Phase III Carryover Savings

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

¹ 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.

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

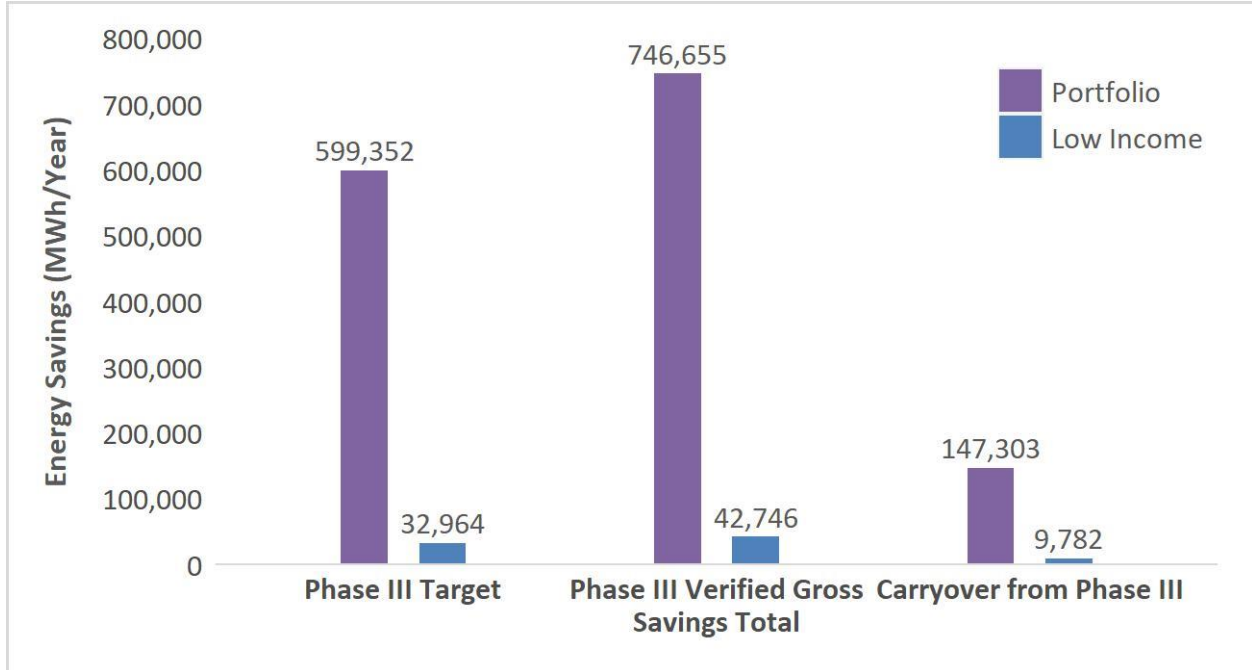


Figure 1B: Carryover Savings from Phase III of Act 129 – Penelec

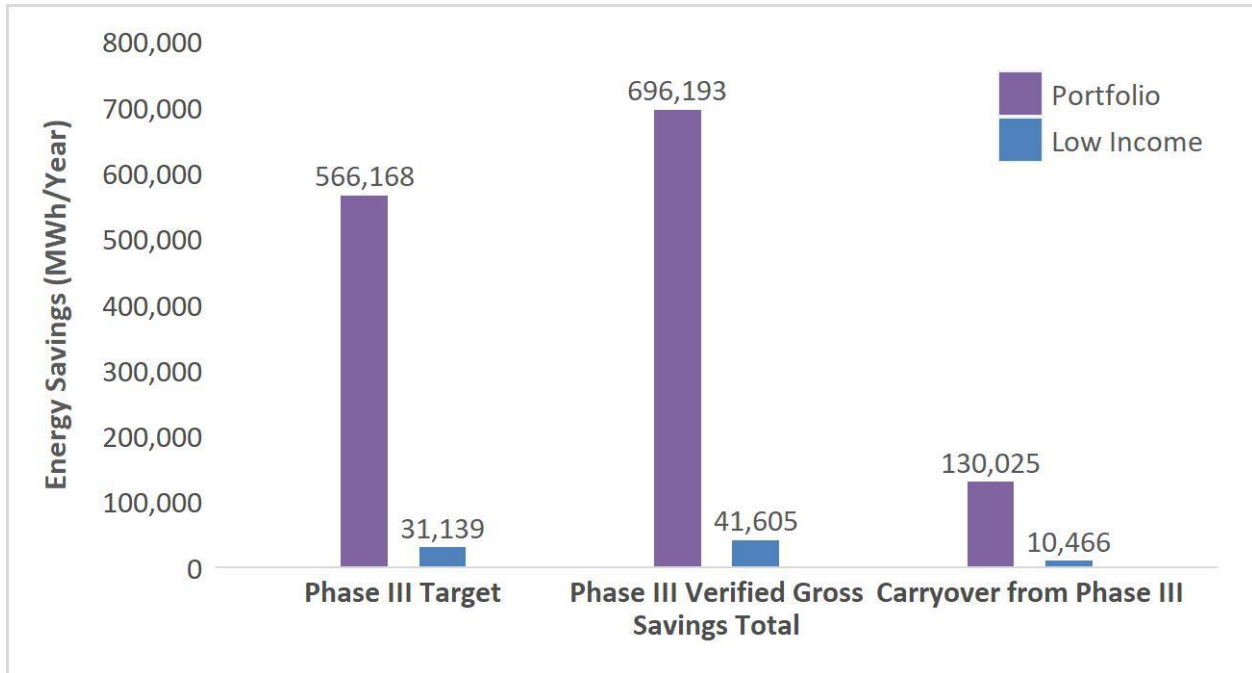


Figure 1C: Carryover Savings from Phase III of Act 129 – Penn Power

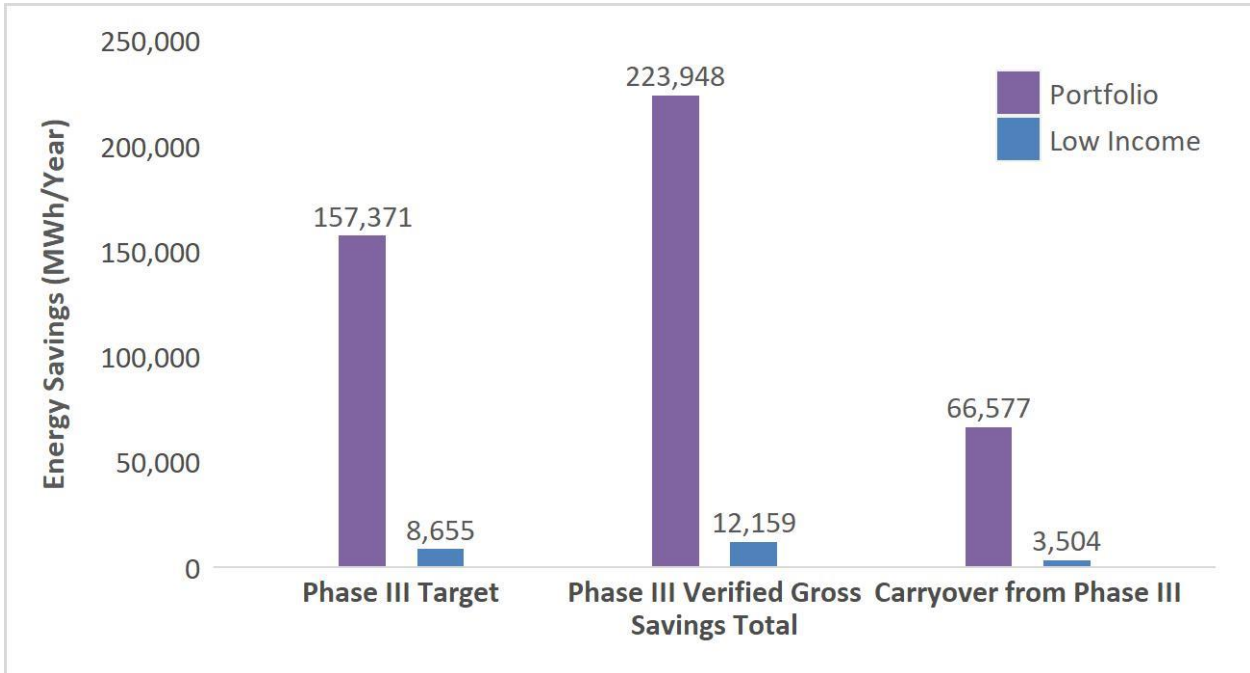
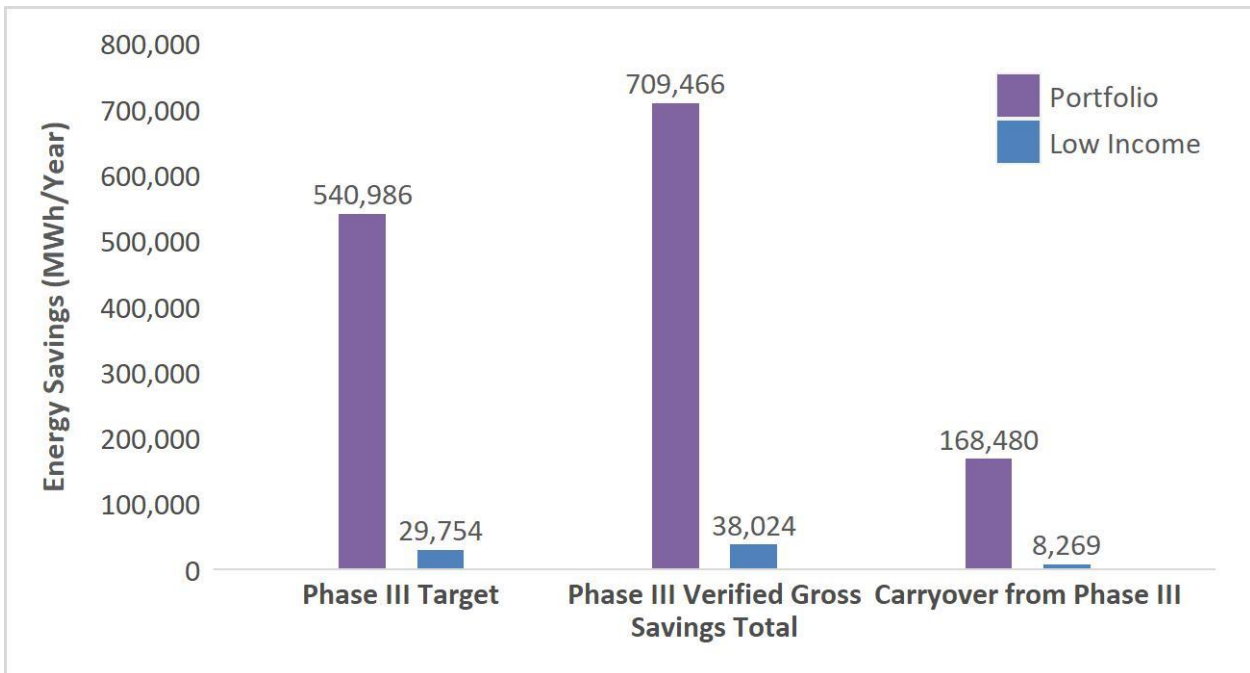


Figure 1D: Carryover Savings from Phase III of Act 129 – West Penn Power



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 1-2 presents performance to date for each of the FirstEnergy EDCs since the beginning of Program Year 14 on June 1, 2022. Since the beginning of Program Year 14 on June 1, 2022, the FirstEnergy EDCs have claimed:

Table 1-2: Gross Energy Savings and Demand Reduction for PY14

EDC	Gross MWh/yr Savings (PYRTD)	Gross Peak Demand MW Savings (PYRTD)
Met-Ed	30,394	6.07
Penelec	29,027	6.55
Penn Power	10,382	2.46
West Penn Power	33,802	7.01

Table 1-3~~Error! Reference source not found.~~ and Table 1-4 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 1-3: 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)
Met-Ed	79,581	14.01	76,849	13.18
Penelec	65,815	13.75	65,048	13.49
Penn Power	27,024	4.98	26,316	4.56
West Penn Power	80,140	14.20	77,440	12.86

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

Table 1-4: 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
Met-Ed	76,849	147,303	224,152	48%
Penelec	65,048	130,025	195,073	45%
Penn Power	26,316	66,577	92,893	72%
West Penn Power	77,440	168,480	245,920	49%

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

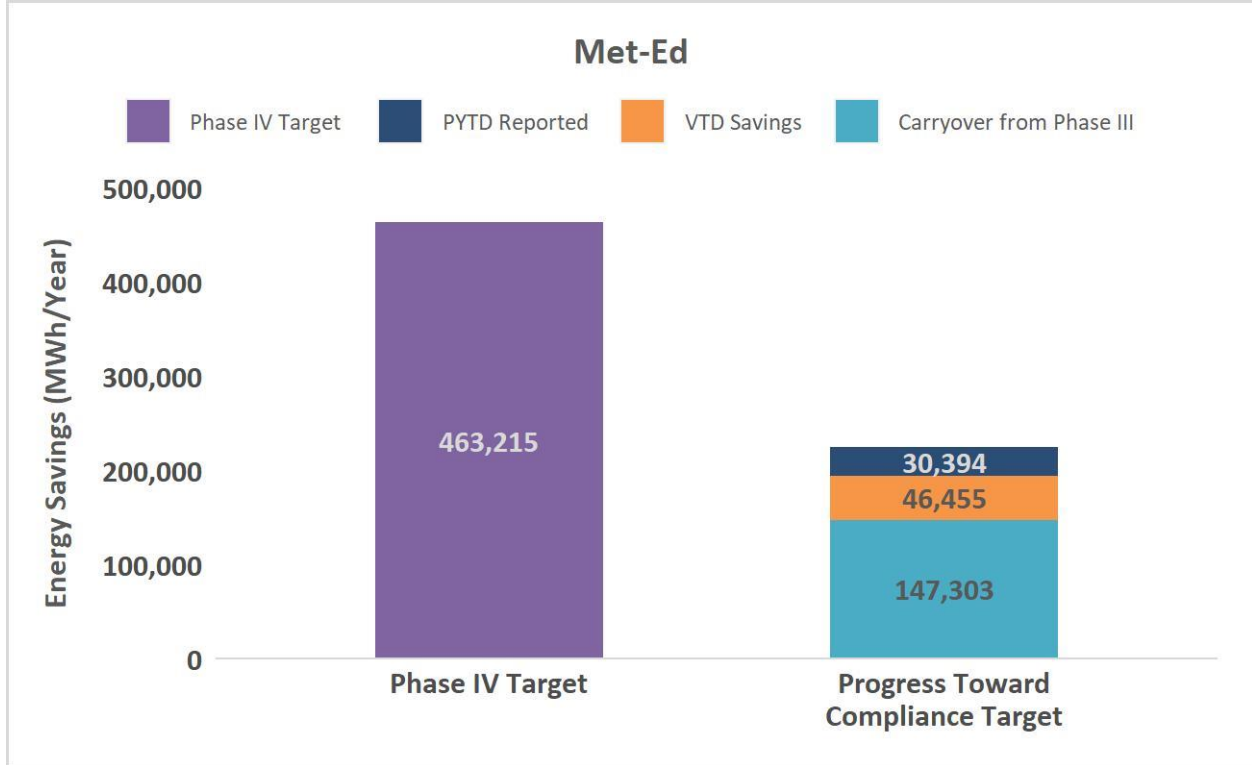


Figure 2B: Performance toward Phase IV Portfolio Energy Savings Target – Penelec

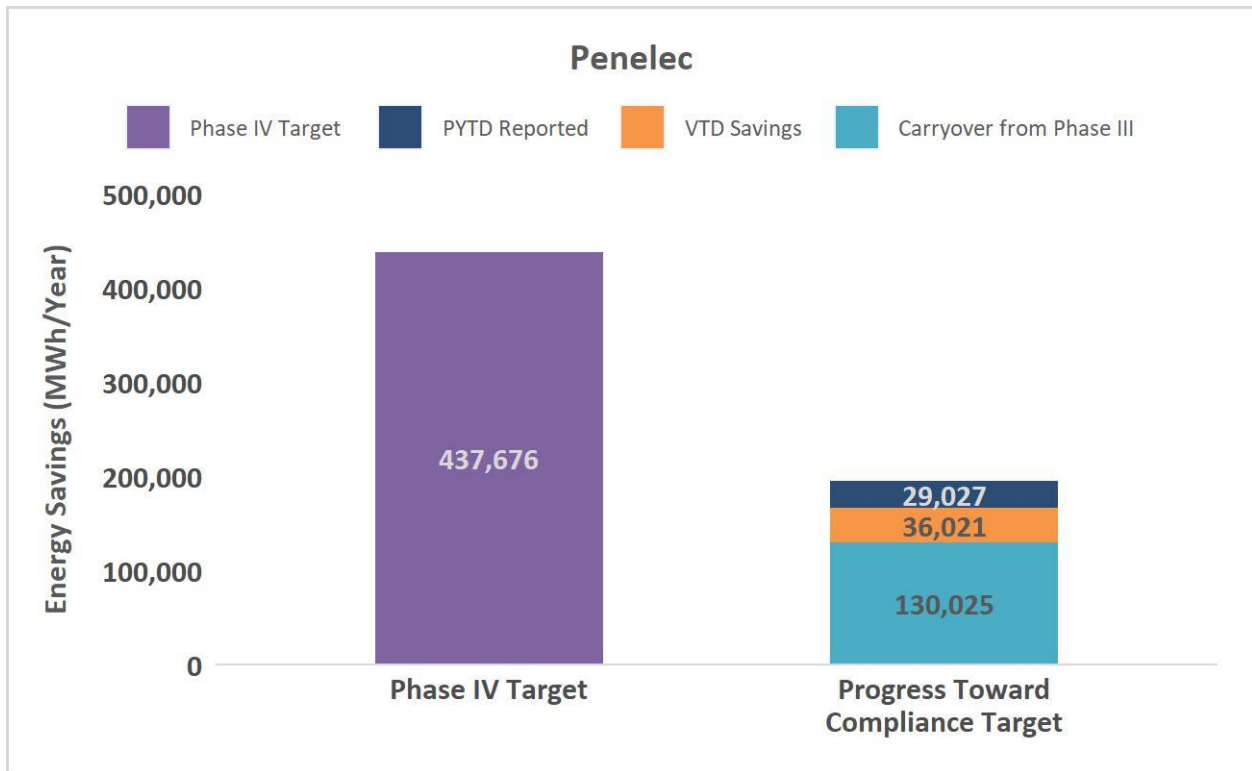


Figure 2C: Performance toward Phase IV Portfolio Energy Savings Target – Penn Power

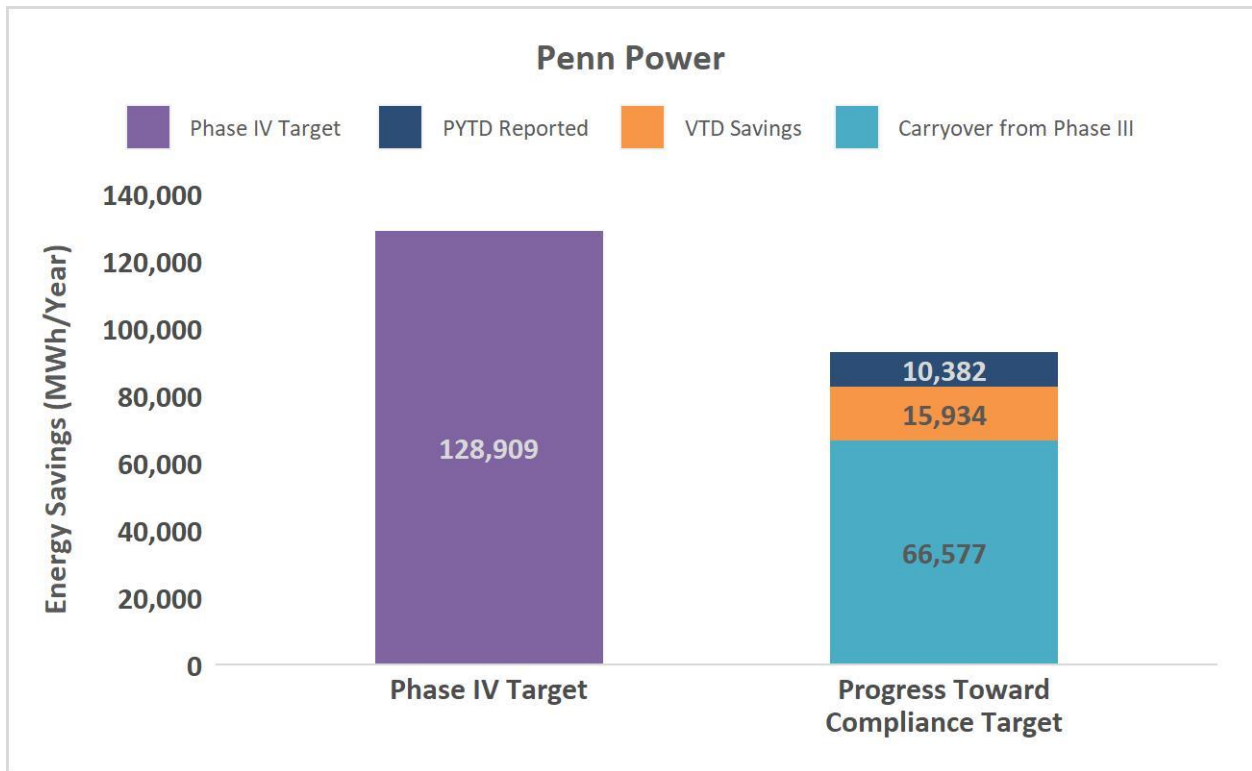
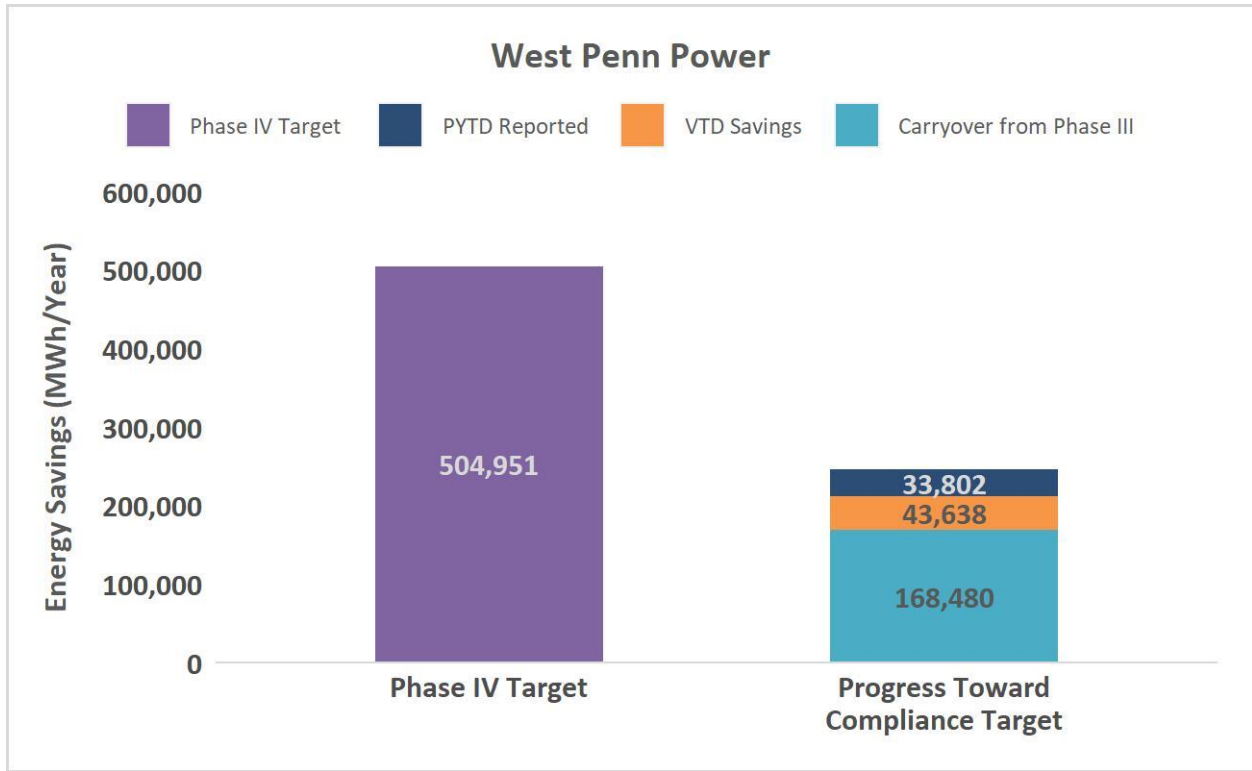


Figure 2D: Performance toward Phase IV Portfolio Energy Savings Target – West Penn Power



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

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

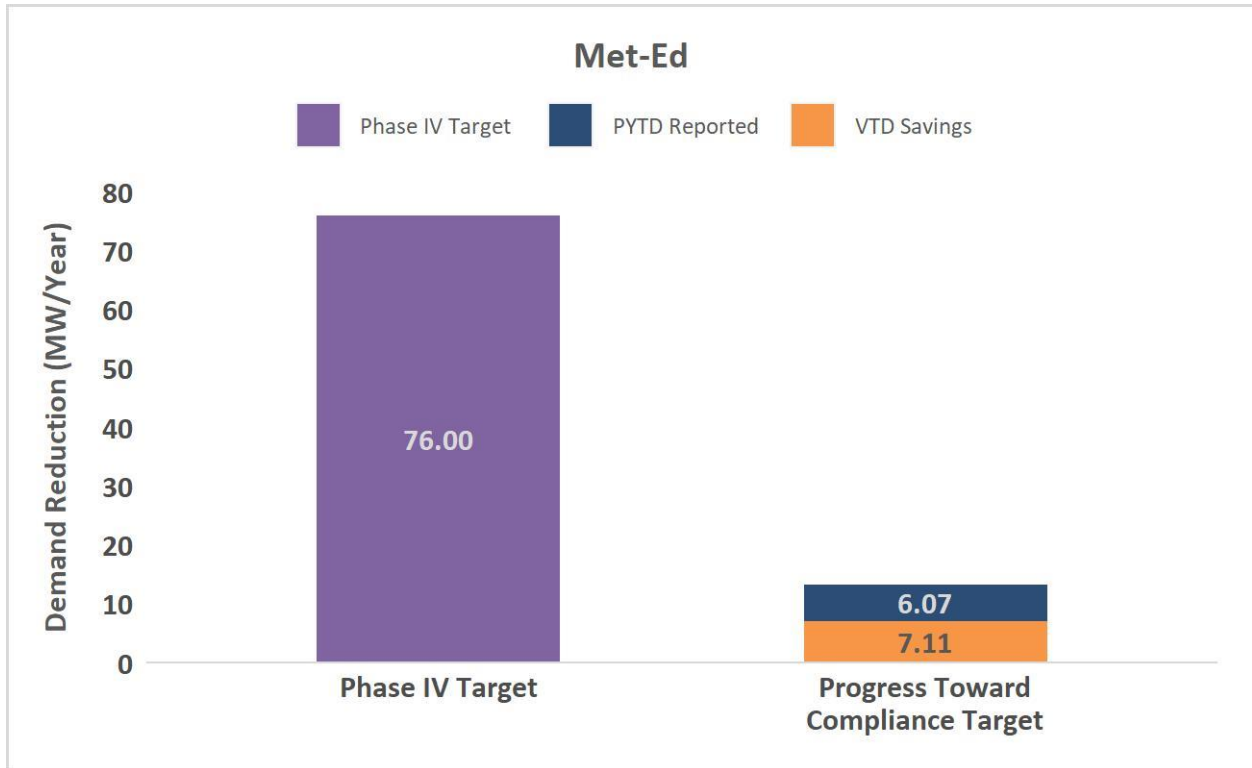


Figure 3B: Performance toward Phase IV Portfolio Peak Demand Target – Penelec

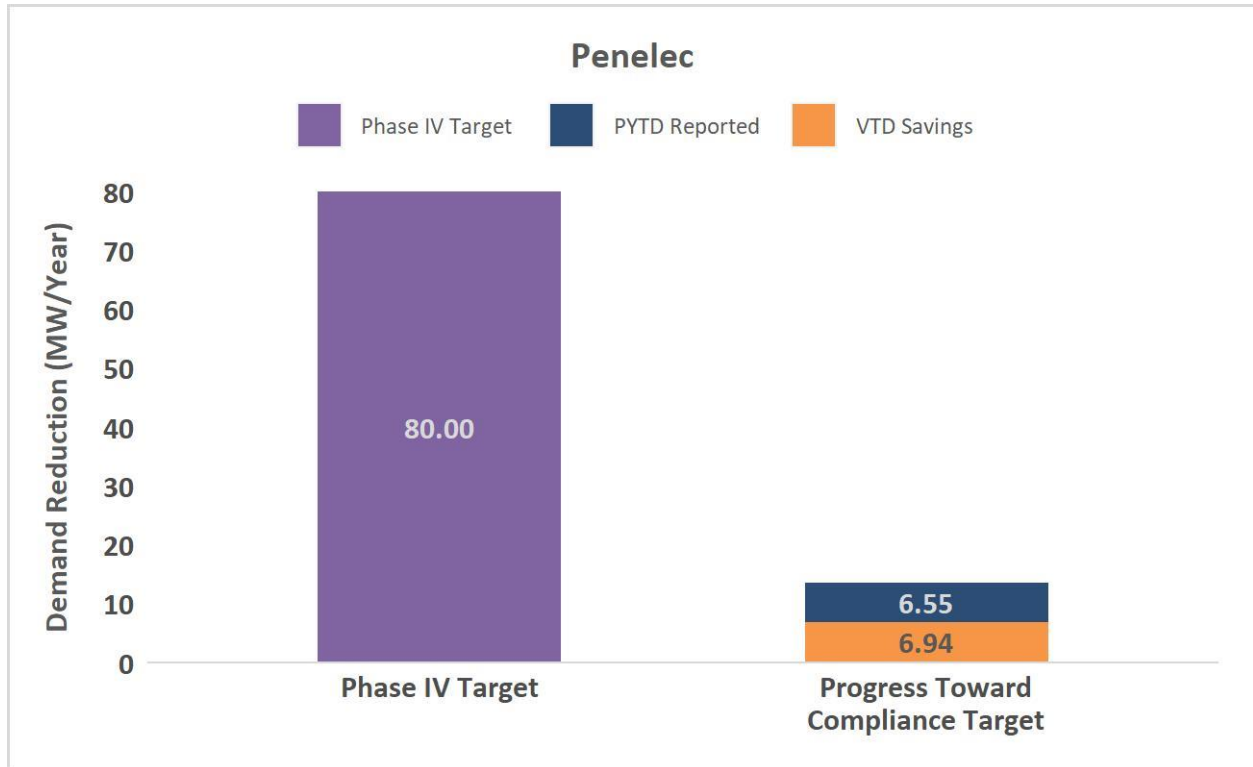


Figure 3C: Performance toward Phase IV Portfolio Peak Demand Target – Penn Power

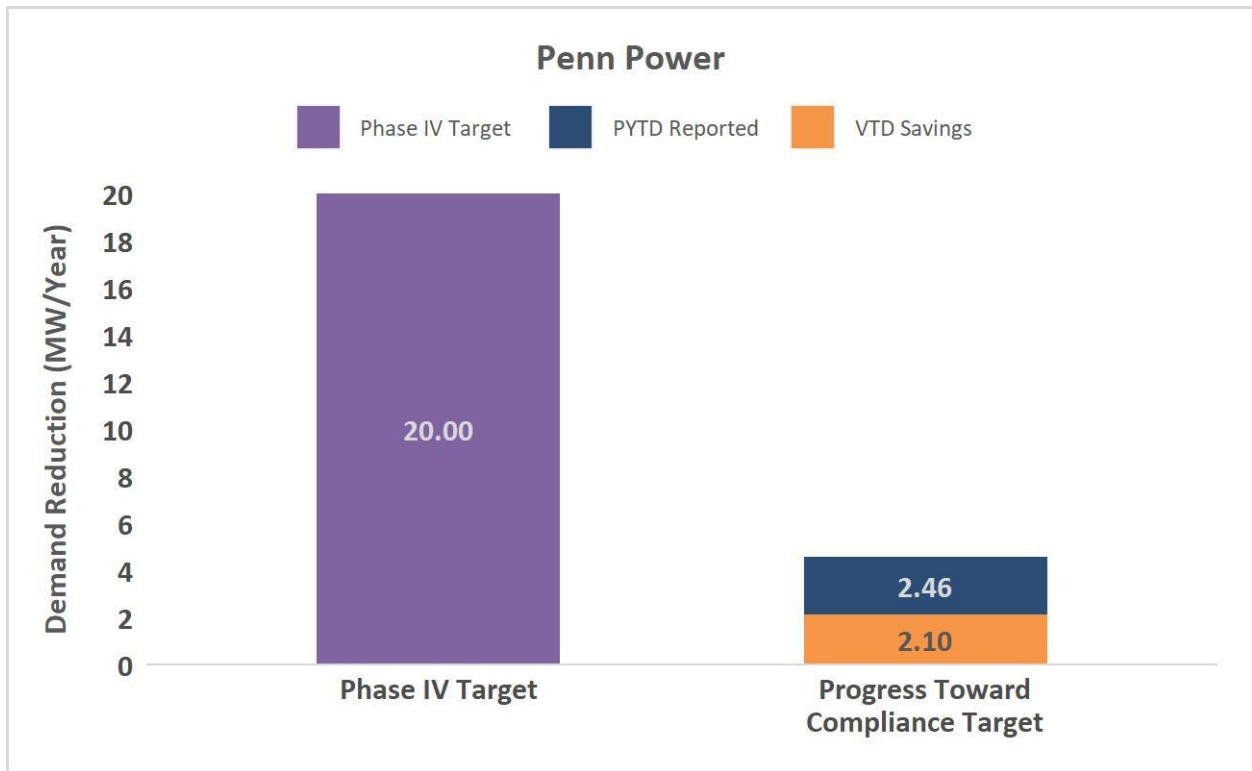
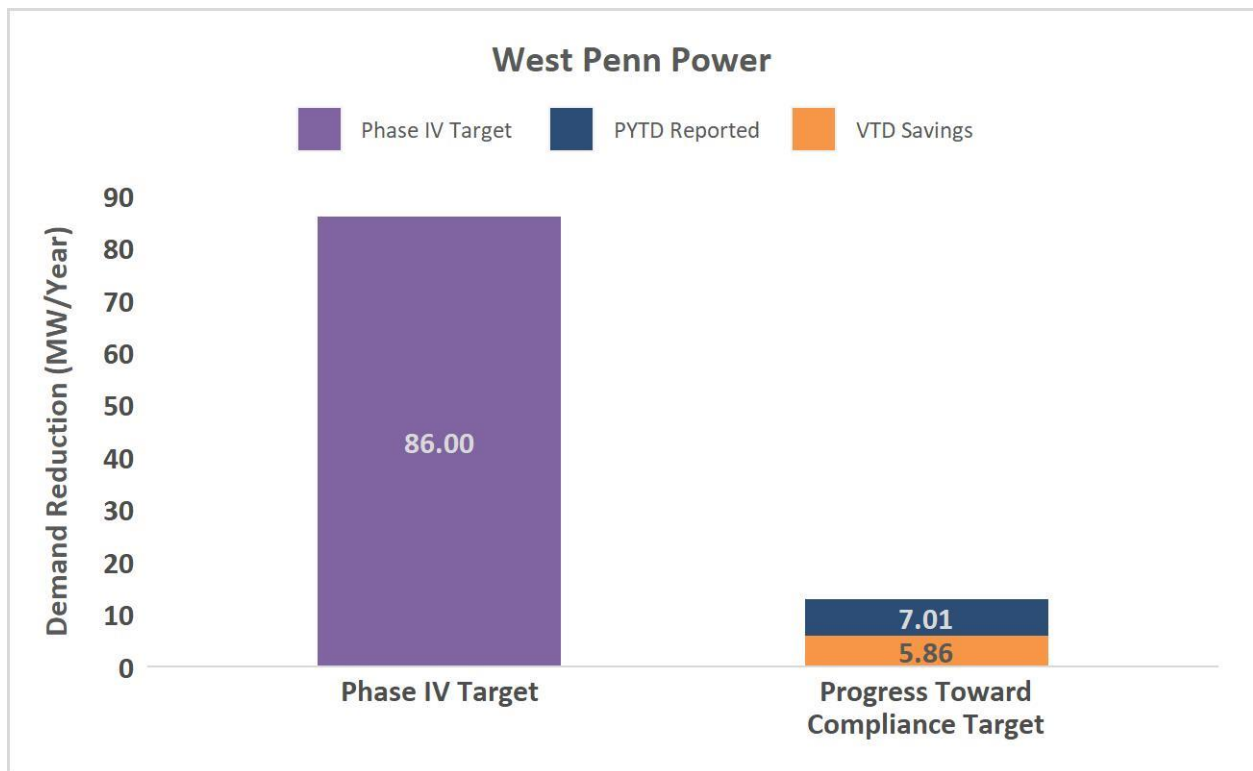


Figure 3D: Performance toward Phase IV Portfolio Peak Demand Target – West Penn Power

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 1-5 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 1-5 presents the percent achievement of each EDC's Phase IV low-income energy savings target.

Table 1-5: Low-Income Program Energy Savings and Targets

EDC	Low-Income Target (MWh/yr)	PSA + CO (MWh/yr)	% of Low-Income Savings Target Achieved
Met-Ed	26,866	15,758	59%
Penelec	25,385	18,685	74%
Penn Power	7,477	6,015	80%
West Penn Power	29,287	17,980	61%

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

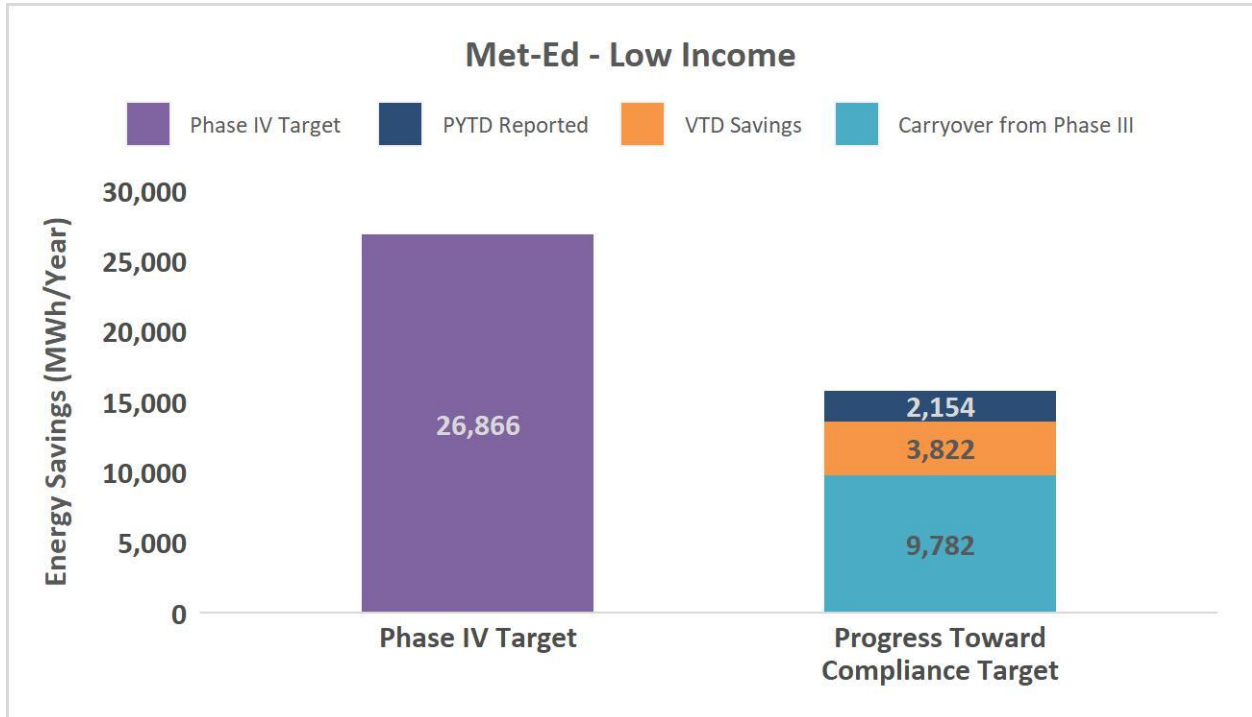


Figure 4B: EE&C Plan Performance Toward Phase IV Low-Income Compliance Target – Penelec

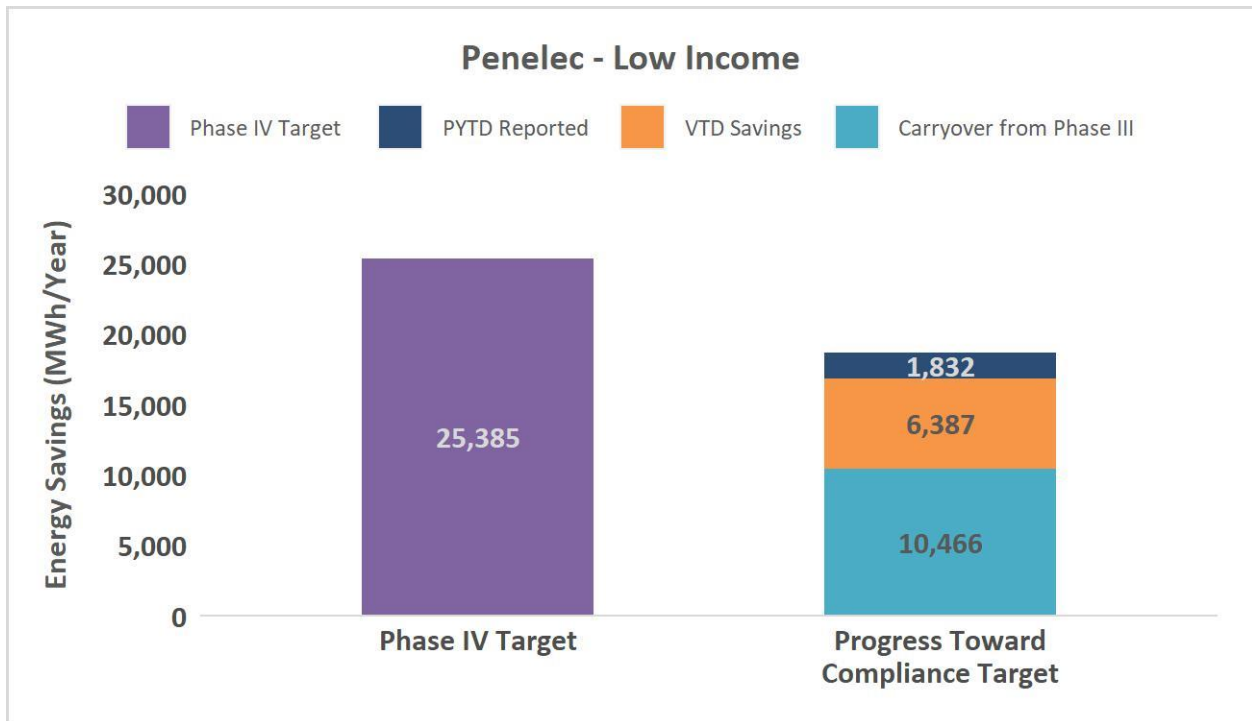
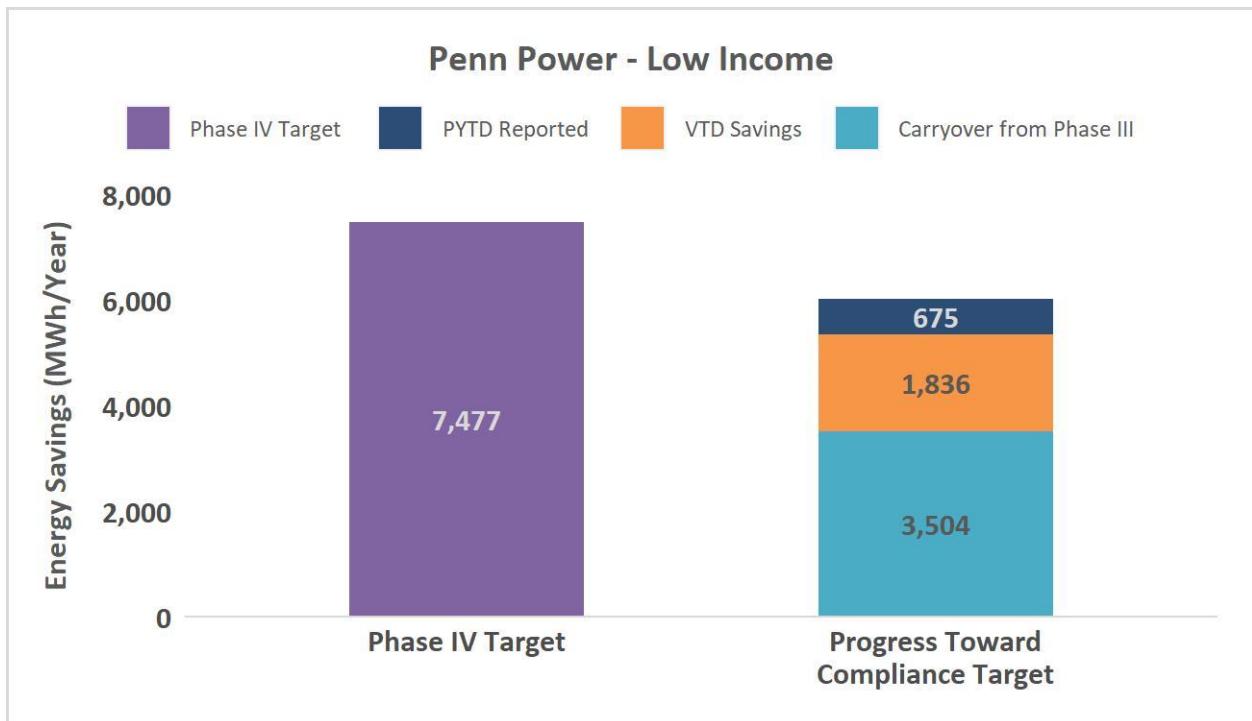
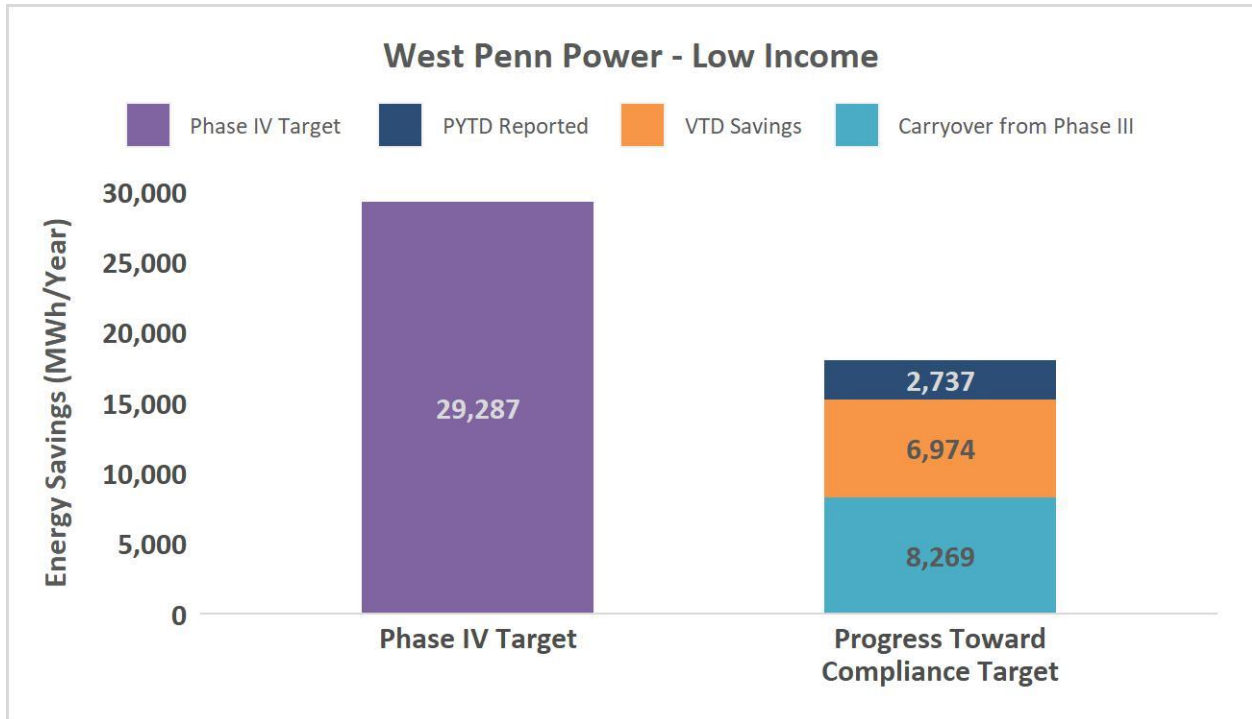


Figure 4C: EE&C Plan Performance Toward Phase IV Low-Income Compliance Target – Penn Power



**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 1-6 presents the participation, savings, and spending by customer sector for PY14. 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 1-6.

Table 1-6: PY14 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	116,395	27,471	209	84	22
	PYRTD MWh/yr	16,037	2,154	7,096	4,772	335
	PYRTD MW/yr	3.5	0.3	1.2	0.9	0.1
	Incentives (\$1000)	\$2,800.63	\$722.90	\$916.80	\$266.24	\$43.74
Penelec	# participants	116,621	14,752	449	57	9
	PYRTD MWh/yr	14,533	1,832	8,497	3,866	299
	PYRTD MW/yr	3.7	0.3	1.8	0.7	0.1
	Incentives (\$1000)	\$2,215.81	\$799.81	\$1,920.22	-\$122.83	\$38.85
Penn Power	# participants	35,145	6,792	94	11	7
	PYRTD MWh/yr	5,450	675	2,532	851	874
	PYRTD MW/yr	1.3	0.1	0.6	0.1	0.2
	Incentives (\$1000)	\$835.29	\$224.09	\$470.65	\$47.79	\$130.79
West Penn Power	# participants	132,913	14,972	445	65	2
	PYRTD MWh/yr	14,134	2,737	12,514	4,336	81
	PYRTD MW/yr	3.3	0.5	2.3	0.9	0.0
	Incentives (\$1000)	\$2,479.15	\$1,079.18	\$1,971.11	\$0.00	\$4.06

Table 1-7 summarizes plan performance by sector since the beginning of Phase IV.

Table 1-7: 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	194,459	39,953	346	99	44
	PSA MWh/yr	36,006	5,916	11,696	21,870	1,361
	PSA MW	6.9	0.8	2.0	3.3	0.2
	Incentives (\$1000)	\$6,271.02	\$1,711.73	\$1,284.89	\$884.61	\$266.94
Penelec	# participants	196,059	33,548	607	70	18
	PSA MWh/yr	29,171	7,774	21,700	5,748	656
	PSA MW	5.9	1.0	5.5	1.0	0.1
	Incentives (\$1000)	\$4,356.10	\$2,303.60	\$2,783.39	\$448.66	\$64.07
Penn Power	# participants	56,673	11,630	149	18	14
	PSA MWh/yr	11,165	2,391	3,617	8,117	1,025
	PSA MW	2.3	0.3	0.8	1.0	0.2
	Incentives (\$1000)	\$1,790.73	\$634.05	\$707.38	\$504.01	\$137.71
West Penn Power	# participants	211,163	28,710	616	77	5
	PSA MWh/yr	33,779	8,554	19,376	15,579	152
	PSA MW	6.3	1.0	3.4	2.1	0.0
	Incentives (\$1000)	\$5,599.94	\$2,122.84	\$3,679.50	\$963.14	\$8.52

Section 2 Updates and Findings

3.1 IMPLEMENTATION UPDATES AND FINDINGS

Implementation updates and findings through the first half of PY14 are as follows:

Energy Efficient Products Program

- **Appliance Recycling:** This subprogram is implemented by ARCA Inc. The Companies offered an increased incentive to customers scheduling a room air conditioner to be recycled in the month of October. During the promotional period, customers received \$50 (increased from \$25) for recycling a room air conditioner and were able to have the unit picked up without the requirement of recycling a qualifying refrigerator or freezer. The Companies also expanded the Appliance Recycling subprogram by introducing a component that targets secondhand appliance retailers. This provides secondhand appliance retailers the opportunity to participate in the subprogram and recycle bulk units, preventing them from returning to the grid. In the first half of PY14, secondhand retailers located in the West Penn Power operating area recycled 250 refrigerators. The Appliance Recycling subprogram has been marketed through a variety of consumer-focused media including bill inserts, e-mail, 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.
- **Appliances:** This subprogram is implemented by Franklin Energy. This program offers instant discounts and/or mail-in rebates to customers for the purchase of ENERGY STAR-certified appliances. Room air conditioners and dehumidifiers are the appliances most rebated through this program. The Appliance Rebates subprogram is marketed through a variety of consumer-focused media including bill inserts, e-mails, Facebook ads, through the Behavioral Home Energy Reports, the Online Audit tool, and at approximately 250 retailers throughout the Company's service territory. This program was also cross promoted through participation at several Appliance Recycling subprogram events at major retailer locations across the EDCs, which resulted in record high sales of energy efficient room air conditioners and dehumidifiers. Enhancements to the program website were also launched over the past year to simplify and streamline the "find a rebate" search and submittal functionality, eligibility requirements and add educational links to the ENERGY STAR® product detail pages to enhance the customer experience.
- **HVAC:** This subprogram is implemented by Franklin Energy and offers rebates for the purchase of high-efficiency HVAC equipment. The program continues to progress well during the first half of PY14 with activity from HVAC contractors across the EDCs. The rebate submission process continues to offer flexibility for customers to submit applications by mail or email and allows for contractors to submit through an online portal on behalf of customers. A tune-up bonus program for HVAC contractors was also

launched during the peak cooling season to increase contractor participation in the program.

Energy Efficient Homes Program

- **Behavioral:** This subprogram is implemented by Oracle. The Home Energy Reports sent in the first half of the program year included detailed messaging and promotions for summer savings tips, the dehumidifier instant rebate, Comprehensive Audits program, Appliance Recycling program and smart thermostat rebates.
- **Comprehensive Audit:** This subprogram is implemented by CLEAResult and continues to gain momentum. During the first part of the program year, the program has been focused on marketing intended to raise awareness of the program through email blasts sent weekly and quarterly company bill inserts.
- **New Homes:** The New Homes subprogram is implemented by Performance Systems Development (PSD). The program continues outreach to re-enroll builders and raters in the program for the current phase. There are currently 97 builders and 18 raters enrolled in the program.
- **School Kits:** This subprogram is implemented by AM Conservation Group. The program provides energy efficiency education and awareness through a classroom-based education program for grades K-5. Each student receives low cost direct-install items that customers can install by themselves.
- **Energy Efficiency Kits:** The Kits subprogram is implemented by AM Conservation Group. The program is fully operational for Phase IV and targets new residents within the Companies' service territories. Customers may also opt-in to the program by phone or website by providing their account number.
- **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. The Companies offer additional incentives to customers identified as low-income on purchases of select energy efficient appliances. During the first half of PY14, The Company participated in outreach events through retailers, senior events, and home shows to discuss the benefits of the program. Enhancements to the program website were also launched over the past year to simplify and streamline the "find a rebate" search and submittal functionality, eligibility requirements and to add educational links to the ENERGY STAR® product detail pages to enhance the customer experience for income eligible customers.

- **New Homes:** The low-income New Homes subprogram is also implemented by Performance Systems Development (PSD). Raters have submitted low-income projects for Met Ed and West Penn Power in the first half of PY14.
- **School Kits:** This low-income School Kits subprogram is implemented by AM Conservation Group. The program provides energy efficiency education and awareness through a classroom-based education program for grades K-5. Each student receives low cost direct-install items that customers can install by themselves. The Company offers additional measures in each kit for schools identified as low income.
- **Energy Efficiency Kits:** The low-income Energy Efficiency Kits subprogram is implemented by AM Conservation Group. The program is fully operational for Phase IV and targets new residents within the Companies' service territories. Customers may also opt-in to the program by phone or website by providing their account number. The Company offers additional items for installation in each kit for those identified as low income.
- **Weatherization:** This subprogram, which is a combination of WARM Plus, implemented by CLEARResult, and WARM Extra Measures, implemented by FirstEnergy's Human Service Department, is progressing well through the first half of PY14. Procedures were updated for WARM Plus to allow subcontractors the ability to install air source heat pumps and central air conditioners in locations where they were previously unable to by changing the parameters of when these measures could be installed in a home.
- **Residential and SCI Multifamily:** This subprogram is implemented by CLEARResult. FirstEnergy and CLEARResult met with various entities for outreach opportunities:
 - PA Housing Finance Agency Multifamily Affordable Housing Conference
 - Multifamily Housing Virtual Summit
 - PULP Stakeholders Meeting
 - Tetra Tech Benchmarking Meeting
 - Program hosts on-site pizza parties and door-to-door solicitation to aid in application collection.
 - Vendor implemented subcontractor referral bonus to entice subcontractors to develop leads.
- **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 if they are low-income customers. The Companies offered an increased incentive to customers scheduling a room air conditioner to be recycled in the month of October. During the promotional period, customers received \$75 (increased from \$35) for recycling a room air conditioner and were able to have the unit picked up without the requirement of recycling a qualifying refrigerator or freezer. This program continues to offer customers the option of an outside only, no-contact pickup process which adheres to proper social distancing practices.
- **Behavioral:** This subprogram is implemented by Oracle. 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 report sent in the first half of the program year also included detailed messaging and promotions for summer savings tips, the dehumidifier instant rebate, Comprehensive Audits program, Appliance Recycling program and smart thermostat rebates.

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

This subprogram is implemented by CLEAResult.

- Streamlined customer enrollment process:
 - Programs no longer require individual applications from residents in individually metered buildings. Instead, all building tenants are enrolled and can opt out if they choose.
 - Landlord agreement is same as income-qualified programs.
- Outreach/Marketing:
 - Mailed flyers to properties in FirstEnergy territory,
 - Public outreach at various community day events throughout summer,
 - Berks Community Television (BCTv) - Green Building interview with Program vendor discussing energy efficiency for the multifamily sector
 - Residential bill inserts scheduled quarterly beginning November 2022.

C/I Efficient Solutions for Business – Small

This program is implemented by Franklin Energy and Willdan, who were introduced to customers and program allies through a series of e-Blasts at the start of Phase IV. The program is gaining momentum and has been marketed through a variety of activities which helped the Companies reach a wider audience and increase program participation.

- Coffee Breaks at various locations/dates for program allies or customers to stop in and ask questions about the programs
- Meet and Greet for program allies - October 27 and November 17
- Online portal training webinars that targeted programs allies
- Table at events for customers to learn about the programs
 - Cambria Regional Economic Summit – November 10
 - Taste of Berks- November 18
- Chamber magazine blogs
- PA energy efficiency roundtables

To support the outreach efforts, the Companies leverage their internal resources – Customer Support, National Accounts, Economic Development, Area Managers, and Energy Efficiency Staff – to support the program and promote Act 129 portfolio of programs to assigned accounts or contacts.

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

C/I Efficient Solutions for Business – Large

This program is implemented by Franklin Energy and Willdan, who were introduced to customers and program allies through a series of e-Blasts at the start of Phase IV. The program is gaining momentum and has been marketed through a variety of activities which helped the Companies reach a wider audience and increase program participation.

- Coffee Breaks at various locations/dates for program allies or customers to stop in and ask questions about the programs
- Meet and Greet for program allies - October 27 and November 17
- Online portal training webinars that targeted programs allies
- Table at events for customers to learn about the programs
 - Cambria Regional Economic Summit – November 10
 - Taste of Berks- November 18
- Chamber magazine blogs
- PA energy efficiency roundtables

To support the outreach efforts, the Companies leverage their internal resources – Customer Support, National Accounts, Economic Development, Area Managers, and Energy Efficiency Staff – to support the program and promote Act 129 portfolio of programs to assigned accounts or contacts.

- **Prescriptive and Custom Sub-Programs:** These sub-programs are implemented by Franklin Energy and is fully operational for Phase IV.
- **Retro-commissioning , Building Tune-Up and Commercial New Construction Sub-Programs :** These sub-programs 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 PY14 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. The ADM team is currently revising the Evaluation Plan to accommodate a new Midstream Appliance Recycling program component in PY14.
- **Energy Efficient Products Program:** ADM is reviewing invoices and applications to support our desk review process in PY14. ADM is conducting participant surveys for gross impact evaluation. FirstEnergy and Duquesne evaluation teams collaborated to draft an evaluation protocol for the recently launched midstream appliance recycling program component. SWE reviewed an early draft protocol and provided feedback, which was incorporated into a second draft. ADM and Tetra Tech are adding this draft protocol to their PY14 Evaluation Plan. ADM is presently developing an interim measure protocol for Energy Star V9.0 televisions.
- **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 for PY14 has launched and participant surveys are underway. ADM and its subcontractor, EcoMetric, have conducted on-site visits for the New Homes program component. In December 2022, Tetra Tech finalized sampling plans for a participant survey of the Online Audits program component and interview guides for contractors in the Comprehensive Audits program component. Tetra Tech finalized similar documents for the Home Energy Reports program component in October 2022.
- **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. ADM has made initial data requests for documentation and site inspection results to be used in the PY14 program evaluation. In December, Tetra Tech finalized sampling plans and survey instruments for participant surveys to be conducted in PY14, and interview guides for trade allies in the WARM direct install program component.
- **C&I Energy Solutions for Business – Small and C&I Energy Solutions for Business – Large.** ADM has pulled an initial evaluation sample for nonresidential programs and has received project documentation from FirstEnergy. Data collection for impact evaluation is currently underway. ADM has developed and submitted to the SWE draft IMPs for Building Operator Certification Training and for Duct Sealing and Insulation, and is presently developing an IMP for Economizer Repair and Optimization. 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. In October 2022, Tetra Tech finalized interview guides for trade allies that participate in FirstEnergy's C&I Energy Efficiency Programs. Tetra Tech is presently developing samples for process and net impact evaluation of these programs for PY14.

Section 3 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 3-1A through Table 3-1D provides the current participation totals for PY14 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 number 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. In the new midstream component, each lot of 25 appliances removed from a second-hand retailer is recorded as a single participant.
 - **Appliances and Electronics:** the number 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 number of new energy efficient homes being built with EnergyStar standards or higher efficiency level than the current building code.
 - **Appliances and Electronics:** the number 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 3-1A to 4-1D: Phase IV 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	EE Kits	32,613	81,397
Energy Efficient Homes	Home Energy Reports	59,332	61,099
Energy Efficient Homes	Multifamily - Res	9	9
Energy Efficient Homes	New Homes	386	1,347
Energy Efficient Homes	Online Audits	1,780	7,448
Energy Efficient Homes	Residential Audit and DI	211	253
Energy Efficient Products	Appliance Recycling	3,216	7,633
Energy Efficient Products	Residential Downstream Appliances	2,222	4,507
Energy Efficient Products	Residential Downstream HVAC	1,036	2,140
Energy Efficient Products	Residential Midstream Appliances	15,590	28,626
Low Income Energy Efficiency	Appliance Recycling	456	998
Low Income Energy Efficiency	EE Kits	4,457	13,562
Low Income Energy Efficiency	Home Energy Reports	21,748	23,072
Low Income Energy Efficiency	LI Direct Install	537	1,437
Low Income Energy Efficiency	New Homes	15	55
Low Income Energy Efficiency	Online Audits	137	599
Low Income Energy Efficiency	Residential Downstream Appliances	121	230
C&I Energy Solutions for Business - Small	Appliance Recycling	37	84
C&I Energy Solutions for Business - Small	CI Custom	0	6
C&I Energy Solutions for Business - Small	CI EMNC	51	94
C&I Energy Solutions for Business - Small	CI Multifamily	1	4
C&I Energy Solutions for Business - Small	CI Prescriptive	132	190
C&I Energy Solutions for Business - Large	CI Custom	1	3
C&I Energy Solutions for Business - Large	CI EMNC	9	9
C&I Energy Solutions for Business - Large	CI Prescriptive	84	99
Portfolio Total		144,181	234,901

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

Program	Component	PYTD Participation	P4TD Participation
Energy Efficient Homes	EE Kits	37,063	77,668
Energy Efficient Homes	Home Energy Reports	57,307	75,867
Energy Efficient Homes	Multifamily - Res	6	13
Energy Efficient Homes	New Homes	51	175
Energy Efficient Homes	Online Audits	1,305	4,977
Energy Efficient Homes	Residential Audit and DI	101	107
Energy Efficient Products	Appliance Recycling	2,495	5,656
Energy Efficient Products	Residential Downstream Appliances	1,411	2,918
Energy Efficient Products	Residential Downstream HVAC	702	1,155
Energy Efficient Products	Residential Midstream Appliances	16,180	27,523
Low Income Energy Efficiency	Appliance Recycling	492	1,082
Low Income Energy Efficiency	EE Kits	2,310	16,989
Low Income Energy Efficiency	Home Energy Reports	10,647	11,601
Low Income Energy Efficiency	LI Direct Install	951	2,748
Low Income Energy Efficiency	New Homes	0	9
Low Income Energy Efficiency	Online Audits	208	863
Low Income Energy Efficiency	Residential Downstream Appliances	144	256
C&I Energy Solutions for Business - Small	Appliance Recycling	28	72
C&I Energy Solutions for Business - Small	CI Custom	4	16
C&I Energy Solutions for Business - Small	CI EMNC	76	107
C&I Energy Solutions for Business - Small	CI Multifamily	10	22
C&I Energy Solutions for Business - Small	CI Prescriptive	340	407
C&I Energy Solutions for Business - Large	CI Custom	0	0
C&I Energy Solutions for Business - Large	CI EMNC	2	3
C&I Energy Solutions for Business - Large	CI Prescriptive	55	68
Portfolio Total		131,888	230,302

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

Program	Component	PYTD Participation	P4TD Participation
Energy Efficient Homes	EE Kits	9,537	21,529
Energy Efficient Homes	Home Energy Reports	17,402	18,116
Energy Efficient Homes	Multifamily - Res	0	0
Energy Efficient Homes	New Homes	314	720
Energy Efficient Homes	Online Audits	419	1,596
Energy Efficient Homes	Residential Audit and DI	67	98
Energy Efficient Products	Appliance Recycling	828	1,863
Energy Efficient Products	Residential Downstream Appliances	734	1,473
Energy Efficient Products	Residential Downstream HVAC	298	629
Energy Efficient Products	Residential Midstream Appliances	5,546	10,649
Low Income Energy Efficiency	Appliance Recycling	105	236
Low Income Energy Efficiency	EE Kits	292	3,814
Low Income Energy Efficiency	Home Energy Reports	5,984	6,410
Low Income Energy Efficiency	LI Direct Install	333	933
Low Income Energy Efficiency	New Homes	0	0
Low Income Energy Efficiency	Online Audits	37	167
Low Income Energy Efficiency	Residential Downstream Appliances	41	70
C&I Energy Solutions for Business - Small	Appliance Recycling	7	15
C&I Energy Solutions for Business - Small	CI Custom	1	2
C&I Energy Solutions for Business - Small	CI EMNC	38	53
C&I Energy Solutions for Business - Small	CI Multifamily	0	7
C&I Energy Solutions for Business - Small	CI Prescriptive	51	81
C&I Energy Solutions for Business - Large	CI Custom	0	2
C&I Energy Solutions for Business - Large	CI EMNC	4	4
C&I Energy Solutions for Business - Large	CI Prescriptive	11	17
Portfolio Total		42,049	68,484

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

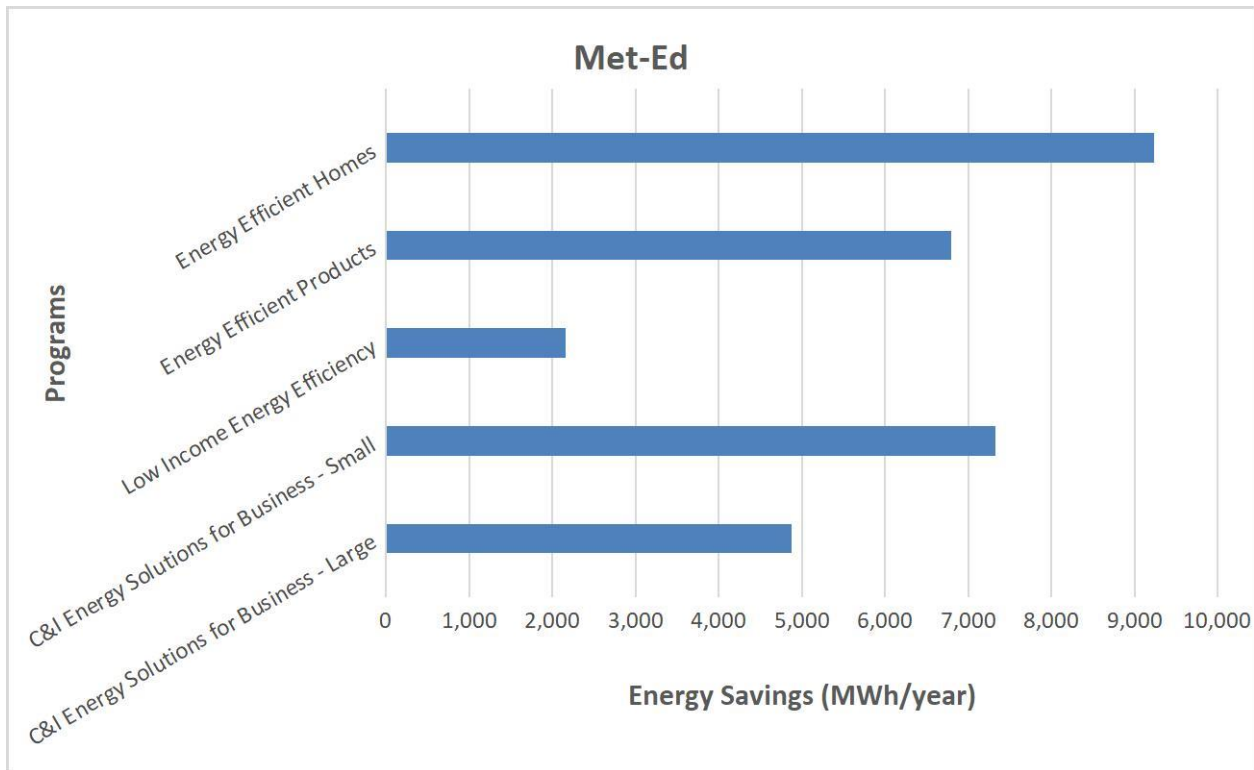
Program	Component	PYTD Participation	P4TD Participation
Energy Efficient Homes	EE Kits	31,029	84,439
Energy Efficient Homes	Home Energy Reports	78,695	80,245
Energy Efficient Homes	Multifamily - Res	54	58
Energy Efficient Homes	New Homes	537	1,345
Energy Efficient Homes	Online Audits	1,999	6,453
Energy Efficient Homes	Residential Audit and DI	163	211
Energy Efficient Products	Appliance Recycling	3,388	7,577
Energy Efficient Products	Residential Downstream Appliances	2,388	4,953
Energy Efficient Products	Residential Downstream HVAC	1,343	2,566
Energy Efficient Products	Residential Midstream Appliances	13,317	23,316
Low Income Energy Efficiency	Appliance Recycling	481	991
Low Income Energy Efficiency	EE Kits	4,611	14,978
Low Income Energy Efficiency	Home Energy Reports	8,626	9,664
Low Income Energy Efficiency	LI Direct Install	939	2,233
Low Income Energy Efficiency	New Homes	1	1
Low Income Energy Efficiency	Online Audits	161	532
Low Income Energy Efficiency	Residential Downstream Appliances	153	311
C&I Energy Solutions for Business - Small	Appliance Recycling	41	74
C&I Energy Solutions for Business - Small	CI Custom	6	9
C&I Energy Solutions for Business - Small	CI EMNC	105	132
C&I Energy Solutions for Business - Small	CI Multifamily	44	74
C&I Energy Solutions for Business - Small	CI Prescriptive	249	330
C&I Energy Solutions for Business - Large	CI Custom	0	4
C&I Energy Solutions for Business - Large	CI EMNC	2	3
C&I Energy Solutions for Business - Large	CI Prescriptive	65	72
Portfolio Total		148,397	240,571

Section 4 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 14. 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 Program³

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



³ 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

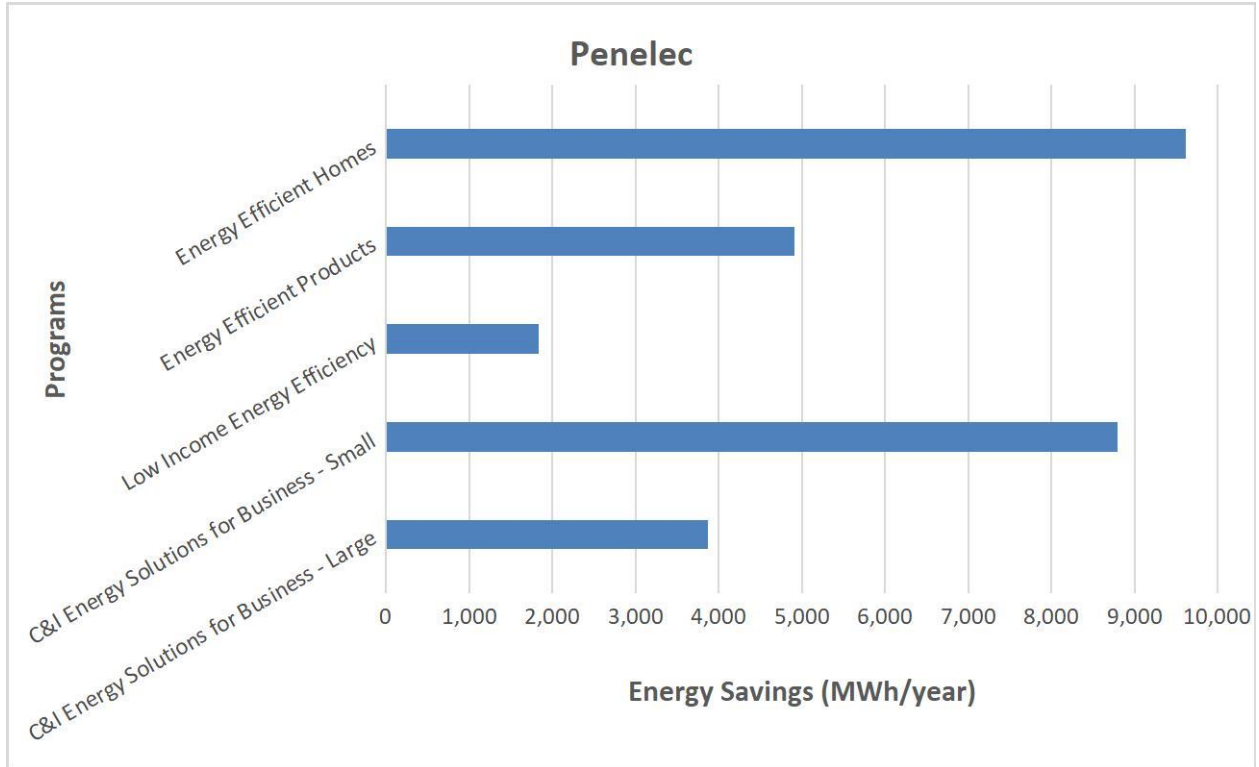


Figure 5C: PYTD Reported Gross Energy Savings by Program - Penn Power

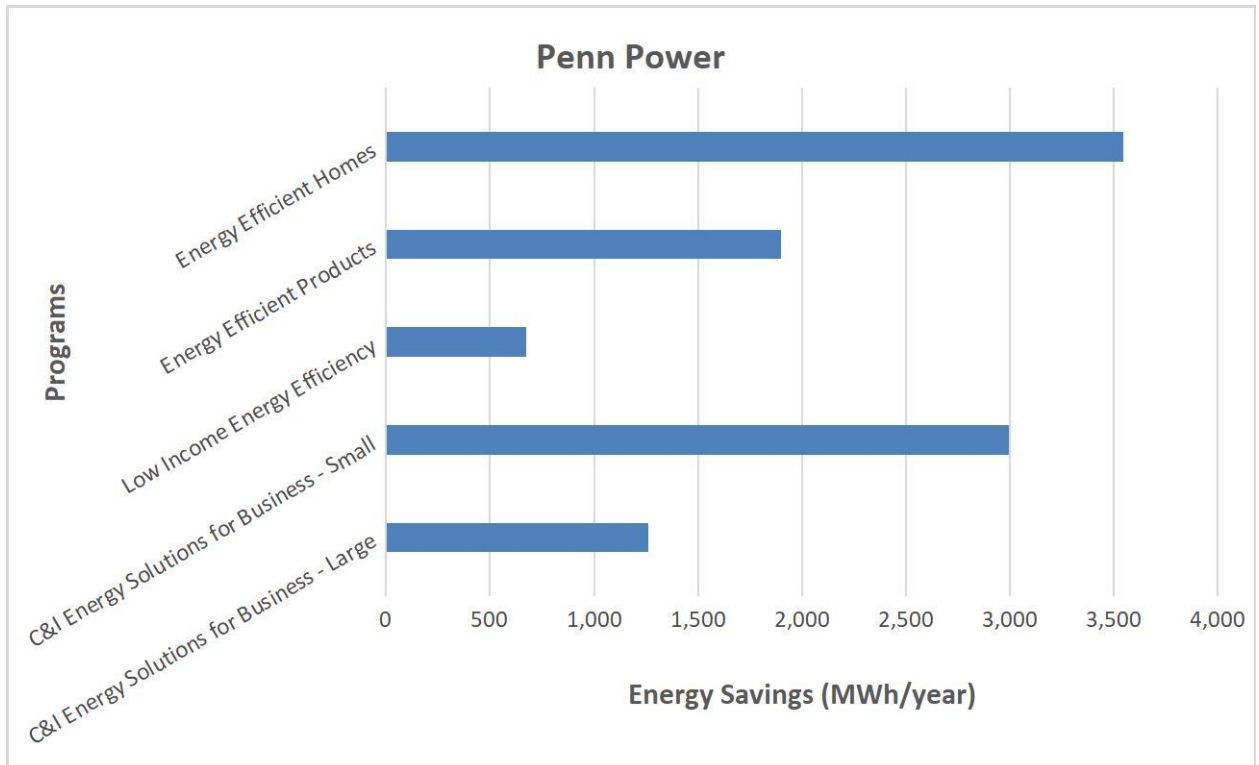
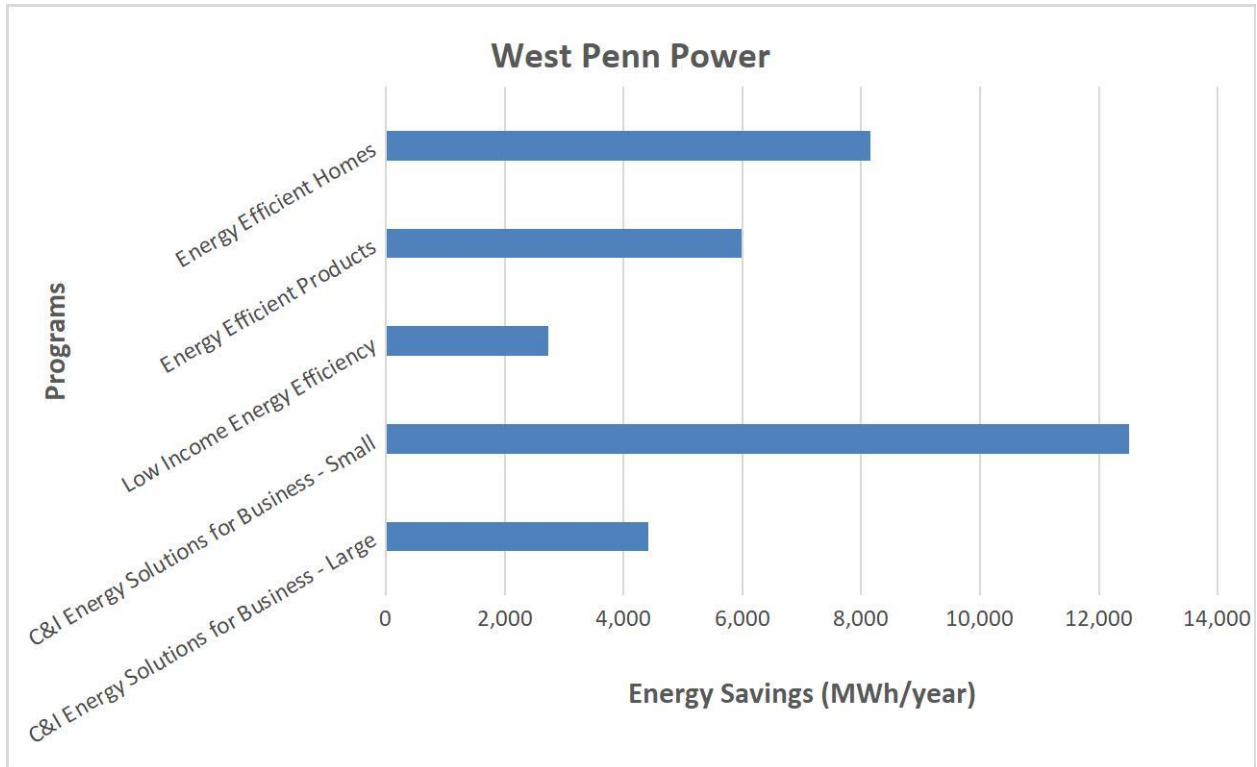
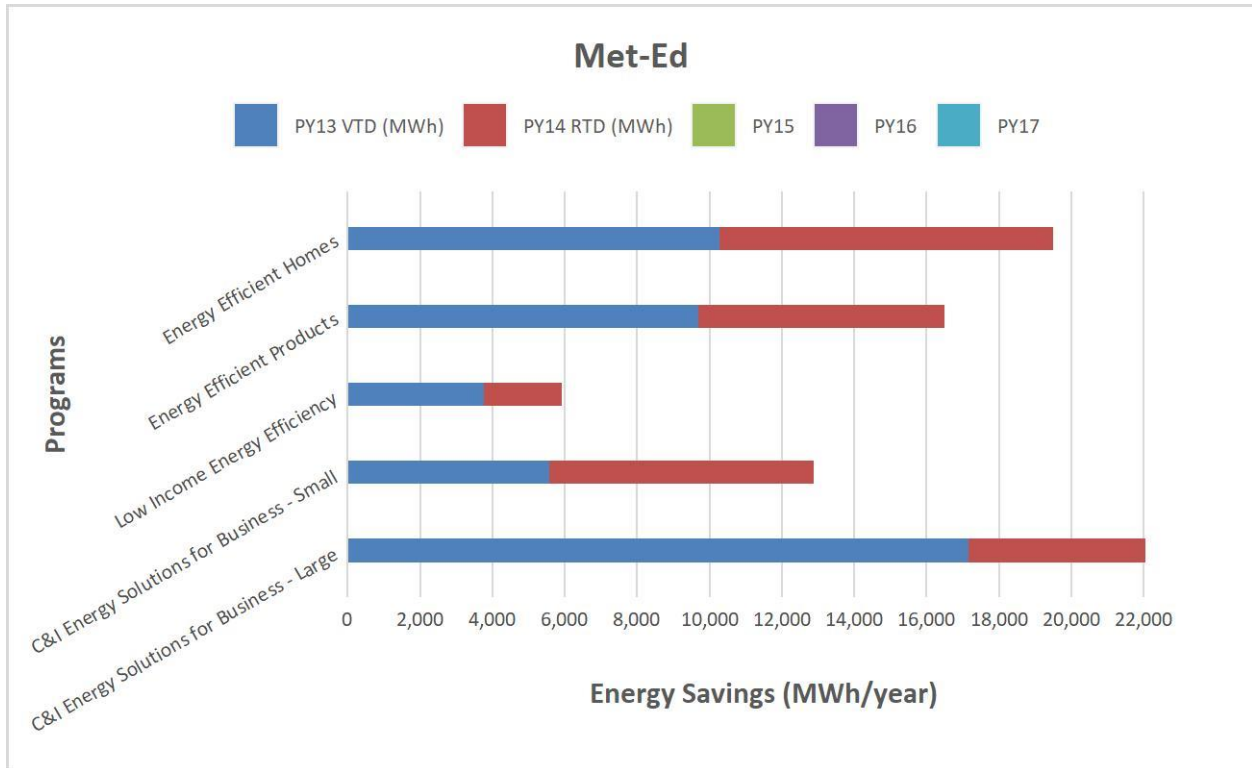


Figure 5D: PYTD Reported Gross Energy Savings by Program - West Penn Power

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 IV⁴

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



⁴ 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

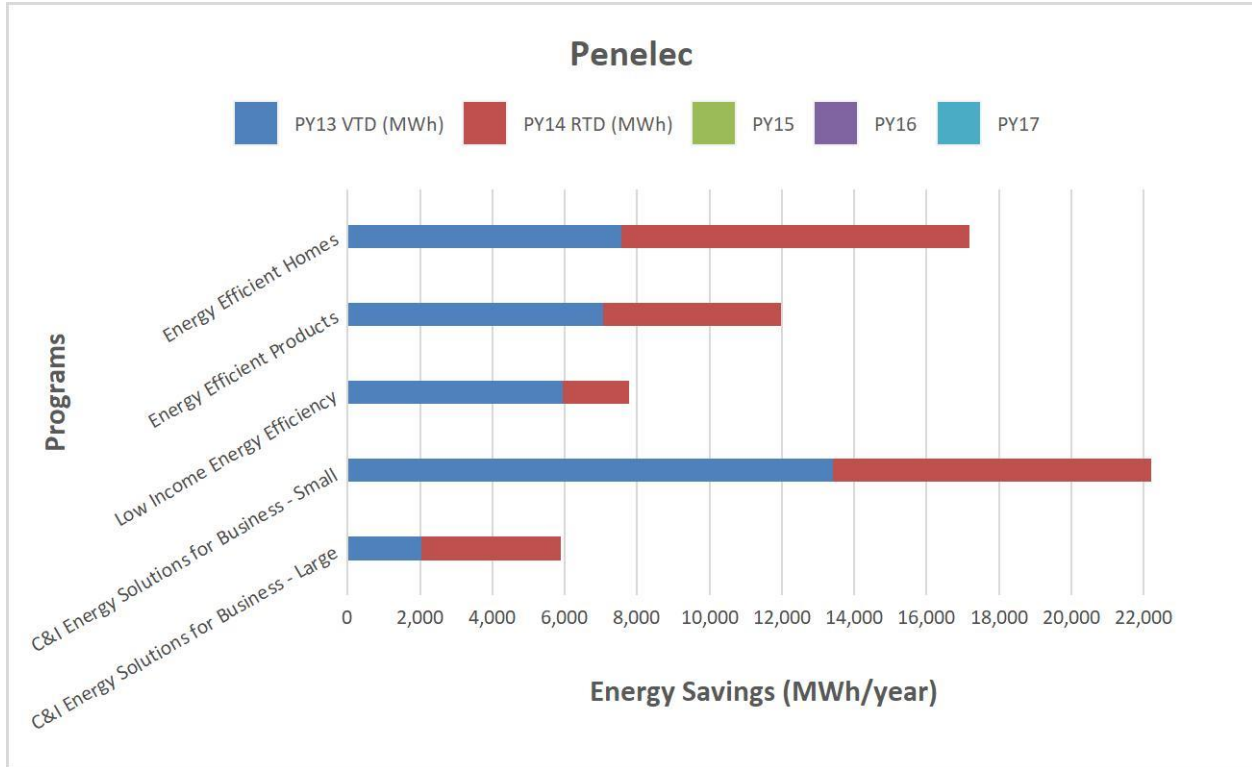


Figure 6C: PSA Energy Savings by Program for Phase IV - Penn Power

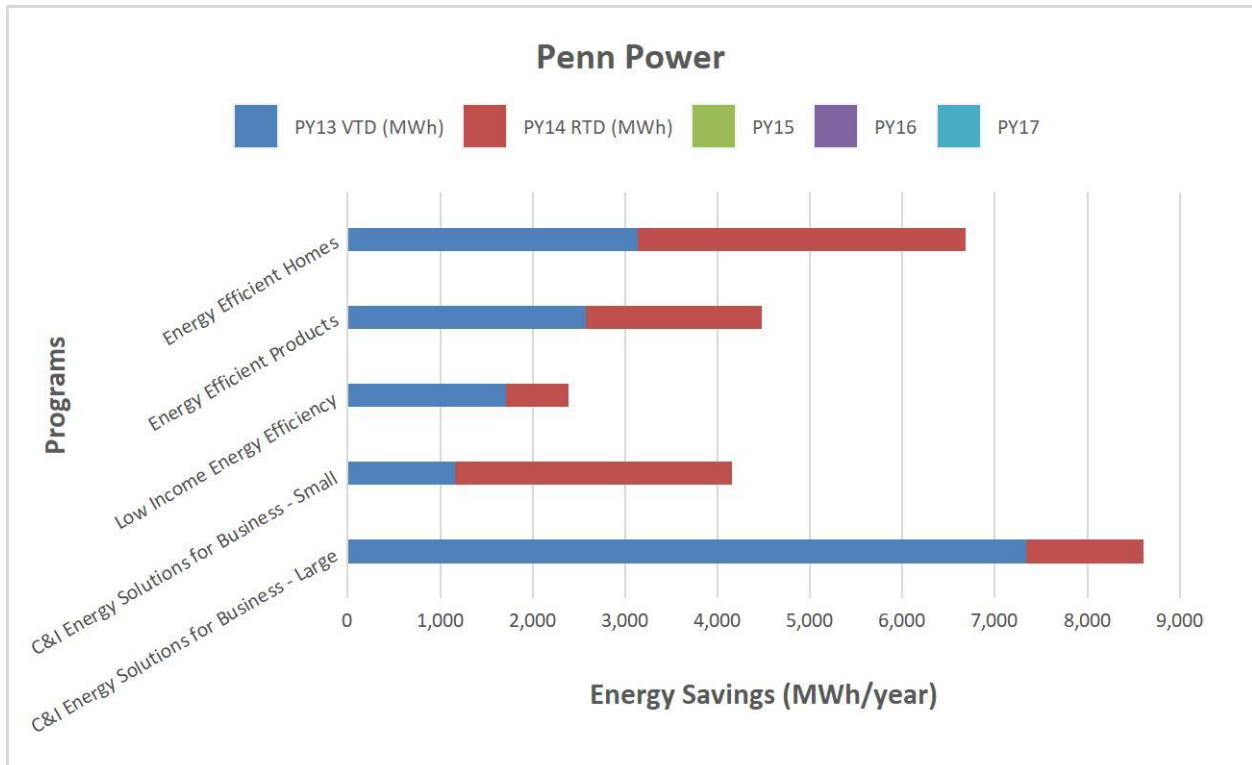


Figure 6D: PSA Energy Savings by Program for Phase IV - West Penn Power

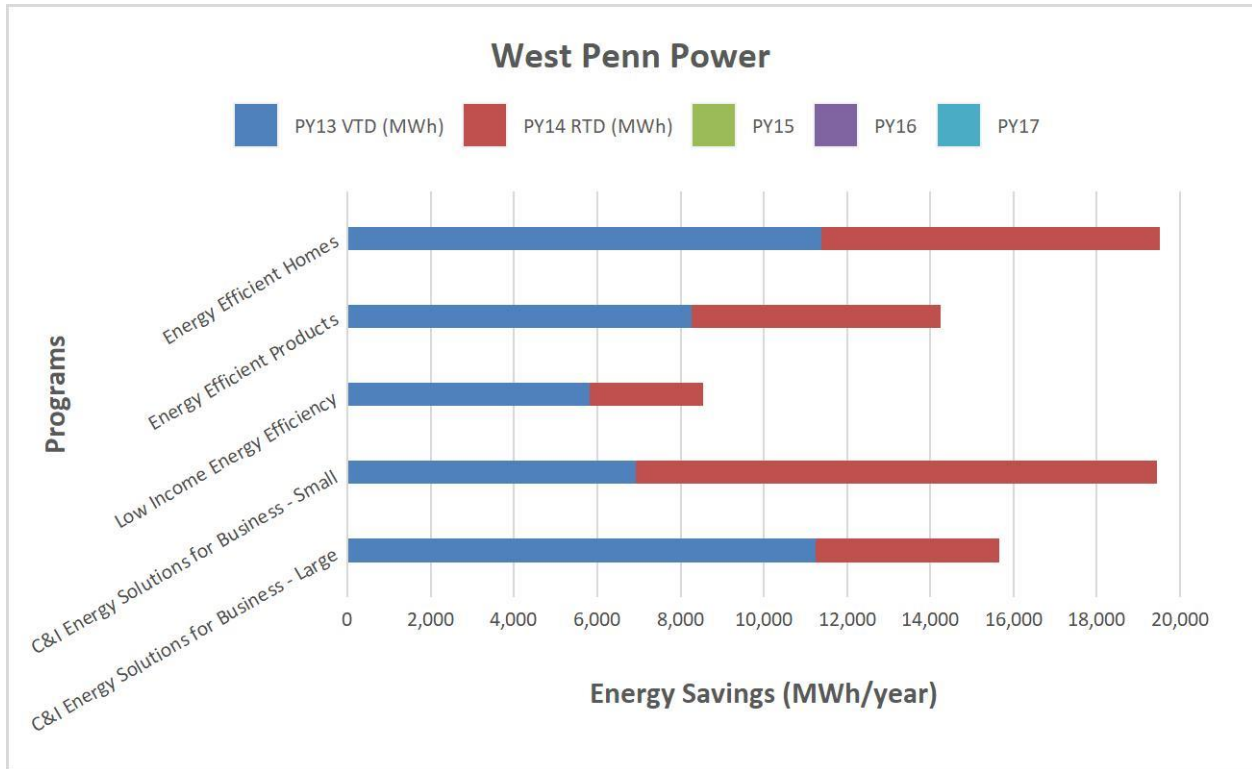


Table 4-1⁵ presents a summary of energy impacts by program through the current reporting period.

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

Table 4-1: Energy Savings by Program (MWh/Year)

Utility	Program	PYRTD	RTD	VTD	PSA
Met-Ed	Energy Efficient Homes	9,240	23,245	10,266	19,506
	Energy Efficient Products	6,797	16,095	9,703	16,500
	Low Income Energy Efficiency	2,154	6,214	3,762	5,916
	C&I Energy Solutions for Business - Small	7,328	12,571	5,562	12,890
	C&I Energy Solutions for Business - Large	4,876	21,455	17,162	22,037
	Portfolio Total	30,394	79,581	46,455	76,849
Penelec	Energy Efficient Homes	9,618	18,026	7,573	17,192
	Energy Efficient Products	4,915	11,398	7,064	11,979
	Low Income Energy Efficiency	1,832	7,752	5,942	7,774
	C&I Energy Solutions for Business - Small	8,796	22,624	13,407	22,202
	C&I Energy Solutions for Business - Large	3,866	6,015	2,035	5,901
	Portfolio Total	29,027	65,815	36,021	65,048
Penn Power	Energy Efficient Homes	3,548	7,461	3,135	6,683
	Energy Efficient Products	1,902	4,450	2,580	4,482
	Low Income Energy Efficiency	675	2,413	1,716	2,391
	C&I Energy Solutions for Business - Small	2,994	4,144	1,162	4,156
	C&I Energy Solutions for Business - Large	1,263	8,556	7,340	8,603
	Portfolio Total	10,382	27,024	15,934	26,316
West Penn Power	Energy Efficient Homes	8,147	22,831	11,375	19,522
	Energy Efficient Products	5,987	13,780	8,270	14,257
	Low Income Energy Efficiency	2,737	8,135	5,817	8,554
	C&I Energy Solutions for Business - Small	12,514	19,783	6,933	19,447
	C&I Energy Solutions for Business - Large	4,417	15,611	11,243	15,660
	Portfolio Total	33,802	80,140	43,638	77,440

Section 5 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 5-1.

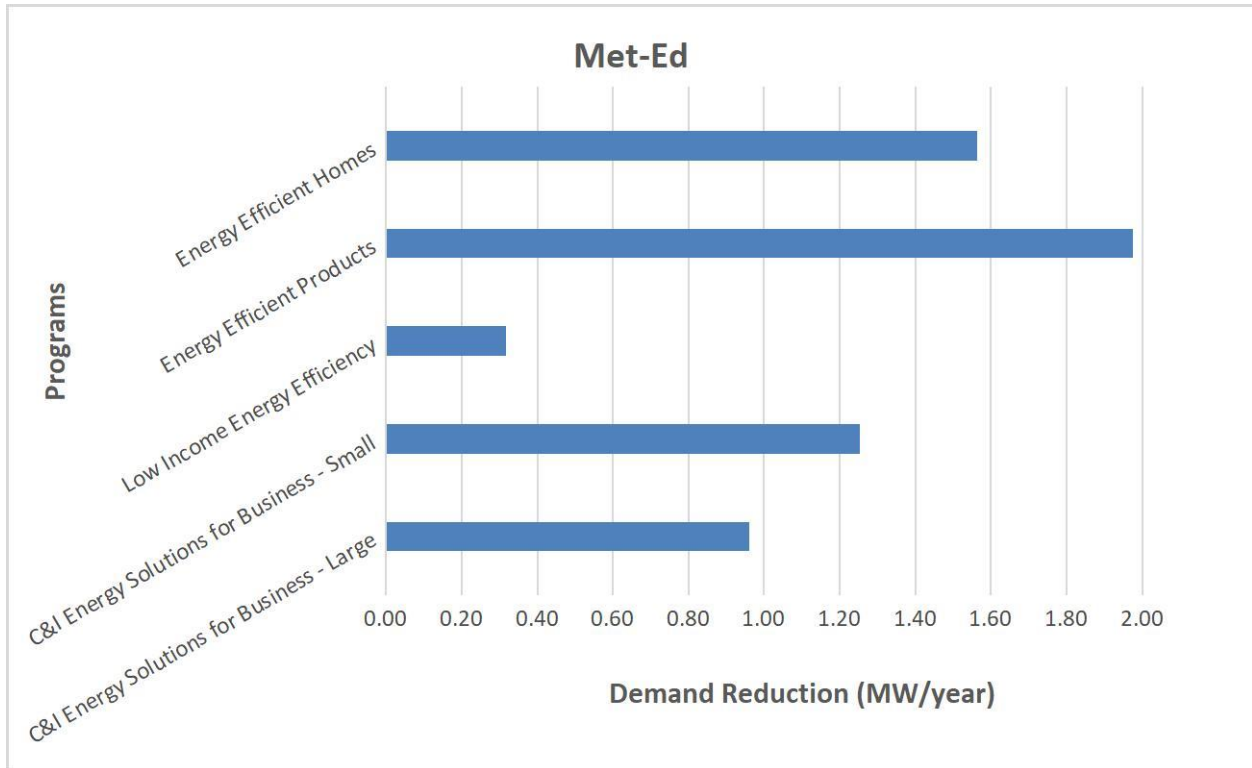
Table 5-1: Line Loss Factors by EDC

EDC	Residential	Small C&I	Large C&I
Met-Ed	1.0945	1.0720	1.0720
Penelec	1.0945	1.0720	1.0720
Penn Power	1.0949	1.0545	1.0545
West Penn Power	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 14.

Figures 7A-7D: PYRTD Gross Peak Demand Reduction by Program⁶

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



⁶ 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

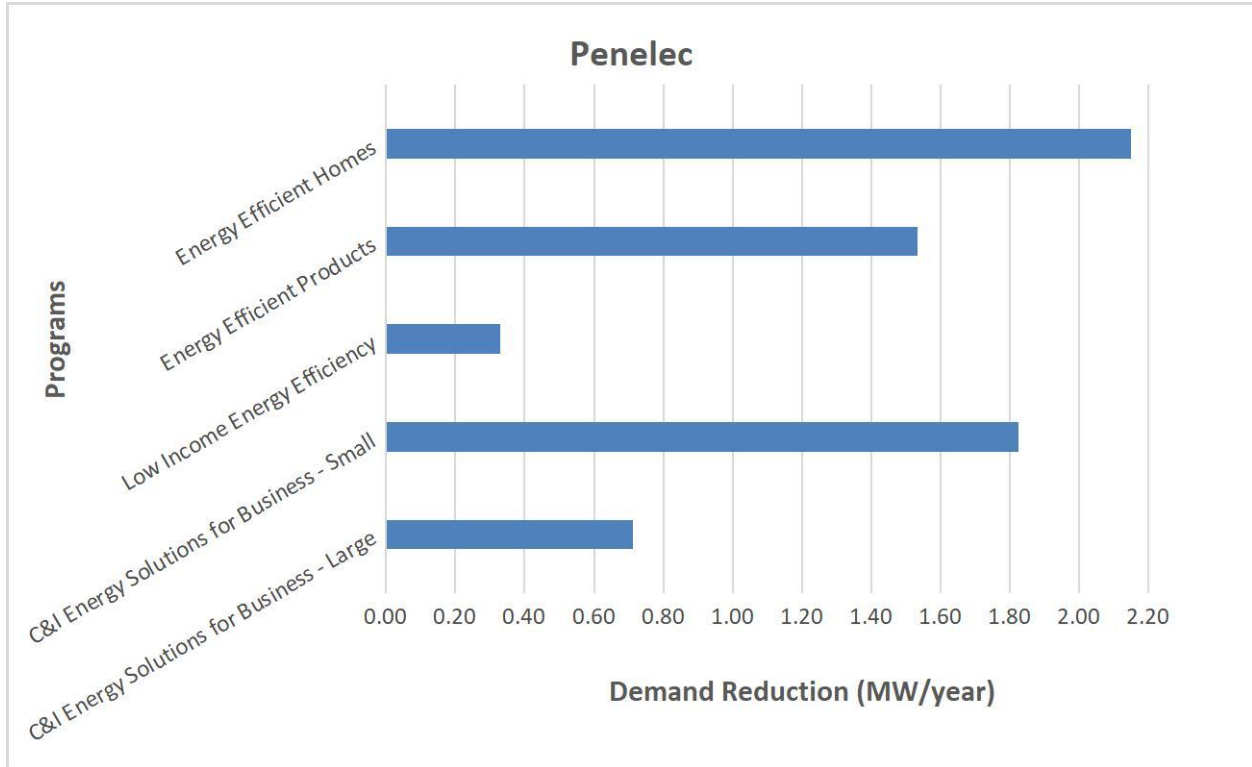


Figure 7C: PYRTD Gross Peak Demand Reduction by Program - Penn Power

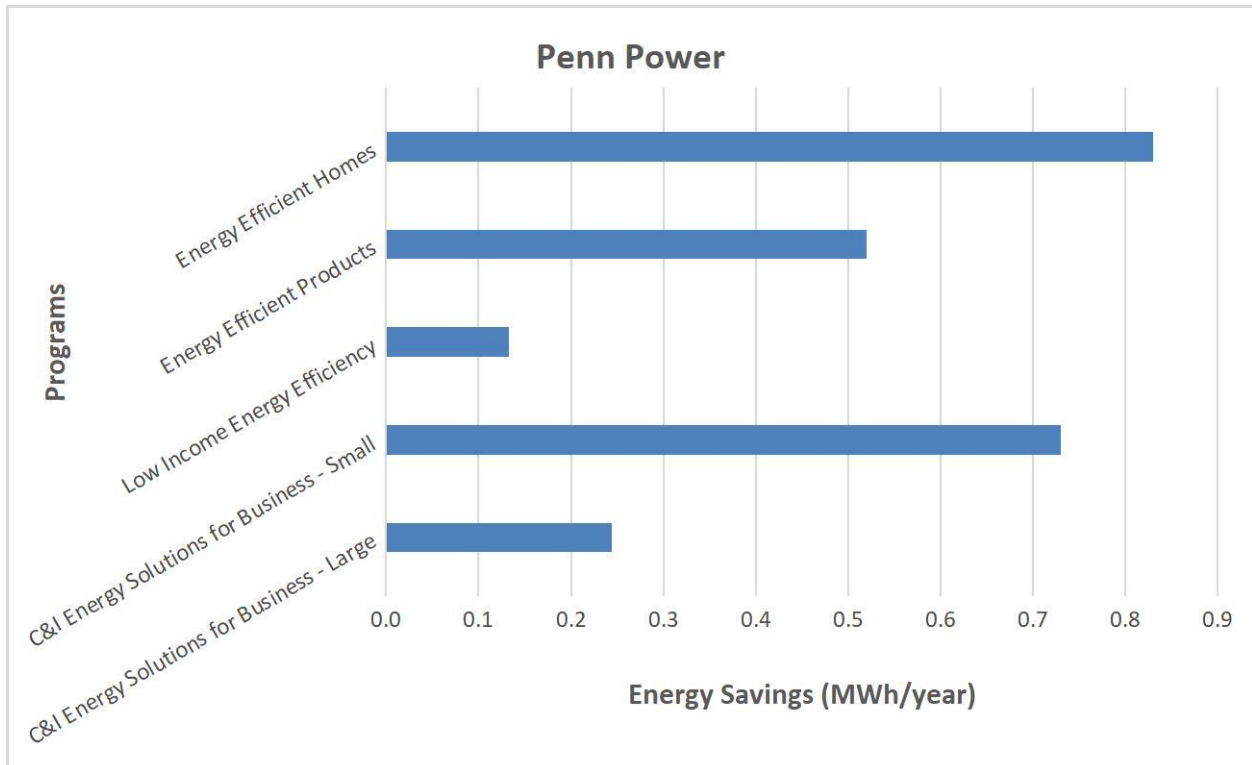
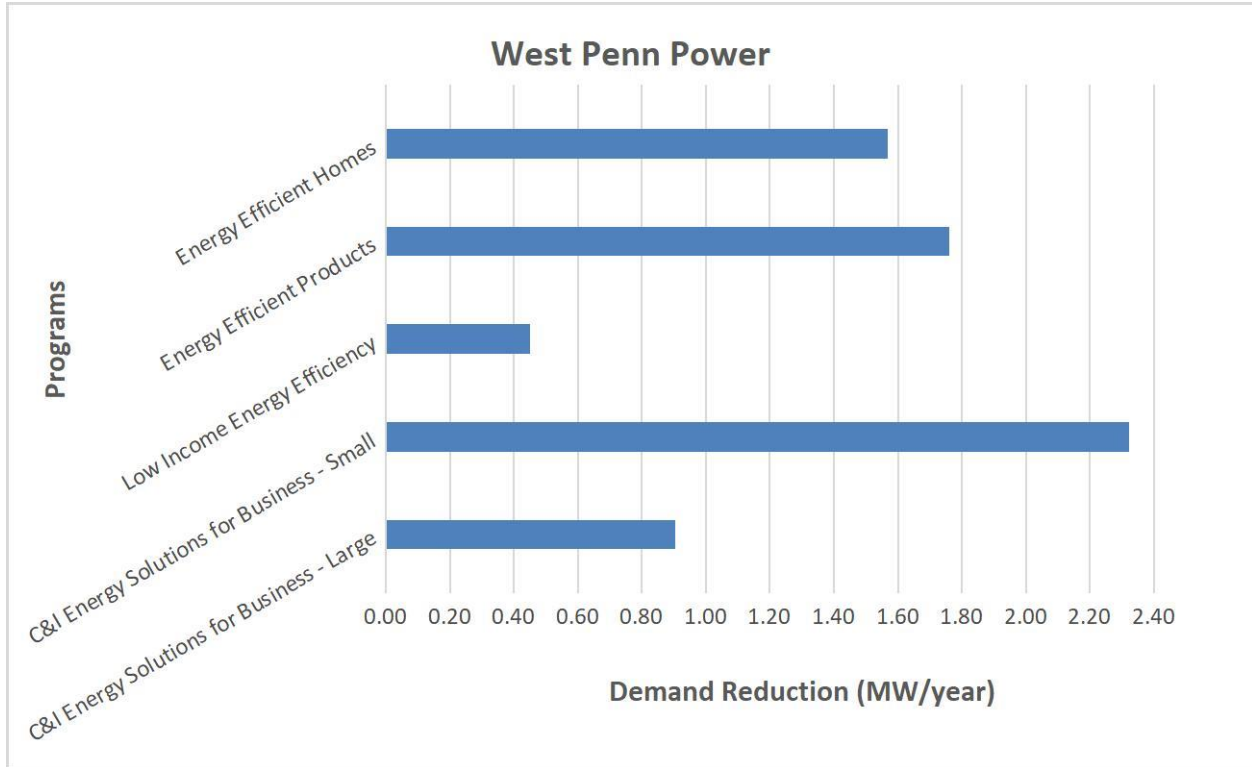


Figure 7D: PYRTD Gross Peak Demand Reduction by Program - West Penn Power

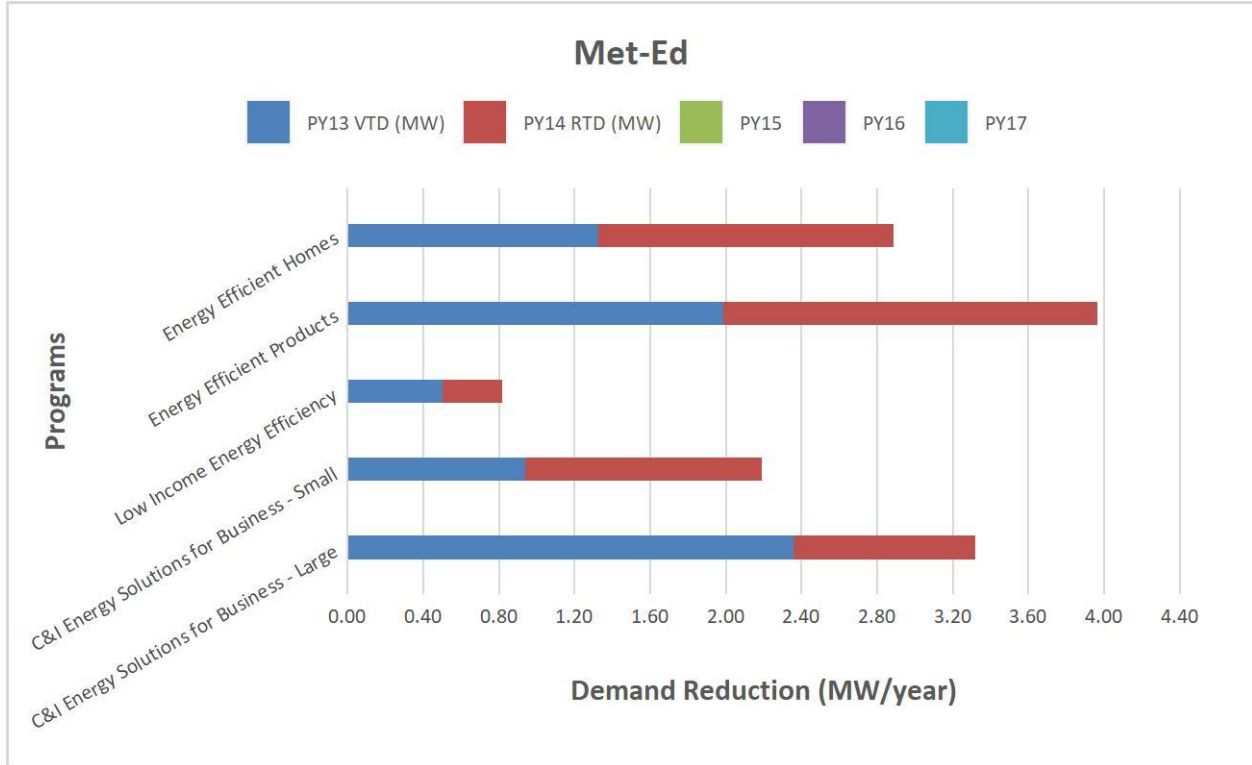


Figures 8A-8D: PSA Gross Peak Demand Reduction by Energy Efficiency Program for Phase IV present a summary of the PSA gross peak demand reduction by energy efficiency program for Phase IV of Act 129.⁷

⁷ 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 IV⁸

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



⁸ 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

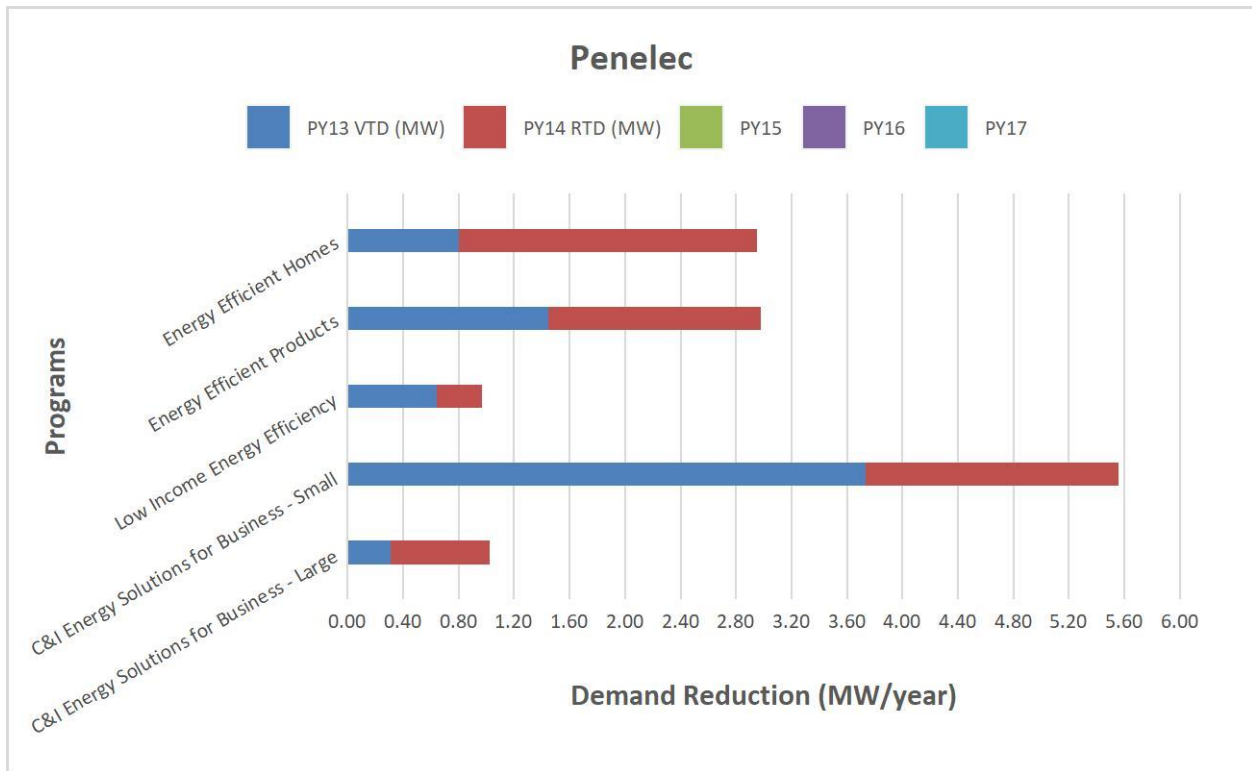


Figure 8C: PSA Gross Peak Demand Reduction by Energy Efficiency Program for Phase IV – Penn Power

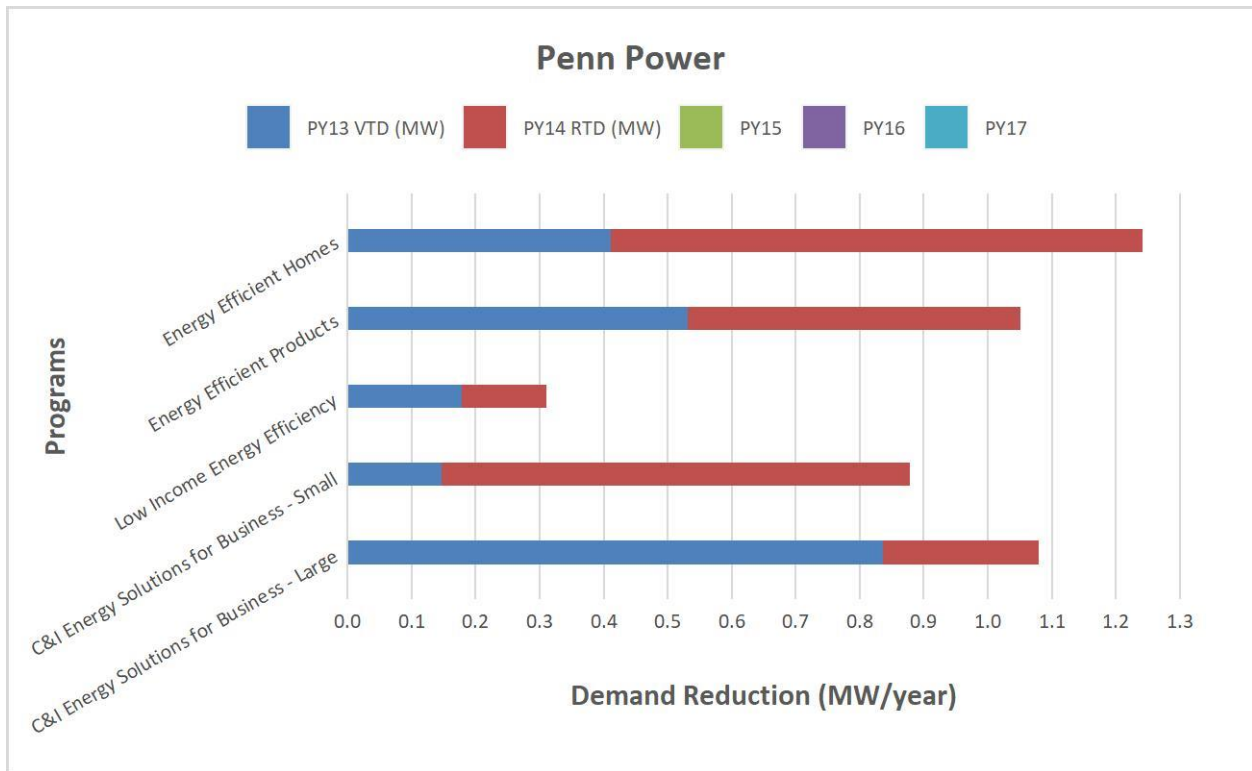


Figure 8D: PSA Gross Peak Demand Reduction by Energy Efficiency Program for Phase IV – West Penn Power

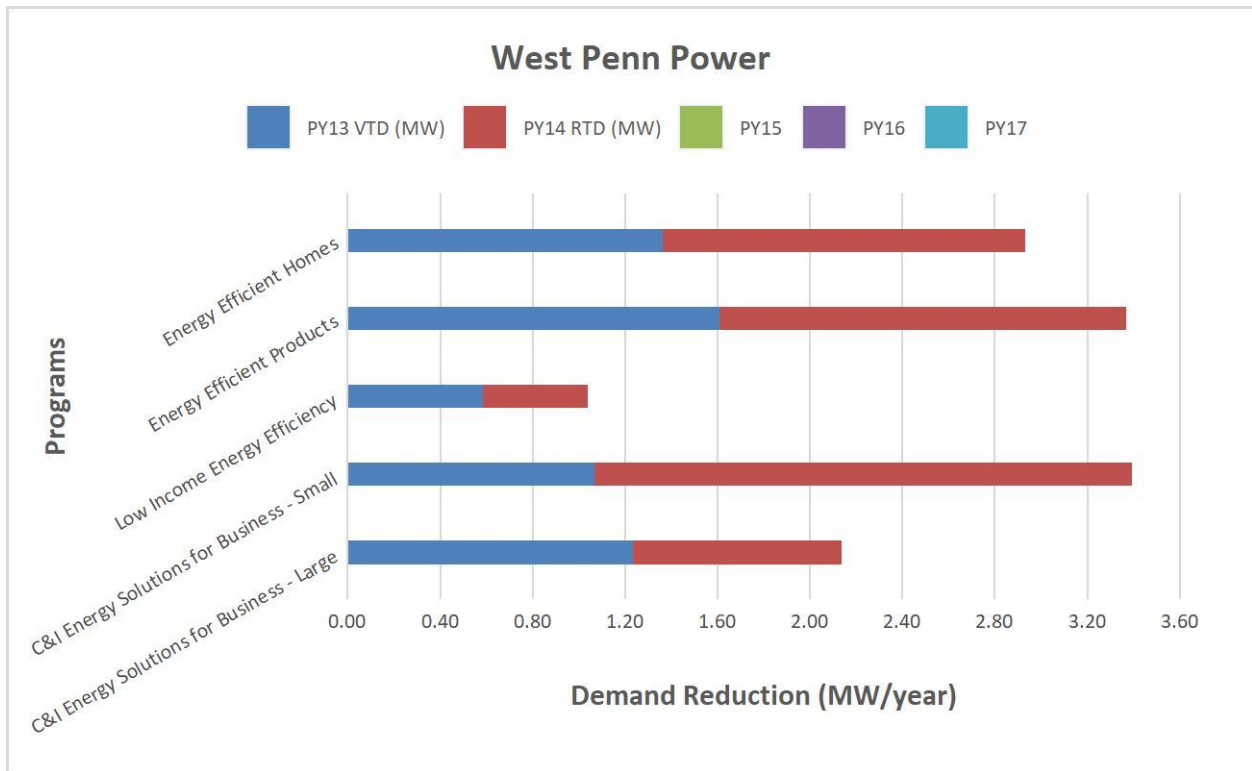


Table 5-2 presents a summary of the peak demand impacts by program through the current reporting period.

Table 5-2: Peak Demand Reduction by Program (MW/Year)⁹

Utility	Program	PYRTD	RTD	VTD	PSA
Met-Ed	Energy Efficient Homes	1.56	3.75	1.33	2.89
	Energy Efficient Products	1.98	3.92	1.99	3.96
	Low Income Energy Efficiency	0.32	0.85	0.50	0.82
	C&I Energy Solutions for Business - Small	1.25	2.21	0.94	2.19
	C&I Energy Solutions for Business - Large	0.96	3.28	2.36	3.32
	Portfolio Total	6.07	14.01	7.11	13.18
Penelec	Energy Efficient Homes	2.15	3.01	0.80	2.95
	Energy Efficient Products	1.53	2.91	1.45	2.98
	Low Income Energy Efficiency	0.33	1.07	0.64	0.97
	C&I Energy Solutions for Business - Small	1.83	5.69	3.73	5.56
	C&I Energy Solutions for Business - Large	0.71	1.08	0.31	1.02
	Portfolio Total	6.55	13.75	6.94	13.49
Penn Power	Energy Efficient Homes	0.83	1.58	0.41	1.24
	Energy Efficient Products	0.52	1.04	0.53	1.05
	Low Income Energy Efficiency	0.13	0.37	0.18	0.31
	C&I Energy Solutions for Business - Small	0.73	0.90	0.15	0.88
	C&I Energy Solutions for Business - Large	0.24	1.09	0.84	1.08
	Portfolio Total	2.46	4.98	2.10	4.56
West Penn Power	Energy Efficient Homes	1.57	3.83	1.36	2.93
	Energy Efficient Products	1.76	3.36	1.61	3.37
	Low Income Energy Efficiency	0.45	1.25	0.59	1.04
	C&I Energy Solutions for Business - Small	2.32	3.55	1.07	3.39
	C&I Energy Solutions for Business - Large	0.90	2.21	1.23	2.14
	Portfolio Total	7.01	14.20	5.86	12.86

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

Section 6 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 PY14 are shown in Table 6-1A to 7-1D. The columns in these tables are adapted from the list of 'Program Cost Elements' in the Commission's EE&C Plan template¹⁰ for Phase IV. Thus far in PY14, 61% of Met-Ed, 62% of Penelec, 63% of Penn Power, and 64% 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 installation 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 an EDCs employs to support program delivery.

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

Table 6-1A to 7-1D: Program Year to Date Financials¹¹**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>	\$1,542,273	\$89,389	\$411,953	\$109,659	\$2,153,275
<i>Energy Efficient Products</i>	\$1,258,356	\$80,636	\$694,321	\$57,805	\$2,091,118
<i>Low Income Energy Efficiency</i>	\$722,904	\$55,533	\$218,909	\$48,873	\$1,046,219
<i>C&I Energy Solutions for Business - Small</i>	\$945,309	\$127,444	\$390,004	\$137,941	\$1,600,699
<i>C&I Energy Solutions for Business - Large</i>	\$281,479	\$165,016	\$176,530	\$130,278	\$753,303
<i>Common Portfolio Costs</i>					\$0
<i>Total Portfolio</i>	\$4,750,320	\$518,019	\$1,891,717	\$484,557	\$7,644,613
<i>SWE Costs⁵</i>	\$0	\$0	\$0	\$0	\$126,720
<i>Total</i>	\$4,750,320	\$518,019	\$1,891,717	\$484,557	\$7,771,333

¹¹ 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

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>	\$1,389,258	\$74,231	\$263,030	\$88,004	\$1,814,523
<i>Energy Efficient Products</i>	\$826,549	\$79,220	\$497,530	\$54,655	\$1,457,954
<i>Low Income Energy Efficiency</i>	\$799,806	\$66,763	\$216,484	\$57,065	\$1,140,118
<i>C&I Energy Solutions for Business - Small</i>	\$1,959,077	\$144,071	\$863,883	\$153,440	\$3,120,471
<i>C&I Energy Solutions for Business - Large</i>	(\$122,829)	\$123,237	\$18,744	\$95,951	\$115,103
<i>Common Portfolio Costs</i>					\$0
<i>Total Portfolio</i>	\$4,851,860	\$487,522	\$1,859,670	\$449,116	\$7,648,168
<i>SWE Costs⁵</i>	\$0	\$0	\$0	\$0	\$114,840
<i>Total</i>	\$4,851,860	\$487,522	\$1,859,670	\$449,116	\$7,763,008

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

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>	\$547,713	\$41,601	\$138,455	\$37,547	\$765,317
<i>Energy Efficient Products</i>	\$287,581	\$32,268	\$165,740	\$16,306	\$501,896
<i>Low Income Energy Efficiency</i>	\$224,089	\$22,824	\$83,367	\$18,488	\$348,769
<i>C&I Energy Solutions for Business - Small</i>	\$549,020	\$49,315	\$165,681	\$39,228	\$803,244
<i>C&I Energy Solutions for Business - Large</i>	\$100,201	\$42,203	\$90,489	\$24,411	\$257,304
<i>Common Portfolio Costs</i>					\$0
<i>Total Portfolio</i>	\$1,708,605	\$188,212	\$643,733	\$135,980	\$2,676,531
<i>SWE Costs⁵</i>	\$0	\$0	\$0	\$0	\$35,640
<i>Total</i>	\$1,708,605	\$188,212	\$643,733	\$135,980	\$2,712,171

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

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>	\$1,558,823	\$100,459	\$472,147	\$127,594	\$2,259,024
<i>Energy Efficient Products</i>	\$920,328	\$93,003	\$636,056	\$66,900	\$1,716,288
<i>Low Income Energy Efficiency</i>	\$1,079,175	\$60,452	\$248,600	\$52,248	\$1,440,476
<i>C&I Energy Solutions for Business - Small</i>	\$1,971,108	\$127,933	\$682,293	\$136,620	\$2,917,953
<i>C&I Energy Solutions for Business - Large</i>	\$309,082	\$118,156	\$152,812	\$92,893	\$672,943
<i>Common Portfolio Costs</i>					\$0
<i>Total Portfolio</i>	\$5,838,517	\$500,003	\$2,191,909	\$476,255	\$9,006,684
<i>SWE Costs⁵</i>	\$0	\$0	\$0	\$0	\$118,800
<i>Total</i>	\$5,838,517	\$500,003	\$2,191,909	\$476,255	\$9,125,484

Program-specific and portfolio total finances since the inception of Phase IV are shown in Table 6-2A to 7-2D.

Table 6-2A to 7-2D: Phase IV to Date Financials¹²

Table 7-2A: Phase IV 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>	\$3,764,456	\$305,963	\$1,113,847	\$186,349	\$5,370,615
<i>Energy Efficient Products</i>	\$2,506,559	\$272,954	\$1,745,912	\$142,295	\$4,667,719
<i>Low Income Energy Efficiency</i>	\$1,711,728	\$238,516	\$630,354	\$94,832	\$2,675,430
<i>C&I Energy Solutions for Business - Small</i>	\$1,533,892	\$404,771	\$1,076,113	\$278,998	\$3,293,774
<i>C&I Energy Solutions for Business - Large</i>	\$902,543	\$497,503	\$705,329	\$344,395	\$2,449,770
<i>Common Portfolio Costs</i>					\$0
<i>Total Portfolio</i>	\$10,419,178	\$1,719,707	\$5,271,555	\$1,046,869	\$18,457,308
<i>SWE Costs⁵</i>	\$0	\$0	\$0	\$0	\$380,160
<i>Total</i>	\$10,419,178	\$1,719,707	\$5,271,555	\$1,046,869	\$18,837,468

¹² 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

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>	\$2,757,153	\$260,755	\$638,934	\$145,846	\$3,802,688
<i>Energy Efficient Products</i>	\$1,598,946	\$268,609	\$1,244,266	\$133,595	\$3,245,416
<i>Low Income Energy Efficiency</i>	\$2,303,602	\$278,762	\$699,247	\$112,408	\$3,394,018
<i>C&I Energy Solutions for Business - Small</i>	\$2,839,426	\$455,342	\$1,814,612	\$309,638	\$5,419,018
<i>C&I Energy Solutions for Business - Large</i>	\$456,694	\$371,036	\$508,849	\$255,116	\$1,591,695
<i>Common Portfolio Costs</i>					\$0
<i>Total Portfolio</i>	\$9,955,820	\$1,634,505	\$4,905,908	\$956,603	\$17,452,836
<i>SWE Costs⁵</i>	\$0	\$0	\$0	\$0	\$344,520
<i>Total</i>	\$9,955,820	\$1,634,505	\$4,905,908	\$956,603	\$17,797,356

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

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>	\$1,158,939	\$127,445	\$411,032	\$64,775	\$1,762,192
<i>Energy Efficient Products</i>	\$631,792	\$95,953	\$437,176	\$39,956	\$1,204,878
<i>Low Income Energy Efficiency</i>	\$634,052	\$87,419	\$282,413	\$35,343	\$1,039,227
<i>C&I Energy Solutions for Business - Small</i>	\$789,122	\$147,378	\$411,679	\$79,523	\$1,427,702
<i>C&I Energy Solutions for Business - Large</i>	\$559,979	\$121,249	\$292,093	\$63,409	\$1,036,730
<i>Common Portfolio Costs</i>					\$0
<i>Total Portfolio</i>	\$3,773,884	\$579,445	\$1,834,394	\$283,006	\$6,470,729
<i>SWE Costs⁵</i>	\$0	\$0	\$0	\$0	\$106,920
<i>Total</i>	\$3,773,884	\$579,445	\$1,834,394	\$283,006	\$6,577,649

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

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>	\$3,707,753	\$359,848	\$1,203,379	\$214,868	\$5,485,848
<i>Energy Efficient Products</i>	\$1,892,188	\$321,643	\$1,589,532	\$163,428	\$3,966,790
<i>Low Income Energy Efficiency</i>	\$2,122,843	\$262,974	\$636,144	\$102,802	\$3,124,764
<i>C&I Energy Solutions for Business - Small</i>	\$3,683,955	\$409,039	\$1,671,403	\$276,537	\$6,040,933
<i>C&I Energy Solutions for Business - Large</i>	\$967,207	\$359,072	\$556,260	\$247,135	\$2,129,674
<i>Common Portfolio Costs</i>					\$0
<i>Total Portfolio</i>	\$12,373,945	\$1,712,576	\$5,656,718	\$1,004,770	\$20,748,009
<i>SWE Costs</i> ⁵	\$0	\$0	\$0	\$0	\$356,400
<i>Total</i>	\$12,373,945	\$1,712,576	\$5,656,718	\$1,004,770	\$21,104,409

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 PY14 will be presented in the final annual report to the PA PUC on September 30, 2023, 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 6-3 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 6-3A to 7-3D.

Table 6-3A to 7-3D: EE&C Plan Expenditures by Cost-Recovery Category¹³**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	\$5,344	\$12,872
	Small C&I	Rate GS-Small, Rate GS-Medium, and Outdoor Lighting Service	\$1,623	\$3,378
	Large C&I	Rate GS-Large, Rate GP and Rate TP	\$795	\$2,575
	Street Lighting	Street Lighting Service, LED Street Lighting Service and Ornamental Street Lighting Service	\$10	\$12
Portfolio Total			\$7,771	\$18,837

**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	\$4,462	\$10,589
	Small C&I	Rate GS-Small, Rate GS-Medium, and Outdoor Lighting Service	\$3,154	\$5,521
	Large C&I	Rate GS-Large, Rate GP, and Rate LP	\$145	\$1,682
	Street Lighting	Street Lighting Service, LED Street Lighting Service, and Ornamental Street Lighting Service	\$2	\$5
Portfolio Total			\$7,763	\$17,797

¹³ 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	\$1,634	\$4,060
	Small C&I	Rate GS, GS Special Rider GSDS, Rate GM, Rate GS-Large and POL	\$808	\$1,451
	Large C&I	Rate GP, and Rate GT	\$265	\$1,061
	Street Lighting	Rate Schedules SV, SVD, SM and LED	\$5	\$5
Portfolio Total			\$2,712	\$6,578

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	\$5,475	\$12,755
	Small C&I	Rate GS 20, Rate GS 30	\$2,947	\$6,130
	Large C&I	Rate GS 35, 40, 44, 46, and Tariff No. 38	\$702	\$2,215
	Street Lighting	Rate Schedules 51 through 58, 71, 72	\$1	\$4
Portfolio Total			\$9,125	\$21,104

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**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Semi-Annual Report to the Pennsylvania Public	:	
Utility Commission and Act 129 Statewide	:	Docket Nos. M-2020-3020820
Evaluator; Phase IV Program Period June 1, 2022:	:	M-2020-3020821
to May 31, 2023, for Metropolitan Edison	:	M-2020-3020822
Company, Pennsylvania Electric Company,	:	M-2020-3020823
Pennsylvania Power Company and West Penn	:	
Power Company	:	

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of the foregoing document upon the parties via listed below by e-mail.

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