

## PPL Electric Utilities Semi-Annual Report to the Pennsylvania Public Utility Commission

**PHASE IV OF ACT 129 PY17 SEMI-ANNUAL REPORT  
(JUNE 1, 2025 – NOVEMBER 30, 2025)  
FOR PENNSYLVANIA ACT 129 OF 2008  
ENERGY EFFICIENCY AND CONSERVATION PLAN**



**Prepared by:**  
Cadmus

**Prepared for:**  
PPL Electric Utilities

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## Table of Contents

<b>PPL Electric Utilities Semi-Annual Report to the Pennsylvania Public Utility Commission .....</b>	<b>i</b>
<b>Table of Contents.....</b>	<b>i</b>
<b>Figures.....</b>	<b>ii</b>
<b>Tables.....</b>	<b>ii</b>
<b>Acronyms .....</b>	<b>ii</b>
<b>Types of Savings.....</b>	<b>iv</b>
<b>1. Introduction .....</b>	<b>1</b>
<b>2. Summary of Achievements.....</b>	<b>2</b>
2.1. Carryover Savings from Phase III of Act 129 .....	2
2.2. Phase IV Energy Efficiency Achievements to Date.....	3
2.3. Phase IV Performance by Customer Segment .....	6
<b>3. Updates and Findings.....</b>	<b>8</b>
3.1. Implementation Updates and Findings.....	8
3.1.1. Low-Income Program.....	8
3.1.2. Residential Program.....	8
3.1.3. Non-Residential Program.....	9
3.2. Evaluation Updates and Findings.....	10
<b>4. Summary of Participation by Program .....</b>	<b>11</b>
<b>5. Summary of Energy Impacts by Program Component .....</b>	<b>12</b>
<b>6. Summary of Peak Demand Impacts by Program Component .....</b>	<b>14</b>
<b>7. Summary of Finances .....</b>	<b>17</b>
7.1. Program and Portfolio Financials.....	17
7.2. Cost Recovery .....	18

## Figures

Figure 1. Portfolio Carryover Savings from Phase III of Act 129 .....	2
Figure 2. Low-Income Carryover Savings from Phase III of Act 129 .....	3
Figure 3. Performance Toward Phase IV Portfolio Energy Target .....	4
Figure 4. Performance Toward Phase IV Portfolio Peak Demand Target .....	5
Figure 5. EE&C Plan Performance Toward Phase IV Low-Income Compliance Target .....	6
Figure 6. PY17 Reported Gross Energy Savings by Program Component .....	12
Figure 7. Phase IV PSA Gross Energy Savings by Program Component .....	12
Figure 8. PY17 RTD Gross Peak Demand Savings by Program Component (System Level) .....	14
Figure 9. Phase IV PSA Gross Peak Demand Savings by Program Component (System Level) .....	15

## Tables

Table 1. PY17 Summary Statistics by Customer Segment .....	6
Table 2. Phase IV Summary Statistics by Customer Segment .....	7
Table 3. PY17 Evaluation Activities .....	10
Table 4. EE&C Plan Participation by Program .....	11
Table 5. Energy Savings by Program Component (MWh/Year) .....	13
Table 6. System-Level Peak Demand Savings by Program Component (MW/Year) .....	16
Table 7. Program Year to Date Financials (\$1,000) .....	18
Table 8. Phase IV to Date Financials (\$1,000) .....	18
Table 9. EE&C Plan Expenditures by Cost-Recovery Category .....	19



## Acronyms

<b>C&amp;I</b>	Commercial and Industrial
<b>EDC</b>	Electric distribution company
<b>EE&amp;C</b>	Energy efficiency and conservation
<b>EM&amp;V</b>	Evaluation, measurement, and verification
<b>GNE</b>	Government, nonprofit, educational
<b>HER</b>	Home Energy Report
<b>ICSP</b>	Implementation Conservation Service Provider
<b>M&amp;V</b>	Measurement and verification
<b>MW</b>	Megawatt
<b>MWh</b>	Megawatt-hour
<b>NTG</b>	Net-to-Gross
<b>P4TD</b>	Phase IV to date
<b>PA PUC</b>	Pennsylvania Public Utility Commission
<b>PSA</b>	Phase IV to date preliminary savings achieved; equal to VTD + PYRTD + PY15 unverified + PY16 unverified
<b>PSA+CO</b>	PSA savings plus carryover from Phase III
<b>PY</b>	Program Year: for example, PY17, from June 1, 2025, to May 31, 2026
<b>PYRTD</b>	Program year reported to date
<b>PYVTD</b>	Program year verified to date
<b>PYTD</b>	Program year to date
<b>RTD</b>	Phase IV to date reported gross savings
<b>SEEE</b>	Student Energy Efficient Education
<b>SWE</b>	Statewide evaluator
<b>TRC</b>	Total resource cost
<b>TRM</b>	Technical reference manual
<b>VTD</b>	Phase IV to Date Verified

## 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 energy efficiency and conservation (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 and peak demand savings values calculated by the electric distribution company (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 and peak demand savings estimates reported by the independent evaluation contractor after the gross impact evaluation and associated measurement and verification (M&V) efforts have been completed.

**Verified Net:** Also referred to as *ex post* net savings. The energy and peak demand savings 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 and demand savings 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 Technical Reference Manual (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 and demand savings 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 total resource cost (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 and peak demand savings achieved by an EE&C program or portfolio within the current program year. PYTD values for energy efficiency will always be reported as gross savings in a semi-annual report.

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

**Phase IV to Date (P4TD):** The energy and peak demand savings 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), plus the unverified savings from previous years.

**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 the unverified savings from previous years, 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.

## 1. Introduction

Pennsylvania Act 129 of 2008, signed on October 15, 2008, mandated energy savings and demand reduction goals for the largest 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 EE&C plan with the Pennsylvania Public Utility Commission (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 PA 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 for PPL Electric Utilities in Program Year 17 (PY17), as well as the cumulative accomplishments of the Phase IV programs since inception. Additionally, the report documents the energy savings carried over from Phase III. The Phase III carryover savings count toward EDC savings compliance targets for Phase IV.

This report details participation, spending, and reported gross impacts of energy efficiency programs during the first six months of PY17. Compliance with Act 129 savings goals is ultimately based on verified gross savings. PPL Electric Utilities has retained Cadmus as an independent evaluation contractor for Phase IV of Act 129. Cadmus is responsible for measuring and verifying savings and calculating verified gross savings. The verified gross savings for PY17 energy efficiency programs will be reported in the final annual report, to be filed on September 30, 2026.

Phase IV of Act 129 includes a peak demand reduction goal for PPL Electric Utilities. 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 p.m. to 6:00 p.m. in June, July, and August. As in prior phases, compliance with Act 129 peak compliance goals is assessed at the system level, so all verified coincident peak demand impacts are adjusted for line losses.

## 2. Summary of Achievements

### 2.1. Carryover Savings from Phase III of Act 129

The Commission's Phase IV Implementation Order 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.<sup>1</sup> PPL Electric Utilities has a total of 306,275 MWh/year of portfolio carryover savings and 31,089 MWh/year of low-income carryover savings from Phase III toward its Phase IV energy reduction targets.

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

Figure 1 compares PPL Electric Utilities' Phase III verified gross savings total to the Phase III portfolio compliance target to illustrate the carryover calculation.

**Figure 1. Portfolio Carryover Savings from Phase III of Act 129**

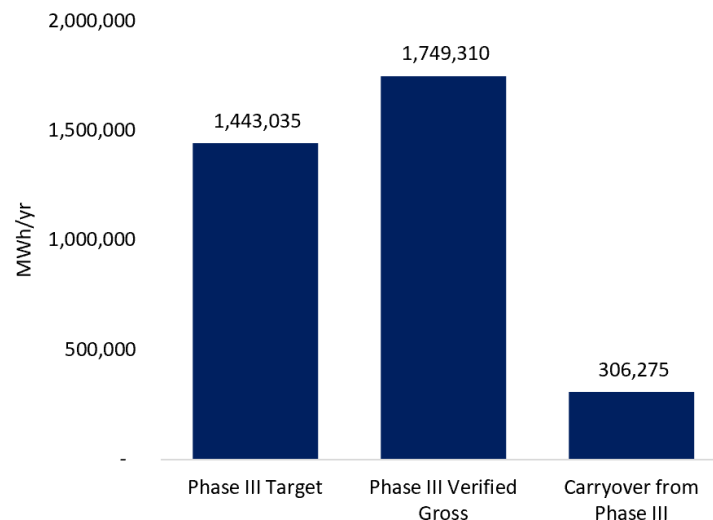
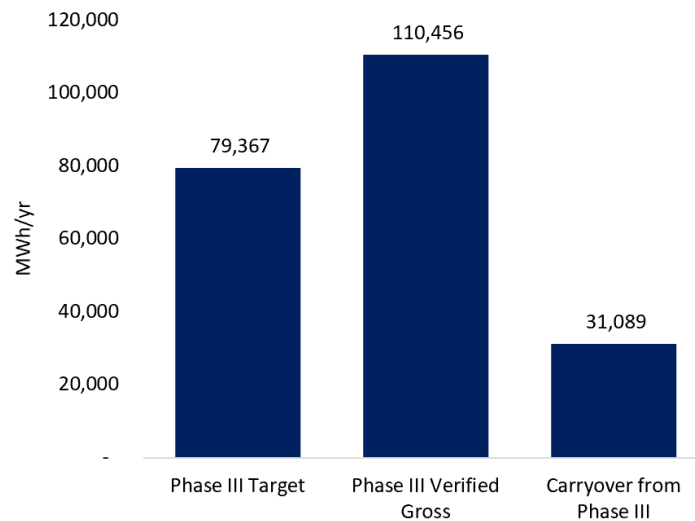


Figure 2 compares PPL Electric Utilities' Phase III verified gross savings total to the Phase III Low-Income compliance target to illustrate the carryover calculation.

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



Figure 2. Low-Income Carryover Savings from Phase III of Act 129



## 2.2. Phase IV Energy Efficiency Achievements to Date

Since the beginning of PY17 on June 1, 2025, PPL Electric Utilities has claimed the following savings:

- 91,411 MWh/year of reported gross electric energy savings (PYRTD)
- 20.73 MW/year of reported gross peak demand reductions (system-level PYRTD)

Since the beginning of Phase IV of Act 129 on June 1, 2021, PPL Electric Utilities has achieved the following savings:<sup>2</sup>

- 1,095,281 MWh/yr of reported gross electric savings (RTD)
- 208.35 MW/yr of reported gross peak demand reductions (system-level RTD) from energy efficiency programs
- 975,545 MWh/year of verified gross electric energy savings (VTD) without carryover from Phase III<sup>3</sup>
- 176.33 MW/year of verified gross system-level peak demand reductions (VTD) from energy efficiency programs<sup>4</sup>
- 17 MWh/year of unverified PY15 and 7,462 MWh/year of unverified PY16 gross electric savings
- 0.0005 MW/year of unverified PY15 and 1.88 MW/year of unverified PY16 gross system-level peak demand reductions from energy efficiency programs

<sup>2</sup> All gross peak demand savings are reported at the system level, so they reflect adjustments for transmission and distribution losses.

<sup>3</sup> VTD savings in the PY16 Annual Report were increased by 193 MWh/year following a review by the SWE.

<sup>4</sup> VTD savings in the PY16 Annual Report were increased by 0.17 MW/year following a review by the SWE.

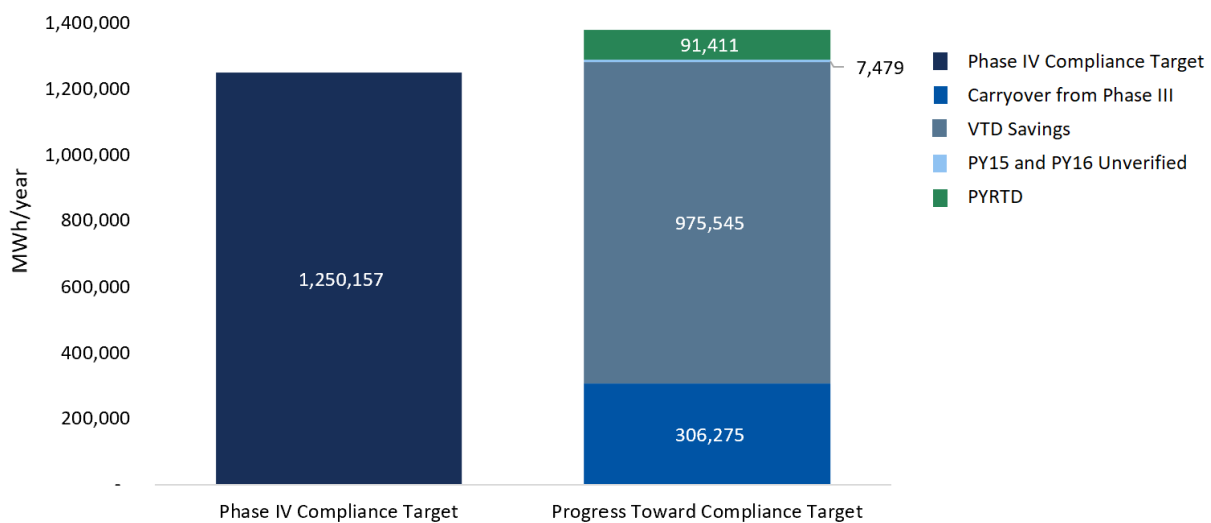
- 1,074,435 MWh/year of gross electric energy savings (PSA)<sup>5</sup>
- 198.95 MW/year of gross system-level peak demand savings (PSA) from energy efficiency programs

Including carryover energy savings from Phase III, PPL Electric Utilities has achieved the following savings:

- 1,380,710 MWh/year of PSA+CO energy savings recorded to date in Phase IV. This represents 110% of the energy savings compliance target of 1,250,157 MWh/year.<sup>6</sup>

Figure 3 and Figure 4 show PPL Electric Utilities' EE&C plan progress toward Phase IV energy conservation and peak demand reduction compliance targets.

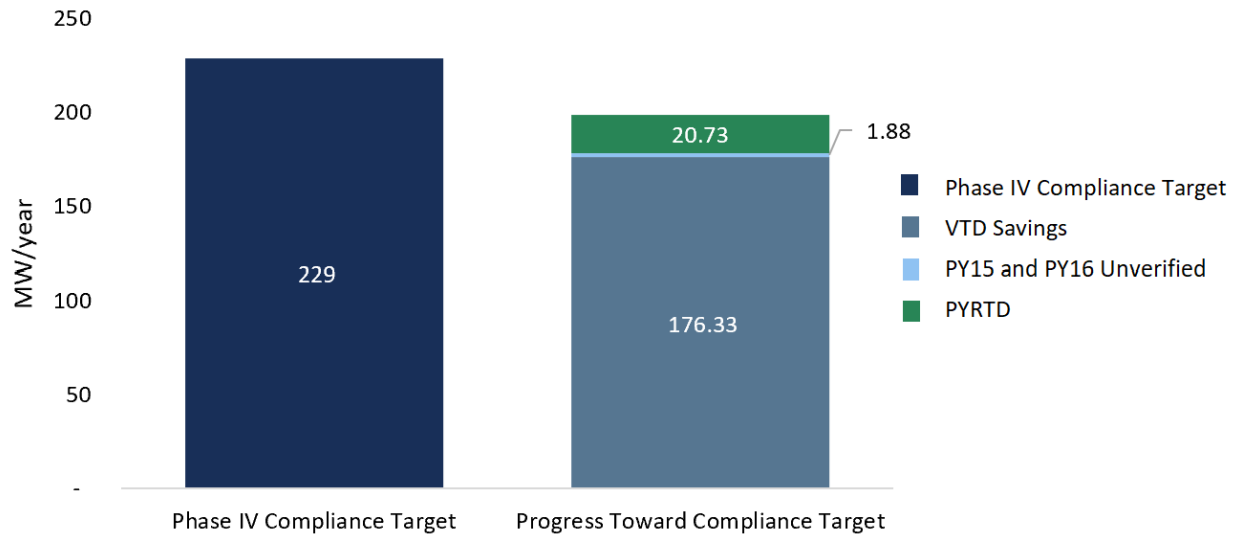
**Figure 3. Performance Toward Phase IV Portfolio Energy Target**



<sup>5</sup> This total includes verified gross savings from previous Phase IV program years, unverified gross savings from PY15 and PY16, and the PYTD reported gross savings from PY17.

<sup>6</sup> PPL Electric Utilities Corporation. *Energy Efficiency and Conservation Plan Act 129 Phase IV*. Docket No. M-2020-3020824. Revised March 27, 2025.

Figure 4. Performance Toward Phase IV Portfolio Peak Demand Target



Note: All gross peak demand savings are reported at the system level, so they reflect adjustments for transmission and distribution losses.

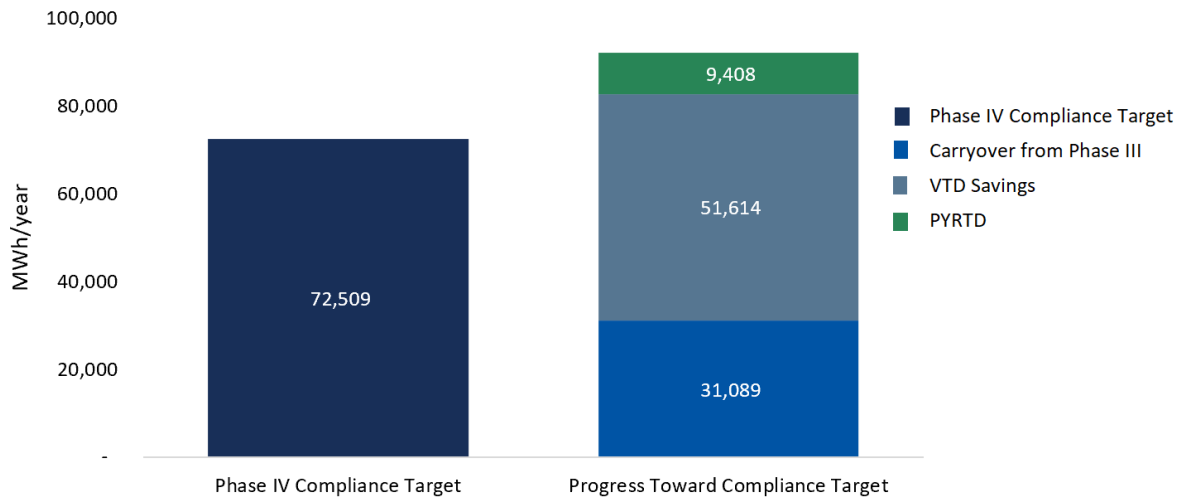
The Phase IV Implementation Order directed EDCs to offer conservation measures to the low-income customer segment based on the proportion of electric sales attributable to low-income households. The proportionate number of measures for PPL Electric Utilities to target is 9.95%.<sup>7</sup> PPL Electric Utilities offers a total of 71 EE&C measures to its residential and nonresidential customer classes. In Q1 and Q2 of PY17, there were 15 measures available at no cost to customers in the low-income segment. This represents 21.1% of the total measures offered in the EE&C plan and exceeds the proportionate number of measures targeted.

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 PPL Electric Utilities is 72,509 MWh/year,<sup>8</sup> based on verified gross savings. Figure 5 compares the PSA+CO performance to date for the low-income customer segment to the Phase IV savings target. Based on the latest available information, PPL Electric Utilities has achieved 127% of the Phase IV low-income energy savings target (PSA+CO).

<sup>7</sup> Pennsylvania Public Utility Commission. *Energy Efficiency and Conservation Program Implementation Order*. Docket No. M-2020-3015228, (Phase IV Implementation Order). Entered June 18, 2020.

<sup>8</sup> PPL Electric Utilities Corporation. *Energy Efficiency and Conservation Plan Act 129 Phase IV*. Docket No. M-2020-3020824. Revised March 27, 2025.

**Figure 5. EE&C Plan Performance Toward Phase IV Low-Income Compliance Target**



### 2.3. Phase IV Performance by Customer Segment

Table 1 shows the participation, savings, and spending by customer sector for PY17, and Table 2 shows these same statistics for Phase IV. The residential, small commercial and industrial (C&I), and large C&I sectors are defined by the EDC tariff, and the residential low-income and government, nonprofit, educational (GNE) sector is defined by statute (66 Pa. C.S. § 2806.1). The residential low-income segment is a subset of the residential customer class, and the GNE segment may include customers in the residential, small C&I, or large C&I rate classes. The savings, spending, and participation values for the low-income and GNE segments were removed from the parent sectors, as shown in Table 1 and Table 2.

**Table 1. PY17 Summary Statistics by Customer Segment**

Parameter	Residential (Non-Low-Income)	Residential Low-Income	Small C&I (Non-GNE)	Large C&I (Non-GNE)	GNE	Total <sup>(1)</sup>
# Participants	70,542	22,708	2,694	332	979	<b>97,255</b>
PYRTD MWh/yr	24,569	9,147	28,822	17,662	11,210	<b>91,411</b>
PYRTD MW/yr (system level)	5.71	1.11	8.23	3.28	2.39	<b>20.73</b>
Incentives (\$1,000) <sup>(2)</sup>	\$3,718	\$2,250	\$2,989	\$3,208	\$1,590	<b>\$13,756</b>
<sup>(1)</sup> Total may not sum due to rounding.						
<sup>(2)</sup> PPL Electric Utilities reports the number of participants and PYRTD using their participant tracking database, but uses the incentive amounts from a separate accounting system since they are reported along with the other expenditures.						

Table 2 summarizes plan performance by sector from the beginning of Phase IV.

**Table 2. Phase IV Summary Statistics by Customer Segment**

Parameter	Residential (Non-Low-Income)	Residential Low-Income	Small C&I (Non-GNE)	Large C&I (Non-GNE)	GNE	Total <sup>(1)</sup>
# Participants	2,325,272	124,806	134,667	3,653	7,336	<b>2,595,735</b>
PSA MWh/yr <sup>(2)</sup>	208,644	59,679	382,353	308,051	115,706	<b>1,074,435</b>
PSA MW/yr (system level) <sup>(3)</sup>	31.46	6.80	80.78	56.94	22.96	<b>198.95</b>
Incentives (\$1,000) <sup>(4)</sup>	\$30,435	\$17,872	\$44,228	\$21,193	\$13,130	<b>\$126,859</b>
<sup>(1)</sup> Total may not sum due to rounding. <sup>(2)</sup> VTD residential sector savings in the PY16 Annual Report were increased by 193 MWh/year following a review by the SWE. <sup>(3)</sup> VTD residential sector peak demand in the PY16 Annual Report was increased by 0.17 MW/year following a review by the SWE. <sup>(4)</sup> PPL Electric Utilities reports the number of participants and PYRTD using their participant tracking database, but uses the incentive amounts from a separate accounting system since they are reported along with the other expenditures.						



## 3. Updates and Findings

### 3.1. Implementation Updates and Findings

This section contains implementation updates.

#### 3.1.1. Low-Income Program

The Low-Income Program continues to offer a wide variety of no-cost energy-saving improvements and education to qualifying low-income customers residing in single-family homes, individually and master-metered multifamily units, and manufactured homes in PY17. Program participants prefer in-home assessments, though PPL Electric Utilities will continue to offer virtual appointments until the end of Phase IV. PPL Electric Utilities will focus on multifamily unit assessments for the remainder of Phase IV. The Health and Safety Pilot exhausted all available funding in November 2025 and will not complete further health and safety measures for the remainder of Phase IV. PPL Electric Utilities continues to offer water-saving kits in PY17 to eligible customers to encourage enrollment in the assessment. PPL Electric Utilities is updating its marketing approach in PY17 to reach additional customers, including bus and bus stop campaigns, demographic targeting of Low-Income Home Energy Assistance Program (LIHEAP) customers, and continued cross-promotion of the program to On-Track customers.

#### 3.1.2. Residential Program

This section outlines the program components offered in the Residential Program.

**Appliance Recycling:** The Appliance Recycling component continues to offer both contactless and in-home pickups, with approximately 60% of the participants still preferring the contactless option. During PY17, a limited-time offer for small appliances increased the rebate from \$10 to \$25. This offer ended in December 2025, and the rebate returned to \$10. PPL Electric Utilities also held three small appliance pick-up events in Allentown, Poconos, and Lancaster. These geographically focused events encouraged customers to drop off room air conditioners and dehumidifiers at a central location. PPL Electric Utilities may offer these events again in 2026. Retailer partnerships that removed secondhand appliances from resale have ended for PY17. The school fundraiser recycling drives that support student clubs, organizations, and teams will continue to the end of Phase IV.

**Energy Efficient Homes:** A number of this component's initiatives will continue, change, or expand through the end of the phase:

- In-store instant discount measures ended in November 2025, although the Online Marketplace instant discount measures will continue to the end of Phase IV.
- Virtual assessments and in-home audits, as well as the comprehensive retrofit and deep energy retrofit bonuses, will continue through the end of Phase IV.
- PPL Electric Utilities will continue to recruit distributors to offer discounts at point-of-purchase through the midstream delivery channel in PY17.

- Incentive updates were implemented for the New Homes subcomponent in PY17. This strategic adjustment will allow PPL Electric Utilities to fulfill rebates throughout the remainder of the phase.
- PPL Electric Utilities will continue to offer limited-time heat pump and water heater incentives to encourage the installation of advanced heating/cooling and hot water systems in the New Homes subcomponent in PY17.
- The central heat fuel switch rebate reached its cap and ended in early PY17.
- The EV Charging Equipment Pilot enrollment period ended in December 2025. Data collection and analysis will continue until the end of Phase IV.

**Home Energy Report (HER):** This program component did not change in PY17 and will continue through the end of Phase IV.

**Student Energy Efficient Education (SEEE):** This component continues to actively engage students and teachers through interactive presentations. All three student cohorts, Bright Kids, Take Action, and Innovation, are fully subscribed for PY17.

### 3.1.3. Non-Residential Program

This section outlines the program components offered in the Non-Residential Program.

**Efficient Equipment:** This component continues to offer incentives through downstream and midstream delivery channels. In September 2025, PPL Electric Utilities expanded its midstream offering to include compressed air, refrigeration, and variable frequency drives. In September 2025, incentive levels for small C&I customers were also increased to match the large C&I sector for downstream projects.

**Custom:** Through the Custom component, customers can receive incentives to support the completion of complex and comprehensive projects that involve measures not covered by the Efficient Equipment component. During PY17, building optimization was introduced as an offering for smaller buildings to optimize existing equipment, calibrate sensors, and set points. Building on the success of PPL Electric Utilities' Building Operator Certification program with Pennsylvania College of Technology, a Level 2 course was launched in PY17 to help prior participants deepen their building operations knowledge.

### 3.2. Evaluation Updates and Findings

Table 3 summarizes evaluation activities that have occurred to date in PY17.

**Table 3. PY17 Evaluation Activities**

<b>Evaluation Activities</b>
<b>Portfolio</b>
<ul style="list-style-type: none"> <li>Prepared and submitted PY17 EM&amp;V plans to PPL Electric Utilities and the statewide evaluator (SWE); received feedback, adjusted plans, and received approval on revised plans</li> <li>Received Q1 and Q2 participation data for program components and confirmed that the files contained the necessary data for evaluation activities</li> <li>Provided Q1 and Q2 data for the SWE's quarterly data request</li> </ul>
<b>Low-Income Assessment</b>
<ul style="list-style-type: none"> <li>Preparing for desk reviews and survey development in Jan/Feb 2026</li> </ul>
<b>Residential Program</b>
<b>Appliance Recycling</b>
<ul style="list-style-type: none"> <li>None</li> </ul>
<b>Efficient Lighting – Specialty Bulbs</b>
<ul style="list-style-type: none"> <li>None; program component has sunset</li> </ul>
<b>Energy Efficient Homes</b>
<ul style="list-style-type: none"> <li>Preparing for desk reviews and survey development in Jan/Feb 2026</li> <li>Submitted Deep Energy Retrofits data request</li> </ul>
<b>HER</b>
<ul style="list-style-type: none"> <li>Drafted requests for participation tracking data and billing data to support the evaluation analysis</li> </ul>
<b>SEEE</b>
<ul style="list-style-type: none"> <li>None</li> </ul>
<b>Non-Residential Program</b>
<b>Efficient Equipment Lighting</b>
<ul style="list-style-type: none"> <li>Preparing for desk reviews, interviews, and site visits</li> </ul>
<b>Efficient Equipment Non-Lighting</b>
<ul style="list-style-type: none"> <li>Preparing for desk reviews, interviews, and site visits</li> </ul>
<b>Custom</b>
<ul style="list-style-type: none"> <li>Drafted site-specific M&amp;V plans as needed</li> <li>Completed eight site visits for large stratum projects, including two ride-along visits with the SWE</li> <li>Submitted analysis and final reports to PPL Electric Utilities and the ICSP for five large stratum projects</li> </ul>

## 4. Summary of Participation by Program

Participation is defined differently for each program component depending on program delivery channel and data-tracking practices. The nuances of the participant definition vary by program component and are summarized by program and component in Table 4. The table provides the current participation totals for PY17 and Phase IV.

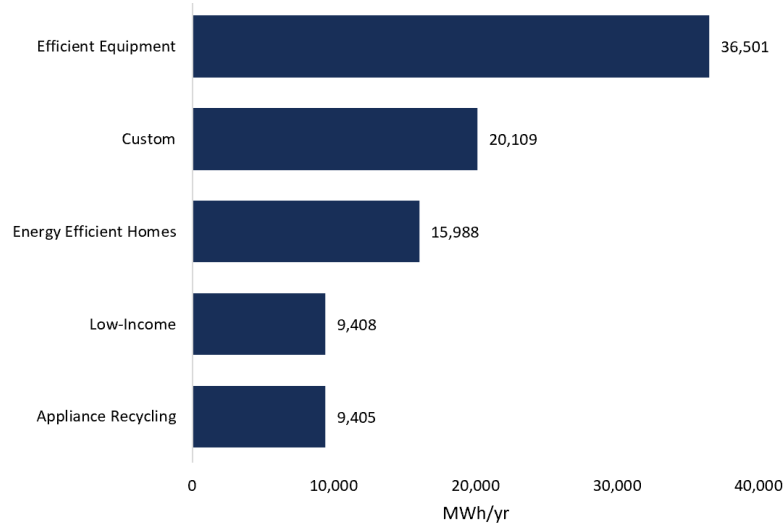
**Table 4. EE&C Plan Participation by Program**

Program/Component	Participant Definition	PYTD Participation	P4TD Participation
<b>Non-Residential Program</b>			
Custom	Unique job number; commercially operable job that received an incentive payment during the reporting period	95	771
Efficient Equipment (Downstream)	Unique job number; corresponds to each unique job that received a rebate	326	2,971
Efficient Equipment (Midstream)	Unique job number; corresponds to each purchase of discounted products	2,249	21,255
<b>Low-Income Program</b>			
Low-Income Assessment	Unique bill account number; corresponds to an income-eligible household that receives an audit and program services or receives a welcome kit	22,724	124,880
<b>Residential Program</b>			
Appliance Recycling	Unique job number; corresponds with each unique appliance decommissioned through the program component during the program year	18,642	73,951
Efficient Lighting	Number of discounted bulbs sold	0	1,588,224
Energy Efficient Homes New Homes	Unique job number; corresponds to a rebated project	801	7,092
Energy Efficient Homes Audit and Weatherization	Unique job number; corresponds to a rebated project: Households could have more than one rebated project	884	6,624
Energy Efficient Homes Online Marketplace	Unique job number; corresponds to a rebated project	1,623	20,766
Energy Efficient Homes Equipment (Downstream)	Unique job number; corresponds to a rebated project; households could have more than one rebated project	5,269	43,581
Energy Efficient Homes Equipment (Midstream)	Unique job number; corresponds to each purchase of discounted products	7	49
Energy Efficient Homes Instant Discount	Unique job number; corresponds to each discounted item purchased	44,256	197,018
Electric Vehicle Pilot	Unique job number; corresponds to a rebated project	379	379
Home Energy Report	Unique household that received at least one report or clicked on the Energy Analyzer portal	0	427,592
Student Energy Efficient Education	Number of participants is counted as the number of energy conservation kits delivered	0	80,582
<b>Portfolio Total</b>		<b>97,255</b>	<b>2,595,735</b>

## 5. Summary of Energy Impacts by Program Component

Figure 6 summarizes PYTD reported gross energy savings by program component for PY17. The energy impacts in this section are presented at the meter level and do not reflect adjustments for transmission and distribution losses.

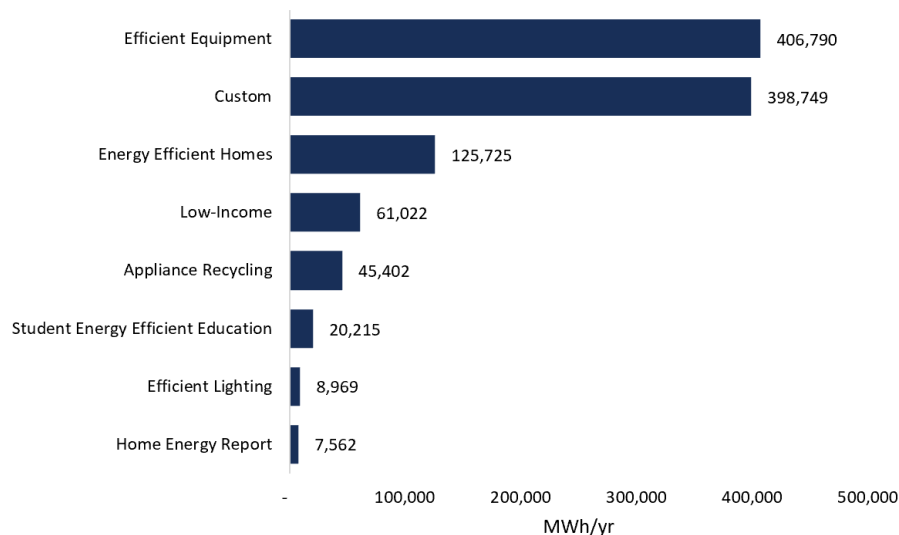
**Figure 6. PY17 Reported Gross Energy Savings by Program Component**



Note: The sum of individual program component savings may not equal the total due to rounding.

Figure 7 summarizes PSA gross energy savings by program component for Phase IV of Act 129. PSA savings include verified gross savings from previous program years, unverified savings from PY15 and PY16, and the PYTD savings from the current program year.

**Figure 7. Phase IV PSA Gross Energy Savings by Program Component**



Notes: VTD savings were increased by 193 MWh/year for Energy Efficient Homes since the PY16 Annual Report was filed. The sum of individual program component savings may not equal the total due to rounding.



Table 5 summarizes the energy impacts by program and component through the current reporting period.

**Table 5. Energy Savings by Program Component (MWh/Year)**

Program	PYRTD	RTD	VTD	PY15 Unverified	PY16 Unverified	PSA <sup>(1)</sup>
<b>Low-Income</b>						
Low-Income	9,408	63,248	51,614	-	-	61,022
<b>Residential</b>						
Appliance Recycling	9,405	46,870	35,998	-	-	45,402
Efficient Lighting	-	8,763	8,969	-	-	8,969
Energy Efficient Homes	15,988	135,953	103,575 <sup>(2)</sup>	17	6,145	125,725
Home Energy Report	-	6,215	7,562	-	-	7,562
Student Energy Efficient Education	-	21,948	20,215	-	-	20,215
<b>Residential Sub-Total <sup>(1)</sup></b>	<b>25,393</b>	<b>219,750</b>	<b>176,319 <sup>(2)</sup></b>	<b>17</b>	<b>6,145</b>	<b>207,874</b>
<b>Non-Residential</b>						
Custom	20,109	415,301	377,323	-	1,317	398,749
Efficient Equipment	36,501	396,982	370,288	-	-	406,790
<b>Non-Residential Sub-Total <sup>(1)</sup></b>	<b>56,610</b>	<b>812,283</b>	<b>747,612</b>	<b>-</b>	<b>1,317</b>	<b>805,539</b>
<b>Portfolio Total <sup>(1)</sup></b>	<b>91,411</b>	<b>1,095,281</b>	<b>975,545 <sup>(2)</sup></b>	<b>17</b>	<b>7,462</b>	<b>1,074,435</b>
Carry-Over Savings from Phase III	-	-	306,275	-	-	306,275
<b>Adjusted Portfolio Total <sup>(1)</sup></b>	<b>91,411</b>	<b>1,095,281</b>	<b>1,281,820 <sup>(2)</sup></b>	<b>17</b>	<b>7,462</b>	<b>1,380,710</b>
<sup>(1)</sup> Totals may not sum due to rounding.						
<sup>(2)</sup> VTD savings for Energy Efficient Homes in the PY16 Annual Report were increased by 193 MWh/year following a review by the SWE.						

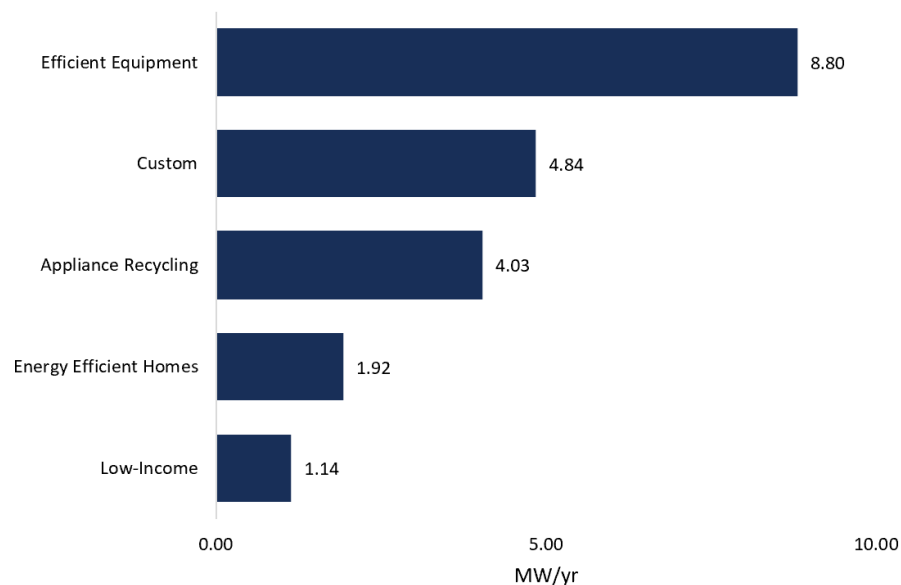
## 6. Summary of Peak Demand Impacts by Program Component

Act 129 defines peak demand savings from energy efficiency as the average expected reduction in electric demand from 2:00 p.m. to 6:00 p.m. (Eastern Daylight Time) 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. PPL Electric Utilities uses the following line loss percentages/multipliers by sector:<sup>9, 10</sup>

- Residential = 1.0875
- Small C&I = 1.0875
- Large C&I = 1.0420
- GNE = 1.0791

Figure 8 summarizes the PYRTD-reported gross peak demand savings by energy efficiency program component for PY17.

**Figure 8. PY17 RTD Gross Peak Demand Savings by Program Component (System Level)**



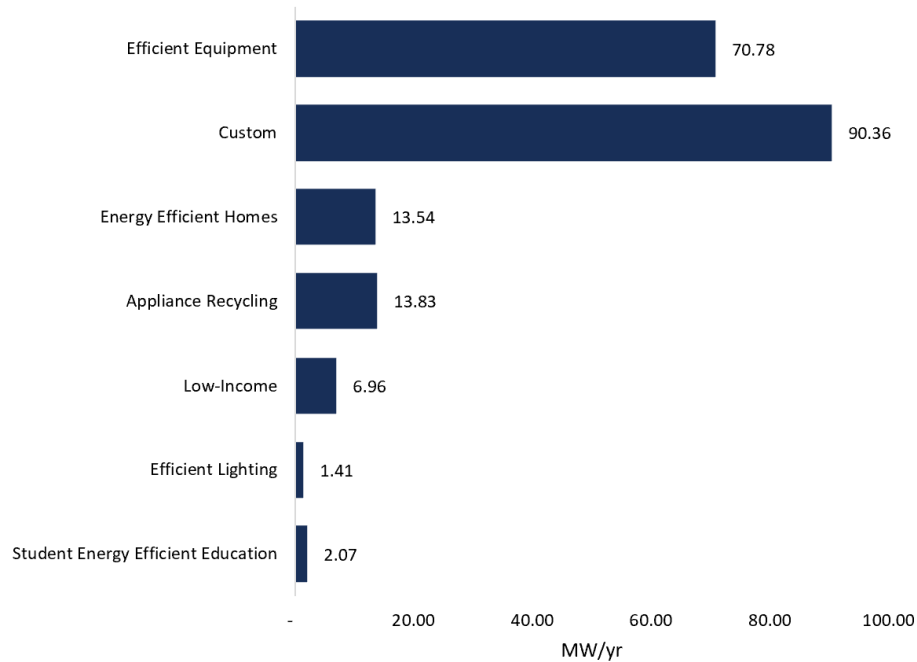
Note: The sum of individual program component savings may not equal total due to rounding.

<sup>9</sup> Pennsylvania Public Utility Commission. February 2021. *Technical Reference Manual*. Act 129 Energy Efficiency and Conservation Program & Act 213 Alternative Energy Portfolio Standards.

<sup>10</sup> For GNE records in PY17, the line loss multiplier was calculated as a blended rate of 1.0791 using the proportion of reported demand reductions of the residential, low-income, and small C&I sectors compared to the large C&I sector (81% and 19%, respectively). Cadmus applied a blended rate of 1.0788 to GNE records in PY13, a blended rate of 1.0719 in PY14, a blended rate of 1.0726 in PY15, and a blended rate of 1.068 in PY16.

Figure 9 summarizes PSA gross peak demand savings by energy efficiency program component for Phase IV of Act 129. PSA savings include verified gross peak demand savings from previous program years, unverified peak demand savings from PY15 and PY16, and the PYTD peak demand savings from the current program year.

**Figure 9. Phase IV PSA Gross Peak Demand Savings by Program Component (System Level)**



Note: VTD savings were increased by 0.17 MW/year for Energy Efficient Homes.  
The sum of individual program component savings may not equal the total due to rounding.

Table 6 summarizes the system-level peak demand impacts by program and component through the current reporting period.

**Table 6. System-Level Peak Demand Savings by Program Component (MW/Year)**

Program Component	PYRTD	RTD	VTD	PY15 Unverified	PY16 Unverified	PSA <sup>(1)</sup>
<b>Low-Income</b>						
Low-Income	1.14	7.39	5.82	-	-	6.96
<b>Residential</b>						
Appliance Recycling	4.03	14.09	9.80	-	-	13.83
Efficient Lighting	-	1.38	1.41	-	-	1.41
Energy Efficient Homes	1.92	15.14	10.16 <sup>(2)</sup>	0.0005	1.45	13.54
Home Energy Report	-	-	-	-	-	-
Student Energy Efficient Education	-	2.30	2.07	-	-	2.07
<b>Residential Sub-Total<sup>(1)</sup></b>	<b>5.95</b>	<b>32.91</b>	<b>23.44 <sup>(2)</sup></b>	<b>0.0005</b>	<b>1.45</b>	<b>30.85</b>
<b>Non-Residential</b>						
Custom	4.84	92.46	85.09	-	0.42	90.36
Efficient Equipment	8.80	75.60	61.98	-	-	70.78
<b>Non-Residential Sub-Total <sup>(1)</sup></b>	<b>13.64</b>	<b>168.05</b>	<b>147.07</b>	<b>-</b>	<b>0.42</b>	<b>161.14</b>
<b>Portfolio Total <sup>(1)</sup></b>	<b>20.73</b>	<b>208.35</b>	<b>176.33 <sup>(2)</sup></b>	<b>0.0005</b>	<b>1.88</b>	<b>198.95</b>
Carry-Over Savings from Phase III	-	-	-	-	-	-
<b>Adjusted Portfolio Total <sup>(1)</sup></b>	<b>20.73</b>	<b>208.35</b>	<b>176.33 <sup>(2)</sup></b>	<b>0.0005</b>	<b>1.88</b>	<b>198.95</b>
<sup>(1)</sup> Totals may not sum due to rounding.						
<sup>(2)</sup> VTD savings for Energy Efficient Homes in the PY16 Annual Report were increased by 0.17 MW/year following a review by the SWE.						

## 7. Summary of Finances

This section provides an overview of expenditures associated with PPL Electric Utilities’ portfolio and recovery of those costs from ratepayers.

### 7.1. Program and Portfolio Financials

Table 7 summarizes program-specific and portfolio total finances through the end of Q2 for PY17. The columns in Table 7 are adapted from the list of Program Cost Elements in the PA PUC’s EE&C plan template for Phase IV.<sup>11</sup>

Thus far in PY17, 50% of all EE&C plan expenditures were incentives paid to participants and trade allies. The dollar amounts are based on EDC tracking of expenditures, with no adjustments to account for inflation.<sup>12</sup> PPL Electric Utilities uses a separate accounting system for financial reporting, so totals in these tables may not match those reported in PPL Electric Utilities’ participant tracking database.

Additional notes for table values include the following:

- The incentives column includes rebates, point-of-sale buydowns, kits, and direct install materials and labor.
- The EDC materials, labor, and administration column includes costs associated with an EDC’s own employees.
- ICSP materials, labor, and administration column includes the costs of program implementation contractor and any other outside vendors that an EDC employs to support program delivery and evaluation.

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<sup>11</sup> Pennsylvania Public Utility Commission. September 9, 2020. *Implementation of Act 129 of 2008—Phase IV Energy Efficiency and Conservation Plan Template, Docket No. M-2020-3015228*. <https://www.puc.pa.gov/pcdocs/1676672.docx>

<sup>12</sup> The cost-recovery of program expenses through riders generally happens promptly so that costs are being recovered from ratepayers in the same dollars that they are incurred.



**Table 7. Program Year to Date Financials (\$1,000)**

Program	Incentives	EDC Materials, Labor, and Administration	ICSP Materials, Labor, and Administration	Total Cost <sup>(1)</sup>
Non-Residential	\$7,541	\$67	\$4,772	\$12,381
Low-Income	\$2,447	\$74	\$1,682	\$4,203
Residential	\$3,768	\$29	\$2,818	\$6,616
Common Portfolio Costs <sup>(2)</sup>	\$0	\$661	\$3,813	\$4,474
<b>Portfolio Total <sup>(1)</sup></b>	<b>\$13,756</b>	<b>\$832</b>	<b>\$13,086</b>	<b>\$27,674</b>
SWE Costs <sup>(3)</sup>	\$0	\$0	\$0	\$264
<b>Total <sup>(1)</sup></b>	<b>\$13,756</b>	<b>\$832 <sup>(3)</sup></b>	<b>\$13,086</b>	<b>\$27,938</b>

<sup>(1)</sup> Total may not sum due to rounding.  
<sup>(2)</sup> Common portfolio costs are costs applicable to more than one customer class or more than one program or that provide portfolio-wide benefits. These costs include PPL Electric Utilities' labor and materials, legal review, PPL Electric Utilities' tracking system, EE&C plan development, etc.  
<sup>(3)</sup> SWE costs are outside of the 2% spending cap.

Table 8 summarizes program-specific and portfolio total finances since the inception of Phase IV. Thus far in Phase IV, 55% of expenditures have been incentives paid to participants and trade allies.

**Table 8. Phase IV to Date Financials (\$1,000)**

Program	Incentives	EDC Materials, Labor, and Administration	ICSP Materials, Labor, and Administration	Total Cost <sup>(1)</sup>
Non-Residential	\$78,641	\$727	\$35,716	\$115,084
Low-Income	\$18,742	\$824	\$14,361	\$33,928
Residential	\$29,476	\$673	\$22,915	\$53,063
Common Portfolio Costs <sup>(2)</sup>	\$0	\$10,166	\$18,895	\$29,060
<b>Portfolio Total <sup>(1)</sup></b>	<b>\$126,859</b>	<b>\$12,390</b>	<b>\$91,887</b>	<b>\$231,135</b>
SWE Costs <sup>(3)</sup>	\$0	\$0	\$0	\$1,980
<b>Total <sup>(1)</sup></b>	<b>\$126,859</b>	<b>\$12,390</b>	<b>\$91,887</b>	<b>\$233,115</b>

<sup>(1)</sup> Total may not sum due to rounding.  
<sup>(2)</sup> Common portfolio costs are costs applicable to more than one customer class or more than one program or that provide portfolio-wide benefits. These costs include PPL Electric Utilities' labor and materials, legal review, tracking system, EE&C plan development, etc.  
<sup>(3)</sup> SWE costs are outside of the 2% spending cap.

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 finalized. TRC test results for PY17 will be presented in the final annual report to the PA PUC on September 30, 2026, 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. PPL Electric Utilities' cost-recovery charges are organized separately by 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 Table 9 and Section 2.3. For example, the low-income customer segment is a subset of PPL Electric Utilities' residential tariff(s) and therefore not listed in Table 9.

**Table 9. EE&C Plan Expenditures by Cost-Recovery Category<sup>13</sup>**

Cost-Recovery Sector	Rate Classes Included	PYTD Spending (\$1000)	P4TD Spending (\$1000)
Residential and Low-Income	Residential (primarily RS)	\$10,959	\$89,805
Small C&I	Small C&I (primarily GS1 & GS3)	\$5,066	\$63,115
Large C&I	Large C&I (primarily LP4 & LP5)	\$5,398	\$33,628
GNE	Residential, Small C&I, and Large C&I	\$2,751	\$22,366
Common costs <sup>(1)</sup>	-	\$3,764	\$24,201
<b>Portfolio Total <sup>(2)</sup></b>	-	<b>\$27,938</b>	<b>\$233,115</b>

<sup>(1)</sup> Includes costs not collected at the sector level. These costs are allocated to the sectors at the end of the program year.

<sup>(2)</sup> Totals may not sum due to rounding.

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<sup>13</sup> Includes SWE costs.