



PPL EU Stakeholder Meeting – Energy Efficiency & Conservation

February 27, 2025

Agenda

- **Commitment to Safety**
- **Phase V of Act 129**
- **Portfolio Overview**
- **Program and Components**
 - Residential Program Update
 - Low Income Program Update
 - Non-Residential Program Update
 - PJM Forward Capacity Market Update
- **Q&A, Discussion**
 - You will be muted during the meeting, please use Q&A/chat function
- **Wrap Up**



Commitment to Safety

Cooking Safety

It is important to be safe when we cook – it is the number one cause of home fires (47%)

- Keep a fire extinguisher nearby and do not disable smoke or carbon monoxide detectors while cooking.
- Stay alert, wear close-fitting clothing, and keep a pan lid, potholders or oven mitts nearby
- Turn pot or pan handles toward the back of the stove
- **Microwave:** Use microwave safe cookware that allows steam to escape and let food rest before removing
- **Frying:** Use a splatter-guard and stay in the kitchen
- **Simmering, baking, roasting:** Check often and remain in the home. Recommend using a timer.
- When finished, check to make sure all burners/oven is off.



Phase V of Act 129

Phase V Preparation

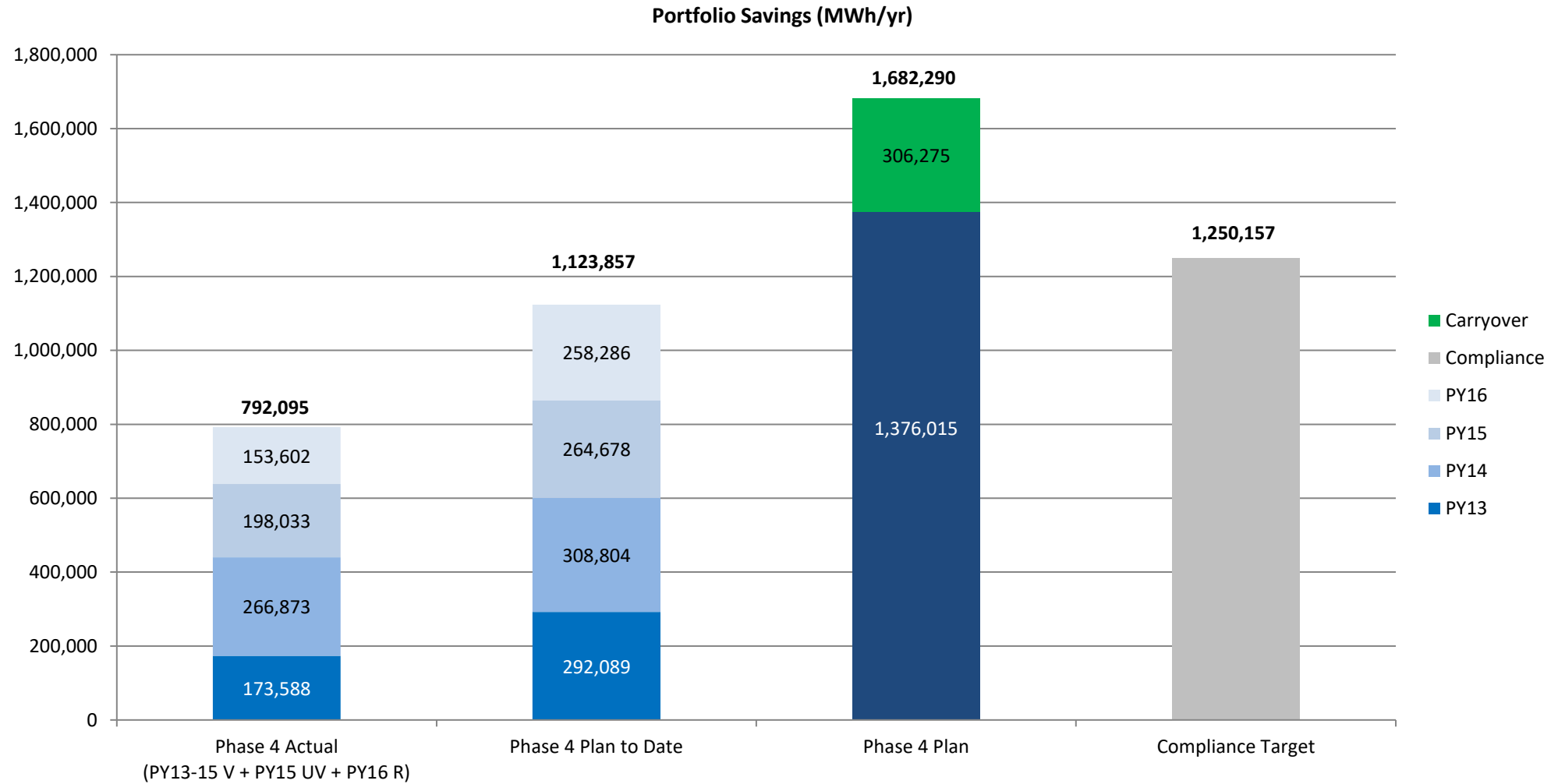
- PPL EU team attended the Market Potential Study Stakeholder Meeting and is reviewing the Tentative Implementation Order released on February 20, 2025.

Stakeholder Input

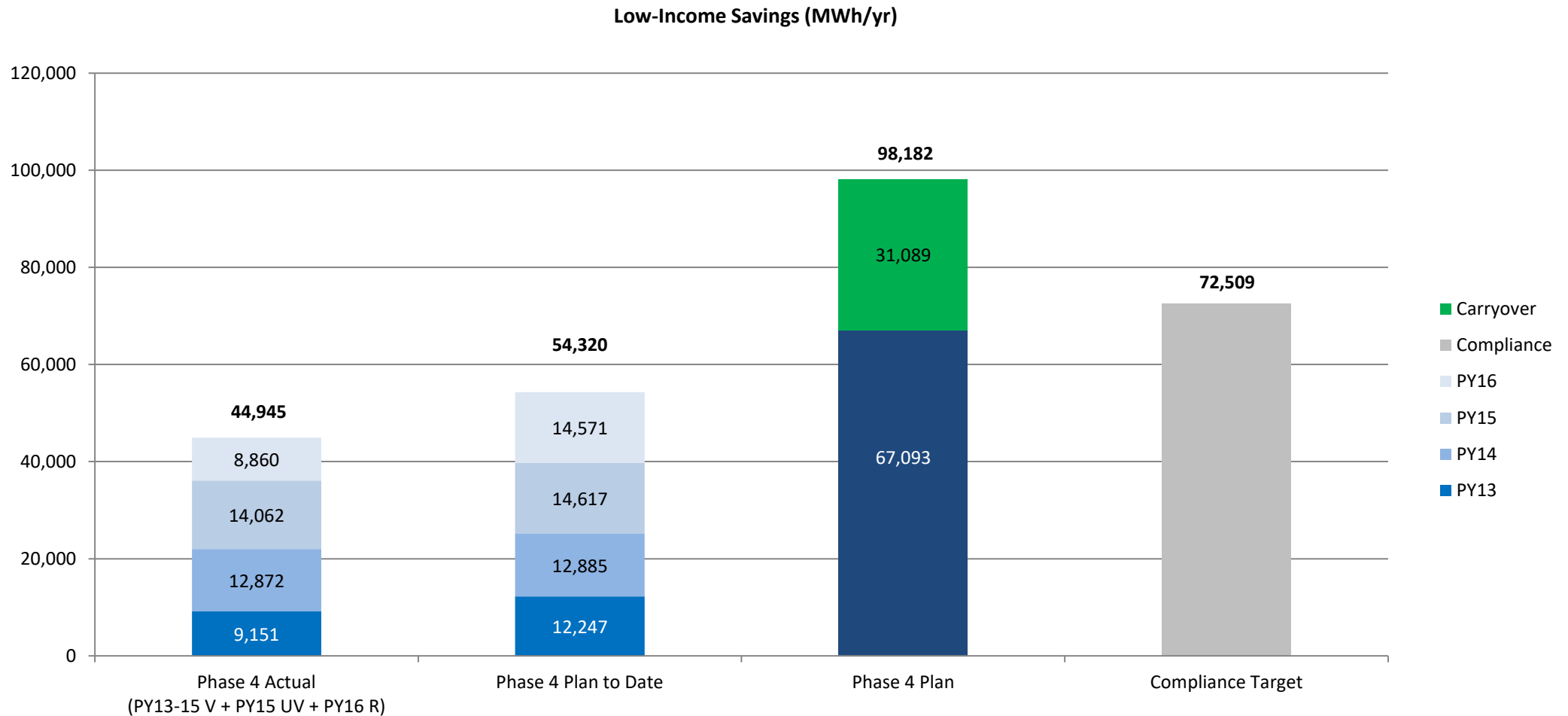
- **Priorities:** What are your constituent priorities for the Phase V program cycle?
 - Sector (residential, resource constrained, non-residential, small or large business, etc.) and/or segment (rural, urban, industry, etc.) priorities?
 - Challenges and opportunities you see these sectors/segments facing?
- **Programs:** What program (energy efficiency, DR, renewable energy, etc.) priorities do you have?
 - Challenges and opportunities facing these programs?
- **Pilots:** What is your level of interest in potential pilots and if so, what would you like to see explored?

Portfolio Overview

Overview: Portfolio Savings (MWh)

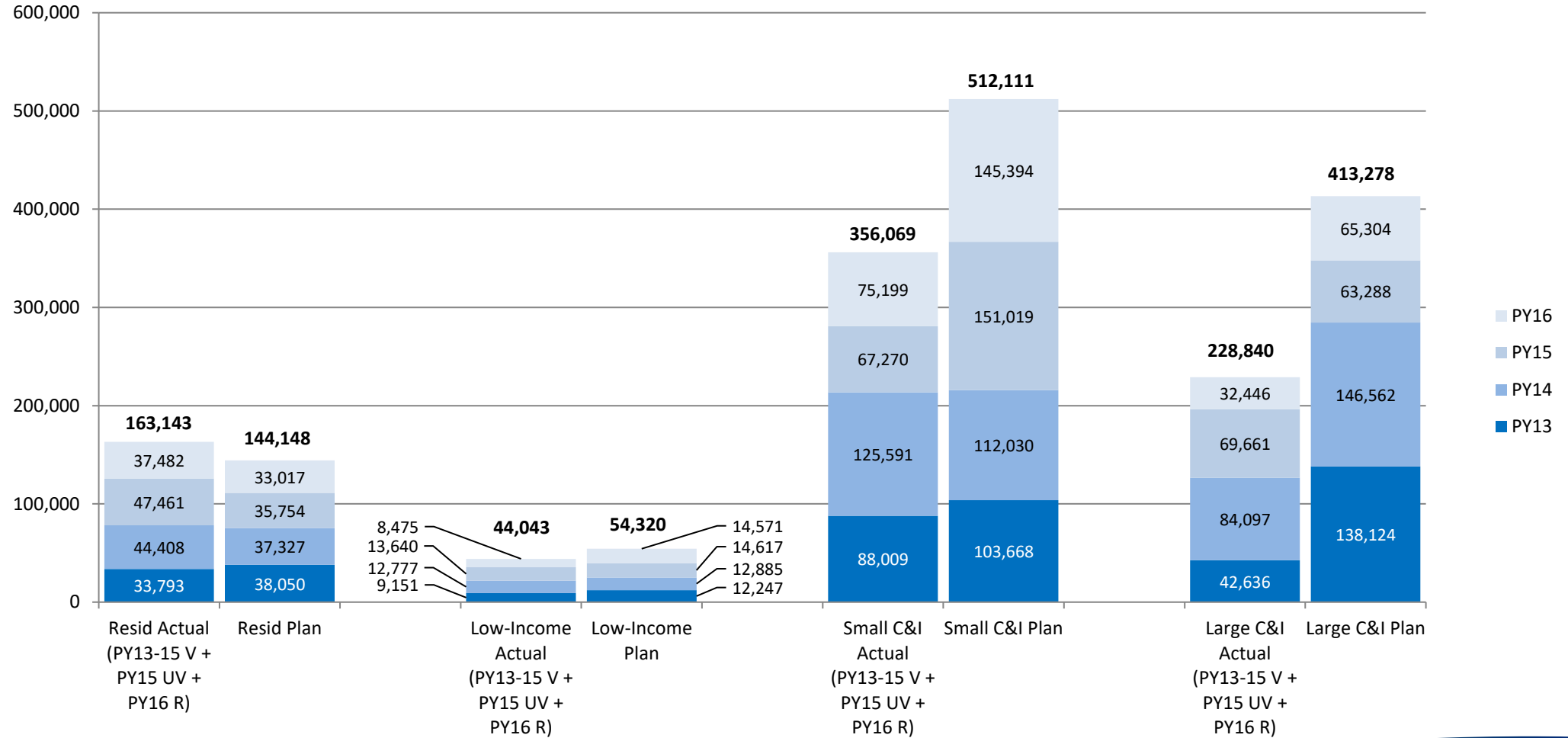


Overview: Low-Income Savings (MWh)

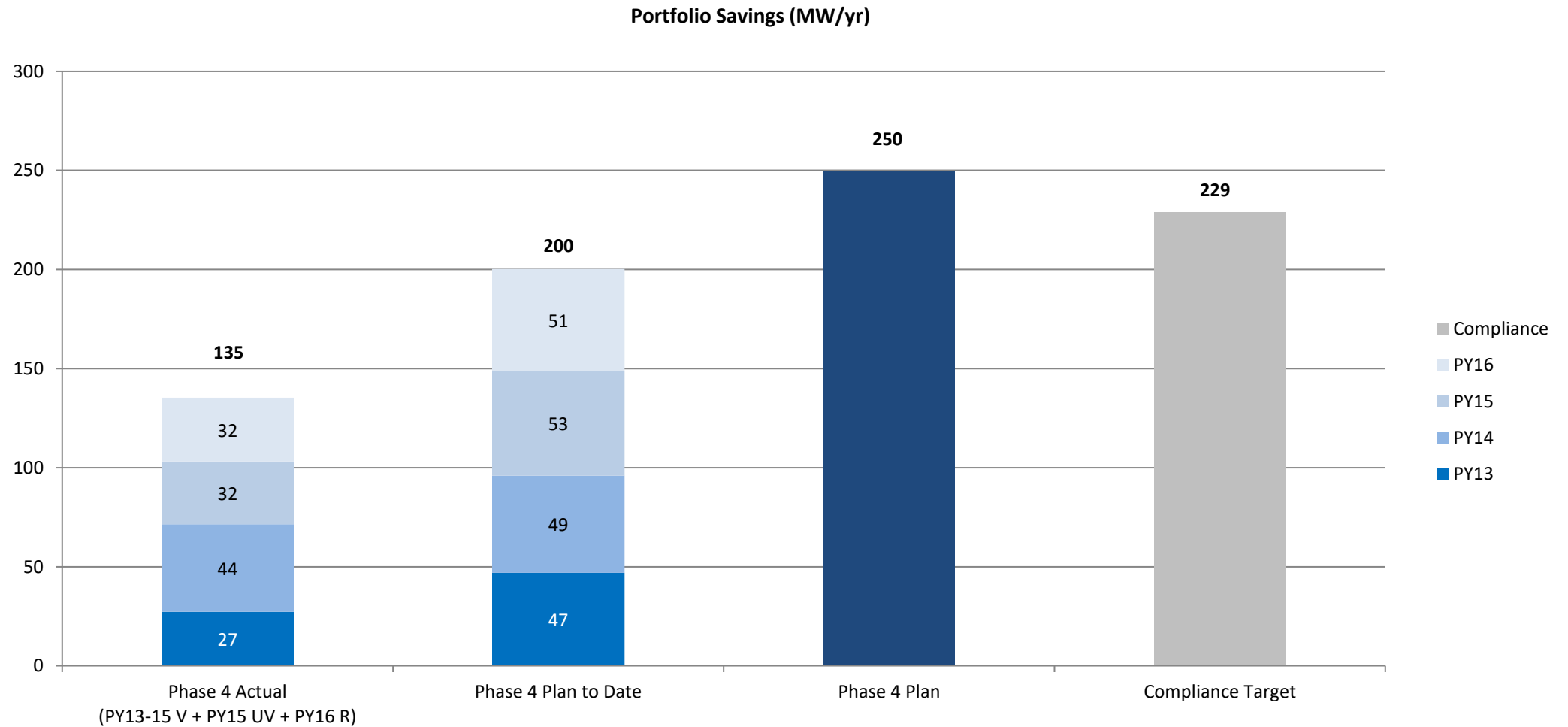


Overview: Sector Savings (MWh)

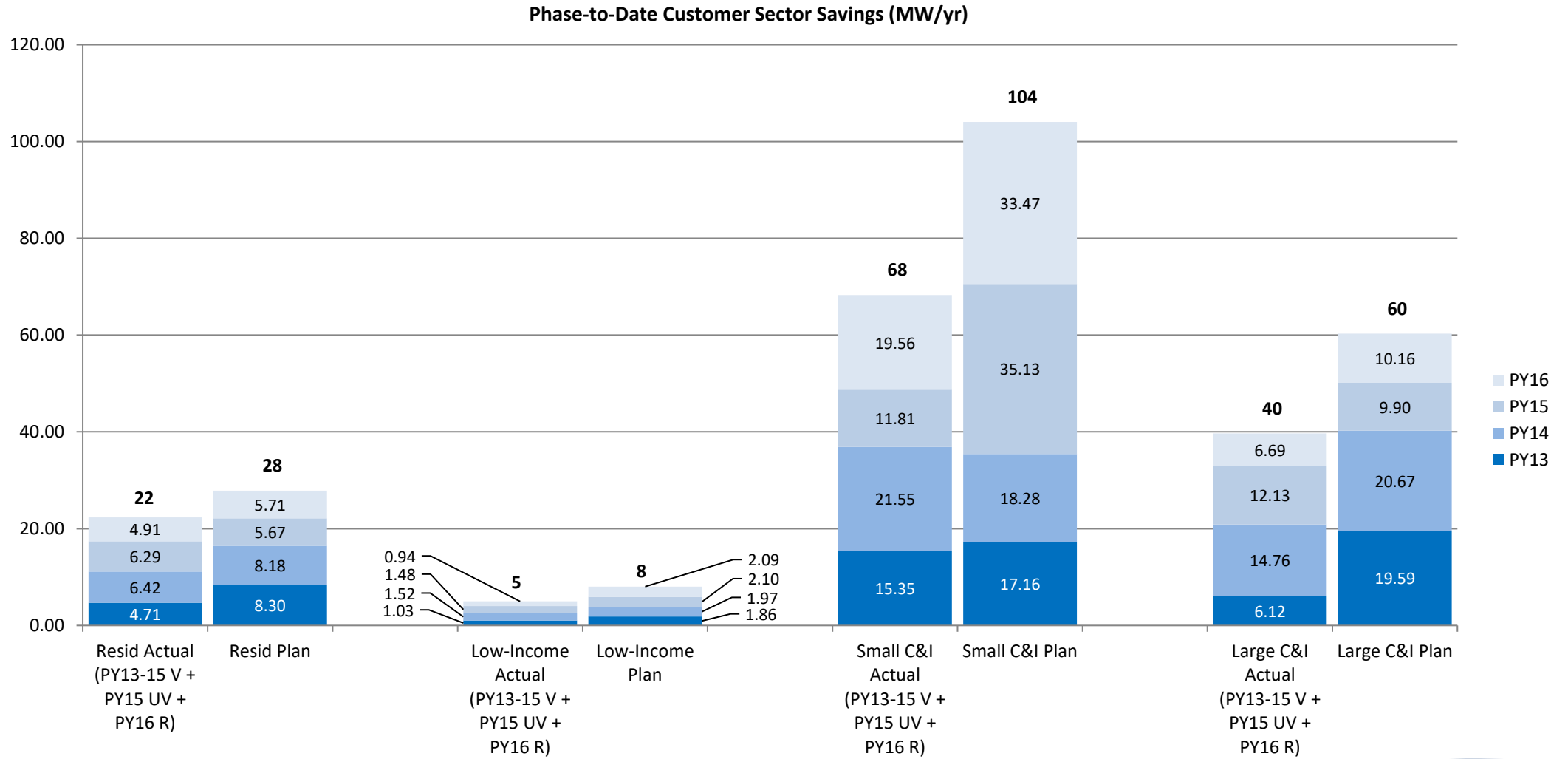
Phase-to-Date Customer Sector Savings (MWh/yr)



Overview: Portfolio Savings (MW)

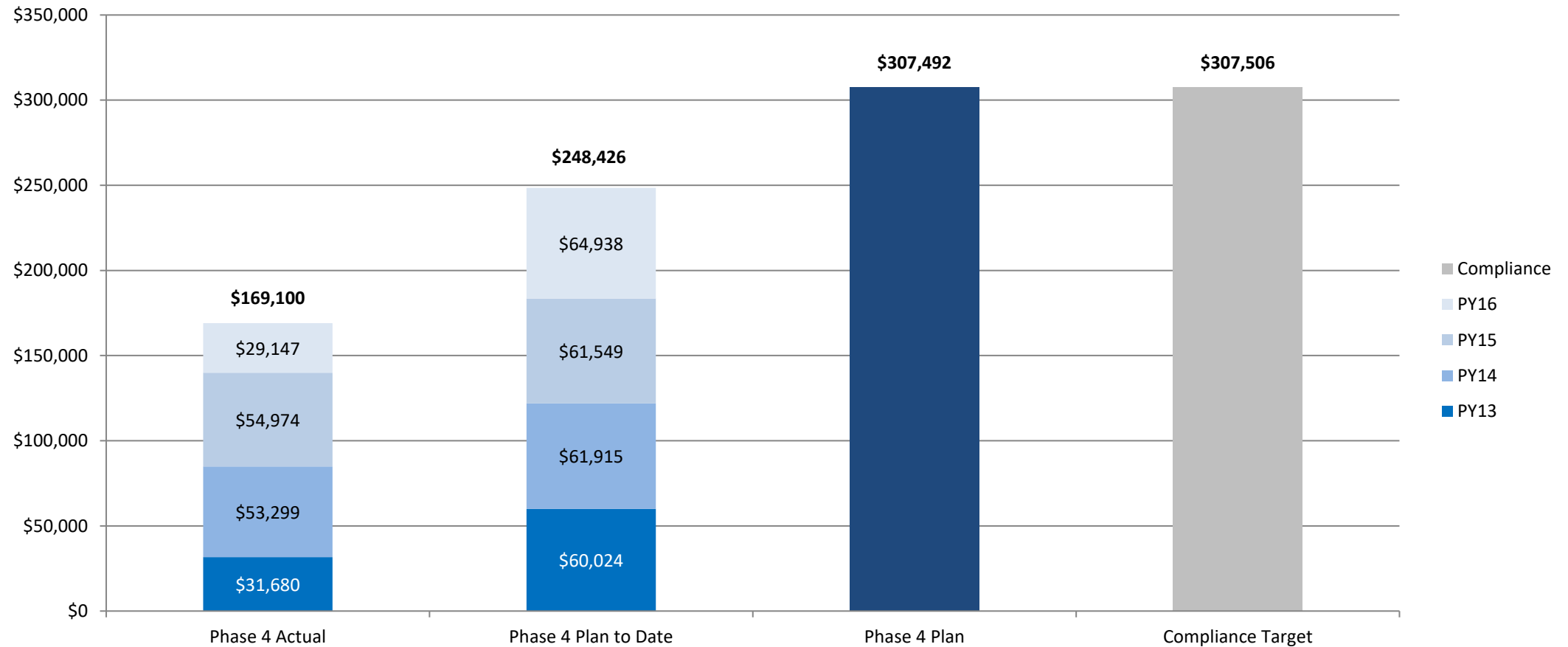


Overview: Sector Savings (MW)



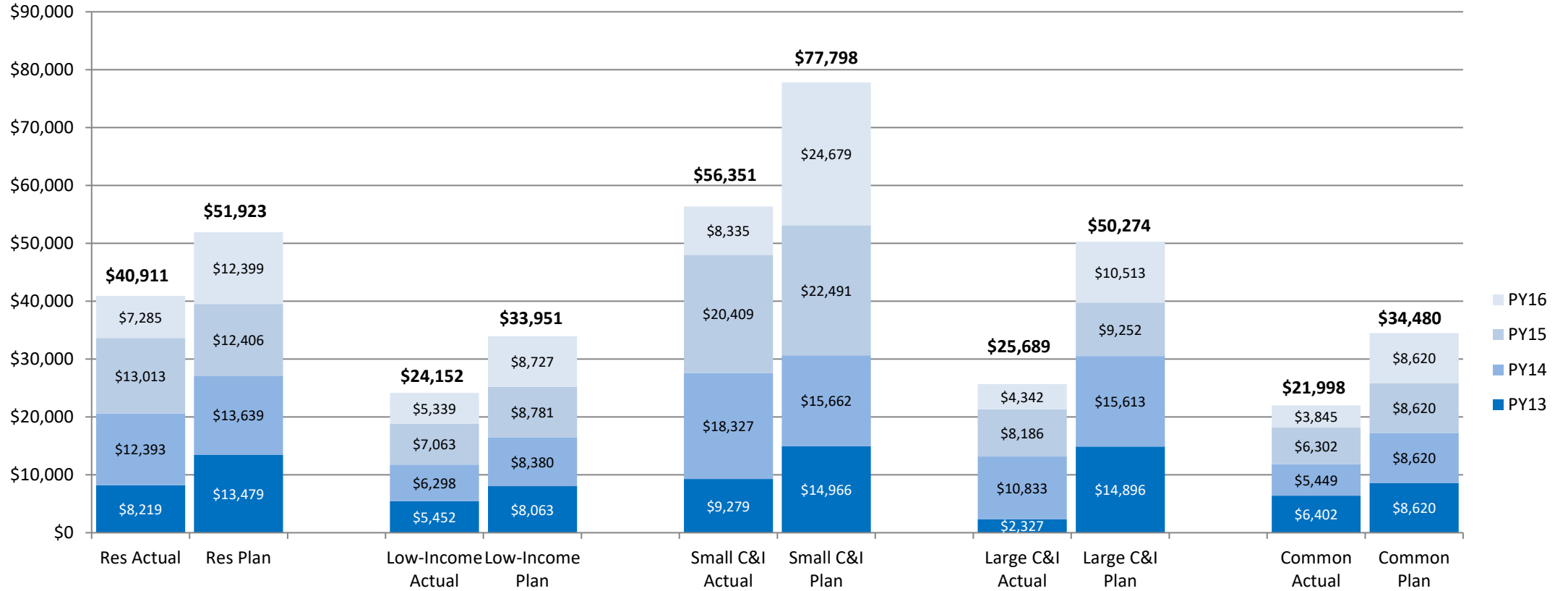
Overview: Portfolio Costs

Portfolio Costs (\$1000)



Overview: Sector Costs

Phase-to-Date Customer Sector Costs (\$1,000)



Programs and Components: Residential Program Update

Residential Program Components

Efficient Homes



Energy Savings

PY13-15: 76,871
PY16: 28,483*

PTD:

105,354 MWh*

Peak Demand

PY13-15: 8.15
PY16: 2.00*

PTD:

10.15 MW*

Appliance Recycling



Energy Savings

PY13-15: 25,035
PY16: 6,425

PTD:

31,460 MWh

Peak Demand

PY13-15: 6.27
PY16: 2.00

PTD:

8.27 MW

EE Lighting



Energy Savings

PY13-15: 8,969
PY16: - -

PTD:

8,969 MWh

Peak Demand

PY13-15: 1.41
PY16: - -

PTD:

1.41 MW

Student Energy Ed



Energy Savings

PY13-15: 15,055
PY16: - -

PTD:

15,055 MWh

Peak Demand

PY13-15: 1.51
PY16: - -

PTD:

1.51 MW

*PY15 unverified savings included

Residential Program: Energy Efficient Homes



Energy Savings

PY13-15: 76,871
PY16: 28,483*

PTD:

105,354 MWh*

Peak Demand

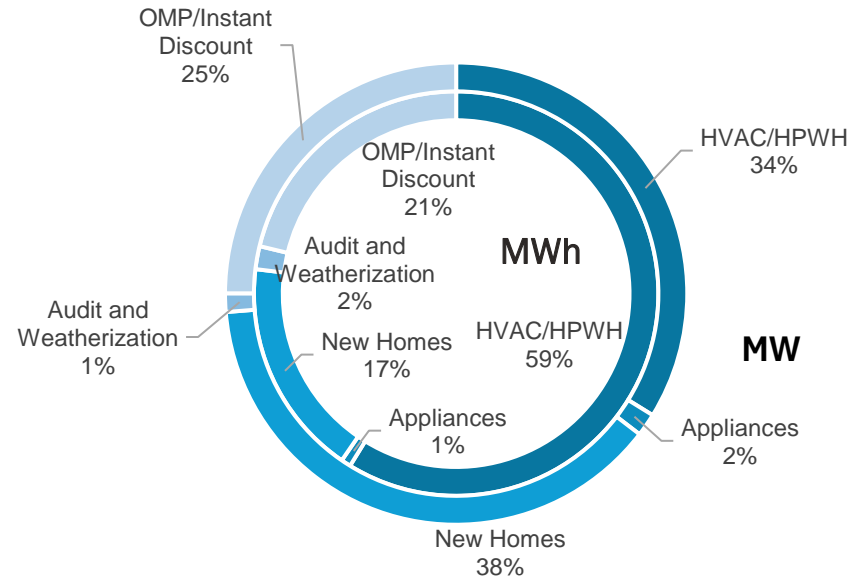
PY13-15: 8.15
PY16: 2.00*

PTD:

10.15 MW*

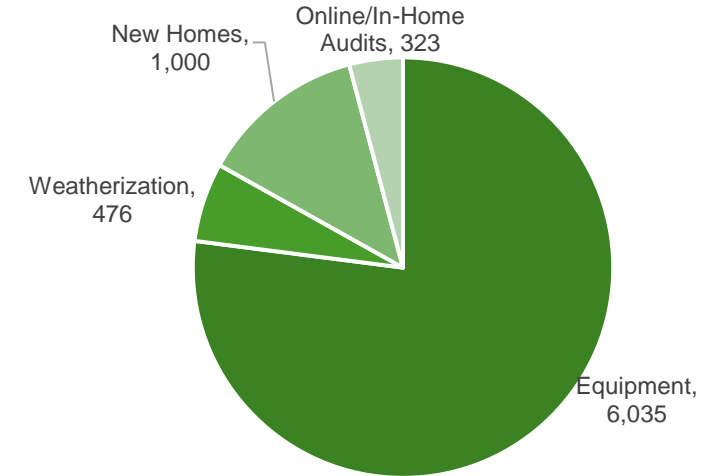
*PY15 unverified savings included

PY16 Savings by Category



Category	MWh	MW
Equipment: HVAC/HPWH	10,163	0.65
Equipment: Appliances	134	0.03
New Homes	2,988	0.73
Audit & Weatherization	317	0.02
OMP/Instant Discount	3,652	0.48
Total	17,254	1.91

PY16 Participation by Category



Category	n	%
Equipment	6,035	77%
Weatherization	476	6%
New Homes	1,000	13%
Online/In-Home Audits	323	4%
Total	7,834	

Participation does not include 142,038 products purchased through Instant Discount/OMP

Residential Program: EE Homes – New Homes Channel



Energy Savings

PY13-15: 10,453
PY16: 2,988

PTD:

13,441

Peak Demand

PY13-15: 2.42
PY16: 0.73

PTD:

3.15 MW

Homes Built PY16

- 1,000 homes built
- Over \$966,600 in incentives
- Limited-Time Offer Heat Pump Water Heater Incentives
 - Cold-Climate ASHP
 - HPWH
 - Additional bonus for installation of both



There are currently 104 builders participating in the program.

Residential Program: EE Homes – New Homes Channel



Spotlight Home – Williamstown, Constructed by Landmark Homes

- Ground source heat pump/.95 EF electric water heater
- Projected to save 7,695 kWh per year, with kW savings of 0.808
- This home is 38% more efficient than a home built to minimum code requirements and achieved a HERS score of 54.
- \$2,300 in incentives

Residential Program: Zero Energy Ready Homes Pilot

Net Zero Energy Ready Homes

- Demonstrating implementation of residential new construction standards
- Homes satisfy the DOE Zero Energy Ready Home certification and providing financial and technical support to 5 new construction homes
- Conducting virtual and in-person tours on each home and webinars on “behind the wall” upgrades and educational video

Updates

- Completed 5 pilot model homes
- Three additional model homes being built in PY16
 - Alden Homes, Lititz
 - Hutch Homes, Carlisle
 - Hutch Homes, Lewisberry

Residential Program: Zero Energy Ready Homes Pilot

Alden Homes – Lititz: HERS - 46



- First floor deck



- Unique 'walk-out' design



- Insulated Superior foundation

Hutch Homes – Carlisle: HERS - 40



- Façade with ZipR sheathing



- ERV ducting and insulated Superior foundation



- Blown-in fiberglass insulation, rockwool for soundproofing, and foamed attic

Hutch Homes – Lewisberry: HERS - 46



- Façade being finished



- Blown-in fiberglass insulation



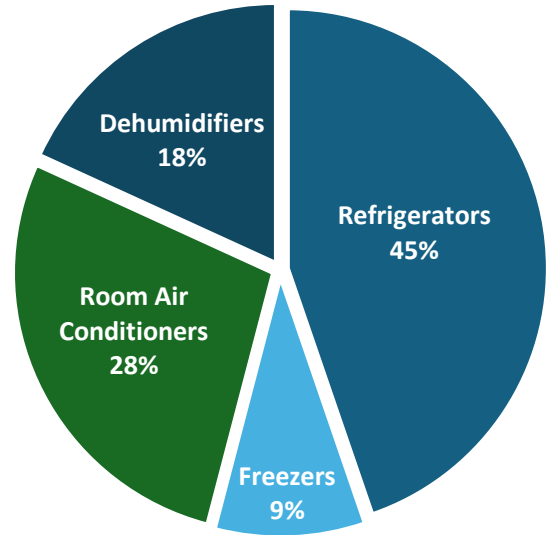
- Hard-ducted transitions and insulated Superior foundation

Residential Program: Appliance Recycling

Energy Savings
 PY13-15: 25,035
 PY16: 6,425
PTD:
31,460 MWh

Peak Demand
 PY13-15: 6.27
 PY16: 2.00
PTD:
8.27 MW

Units Collected PY16



Unit Type	Total
Refrigerators	4,491
Freezers	937
Room Air Conditioners	2,786
Dehumidifiers	1,825
Total	10,039



The Appliance Recycling component provides **convenient pick up and responsible recycling** of both large and small appliances

Residential Program: Student Energy Education



Energy Savings

PY13-15: 15,055
 PY16: - -

PTD:

15,055 MWh

Peak Demand

PY13-15: 1.51
 PY16: - -

PTD:

1.51 MW

- Fully subscribed in PY16
- Over 20,000 kits
- Focus on low-income schools
- Poster contest (K-8th)
- Innovation Challenge

Program	Grade Level
Bright Kids	2 nd – 3 rd
Take Action	5 th – 7 th
Innovation	9 th – 12 th



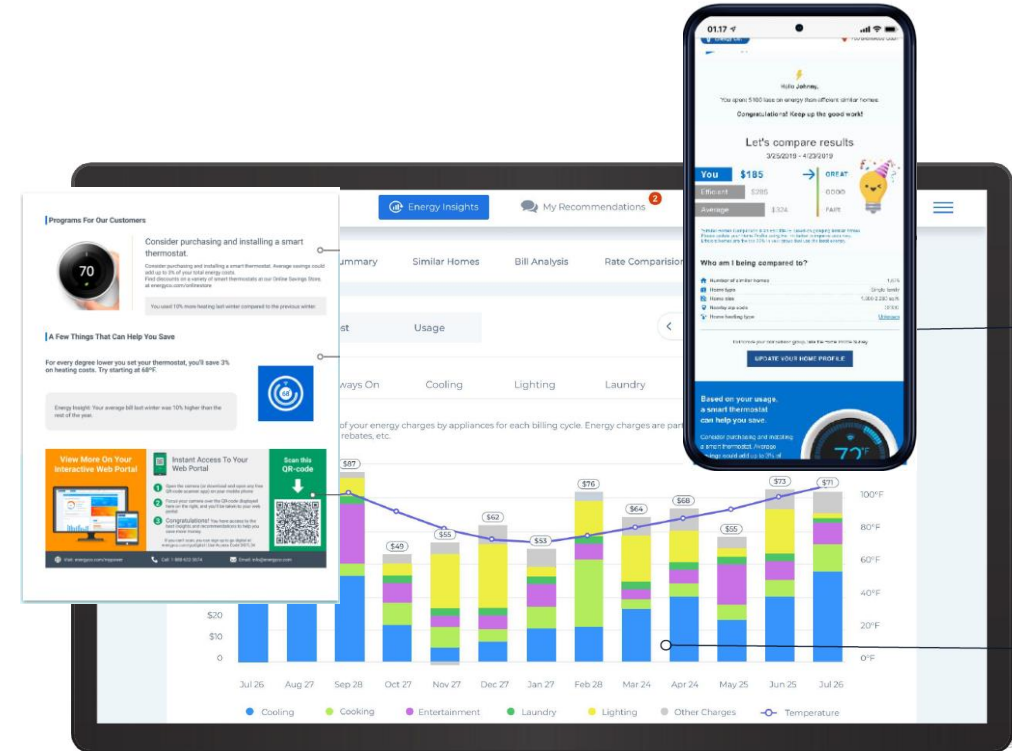
Residential Updates

Home Energy Reports (HERs)

- PPL EU launched HERs in PY16 and will continue through the end of the phase. The Company started with +150K customers and will increase to +350K customers in 2025.

Energy Analyzer

- PPL EU's launch of the Energy Analyzer web tool for all residential and small/medium-sized business customers was moved to late Q1 of 2025
 - Important education and program marketing tool.



Programs and Components: Low-Income Program Update

Low-Income Program: Status

Energy Savings

PY13-15: 36,084
 PY16: 8,860

PTD:
 44,944 MWh

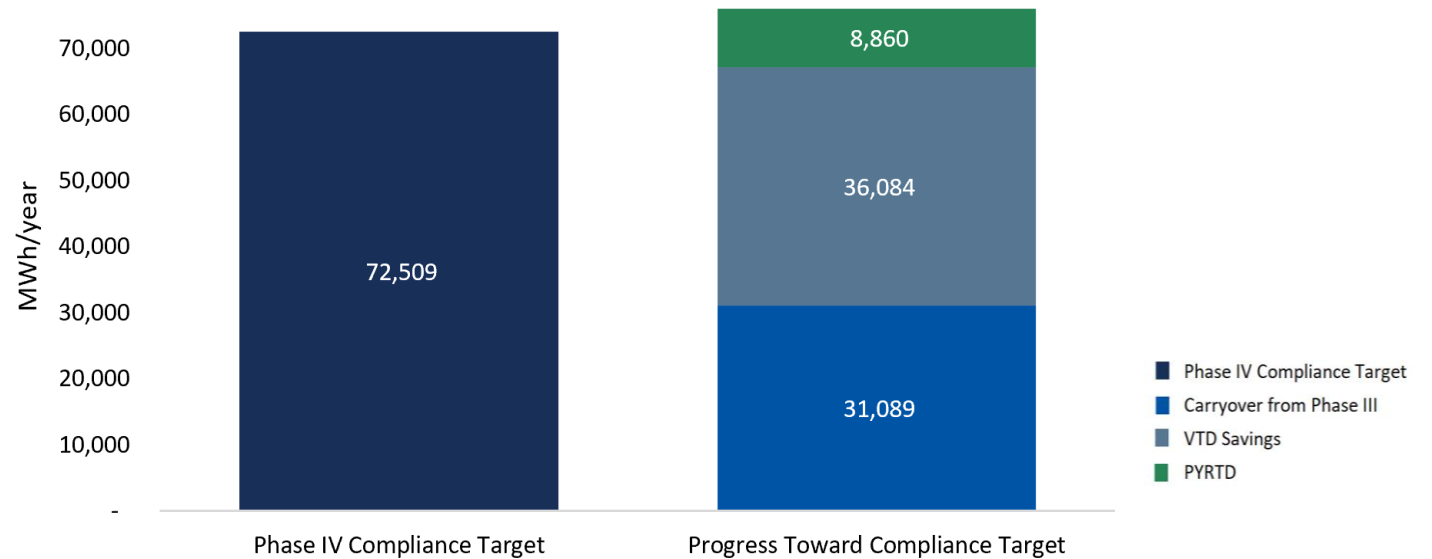
Peak Demand

PY13-15: 4.10
 PY16: 0.98

PTD:
 5.08 MW

Low-Income Carveout Success – With carry-over PPL EU has achieved 105% of the compliance target for Phase IV.

- There is no separate coincident peak demand target for low-income.



Low-Income Program: Updates

Customer Incentives

- \$3.69MM sector incentives provided to customers in PY16 – 65% of total costs.
 - \$13.54MM incentives provided phase-to-date through November 2024



Health and Safety Pilot

- Health and Safety Pilot budget is used as a bridge to comprehensive measures
- Approximately \$703,187 utilized phase-to-date
 - Plumbing repairs, stair repairs, expansion tanks, etc.

High Participation

- There were 17,212 unique participants in PY16 to date through Single Family, Multifamily and Welcome Kit recipients.
 - 83,793 participants phase-to-date through November 2024

Low-Income Program: Updates

Removing Barriers – PPL EU continues to offer weekend appointments for more flexible scheduling. PPL EU may offer customers self-schedule of assessments in certain cases.

- Customers continue to prefer in-person appointments.

Measure Availability – In the first half of PY16, 26% of all measures offered in the plan are available to qualified customers at no cost. The target is 10%.

Program Coordination – Effective coordination with assistance programs including targeted marketing and engagement activities for OnTrack customers.



Low-Income Program: Multifamily Focus

Multifamily Engagement

- PPL EU continued to expand multifamily unit assessments and measures during PY16.
- Dedicated CSP MF implementation team
- Awaiting guidance on IRA program from DEP and PA PUC

Individually Metered Results

- Completed 28 locations with 228 units
 - 1,235 customer units phase-to-date through November 2024

Master Metered Results

- Completed 9 locations with 925 units
 - 2,938 customer units phase-to-date through November 2024

Programs and Components: Non-Residential Program Update

Non-Residential Program Components

Efficient Equipment Component

Custom



Downstream

Energy Savings

PY13-15: 138,140

PY16: 15,641

PTD:

153,781 MWh

Peak Demand

PY13-15: 21.95

PY16: 2.78

PTD:

24.73 MW

Midstream

Energy Savings

PY13-15: 75,270

PY16: 11,487

PTD:

86,757 MWh

Peak Demand

PY13-15: 14.20

PY16: 2.69

PTD:

16.89 MW

Direct Discount

Energy Savings

PY13-15: 72,152

PY16: 4,778

PTD:

76,930 MWh

Peak Demand

PY13-15: 9.59

PY16: 0.83

PTD:

10.42 MW

Energy Savings

PY13-15: 190,918

PY16: 77,928*

PTD:

268,845 MWh*

Peak Demand

PY13-15: 35.98

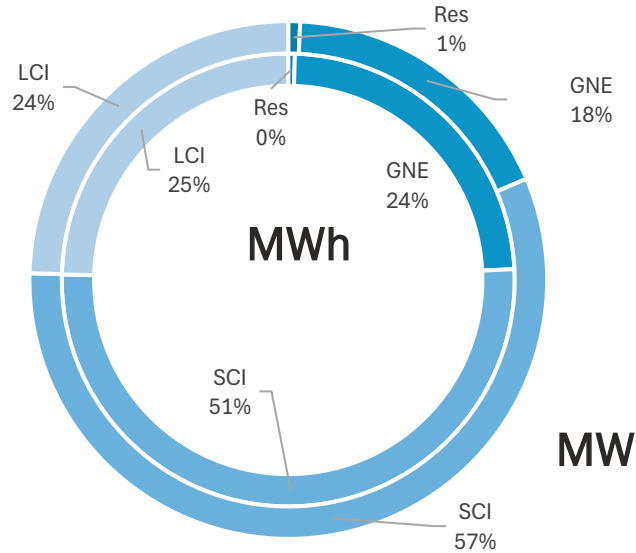
PY16: 20.83*

PTD:

56.81 MW*

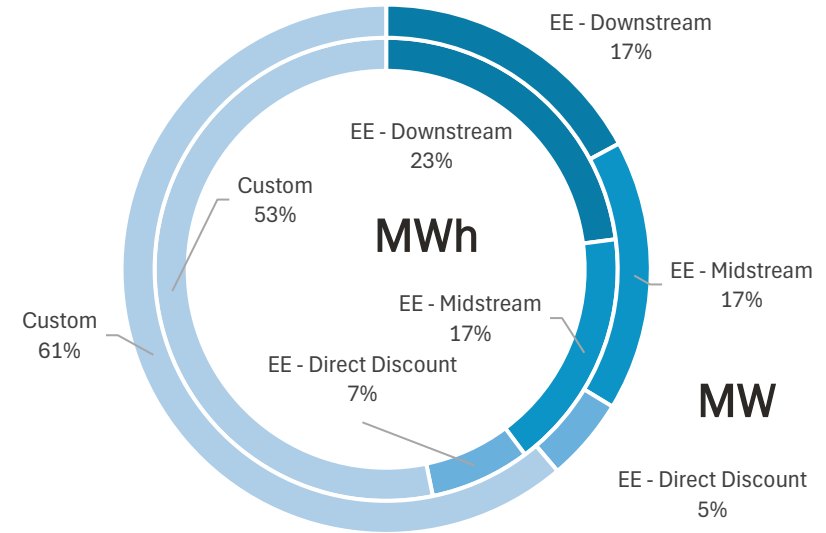
*PY15 unverified savings included

Non-Residential Program: PY16 Summary



Sector	MWh	MW
Res	320	0.12
GNE	16,212	2.90
SCI	34,901	9.22
LCI	16,788	3.99
Total	68,221	16.23

PY16 Energy Savings by Sector



Component/Channel	MWh	MW
Efficient Equipment - Downstream	15,641	2.78
Efficient Equipment - Midstream	11,487	2.69
Efficient Equipment - Direct Discount	4,778	0.83
Custom	36,315	9.94
Total	68,221	16.24

PY16 Energy Savings by Component

Non-Residential Program: Efficient Equipment – Downstream



Downstream Energy Savings

PY13-15: 138,140

PY16: 15,641

PTD:

153,781 MWh

Peak Demand

PY13-15: 21.95

PY16: 2.78

PTD:

24.73 MW

PY16 reported energy savings by project type:

Lighting

- 14,348 MWh/yr.
- 2.62 MW/yr.

Equipment

- 1,293 MWh/yr.
- 0.16 MW/yr.



\$972,080 – incentives provided to customers

Non-Residential Program: Efficient Equipment – Midstream



Midstream

Energy Savings

PY13-15: 75,270

PY16: 11,487

PTD:

86,757 MWh

Peak Demand

PY13-15: 14.20

PY16: 2.69

PTD:

16.89 MW

PY16 channel performance:

- 23 distributors in PY16
- Lighting reported PY16 savings of 11,262 MWh/yr.
- Ag reported PY16 savings of 202 MWh/yr.
- Food Service PY16 reported savings of 23 MWh/yr.



\$582,957 – incentives provided to customers

Non-Residential Program: Efficient Equipment – Direct Discount

Direct Discount

Energy Savings

PY13-15: 72,152

PY16: 4,778

PTD:

76,930 MWh

Peak Demand

PY13-15: 9.59

PY16: 0.83

PTD:

10.42 MW

PY16 reported energy savings by project type:

- Lighting PY16 reported savings of 3,430 MWh/yr.
- Equipment PY16 reported savings of 1,348 MWh/yr.



\$563,715– incentives provided to customers

Non-Residential Program: Custom

Energy Savings

PY13-15: 190,918

PY16: 77,928*

PTD:

268,845 MWh*

Peak Demand

PY13-15: 35.98

PY16: 20.83*

PTD:

56.81 MW*

PY16 component performance:

- Agricultural projects PY16 reported savings of 350 MWh/yr.
- Solar projects PY16 reported savings of 23,358 MWh/yr.
- Other custom PY16 reported savings of 12,608 MWh/yr.

* PY15 unverified savings 41,612 MWh/yr. and 10.88 MW/yr.



\$5,800,165 – incentives provided to customers

Non-Residential Program Updates

Recent Updates:

- Incentives were increased July 2024 for interior lighting and equipment measures in the Direct Discount channel
- Custom incentives were increased at the start of PY16
- HVAC Tune-Ups were launched in PY16
- Updates have been made to solar projects M&V with the release of the solar IMP

Upcoming Changes:

- Effective March 1, 2025, incentives for LCI customers are increasing (excluding solar and CHP)
- Custom projects will be eligible in the Direct Discount channel
- Expansion to midstream channel

Building Operator Certification (BOC)

- Launched BOC level 1 program in partnership with Pennsylvania College of Technology
- PPL EU Cohort began 9/10/24 – 11/26/24
 - 19 customers and trade allies enrolled in the 12-week course
 - Additional applications at customer facilities are underway
- SPRING Cohort registration is open
 - 3/4/25 – 4/22/25



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The Building Operator Certification (BOC) is the Nation's leading competency-based training and credentialing program for building engineers and maintenance personnel. Graduates make their buildings more comfortable, efficient and environmentally friendly, thanks to skills they master in our classes.

BOC teaches building operators to find practical, low-cost and no-cost efficiency solutions by working with existing systems. Independent research shows that BOC operators consistently save money and energy in their facilities — up to \$20,000 a year — thanks to energy conservation projects, air quality improvements and other initiatives. Plus, the savings are instant and continuous.

Programs and Components: PJM Forward Capacity Market Update

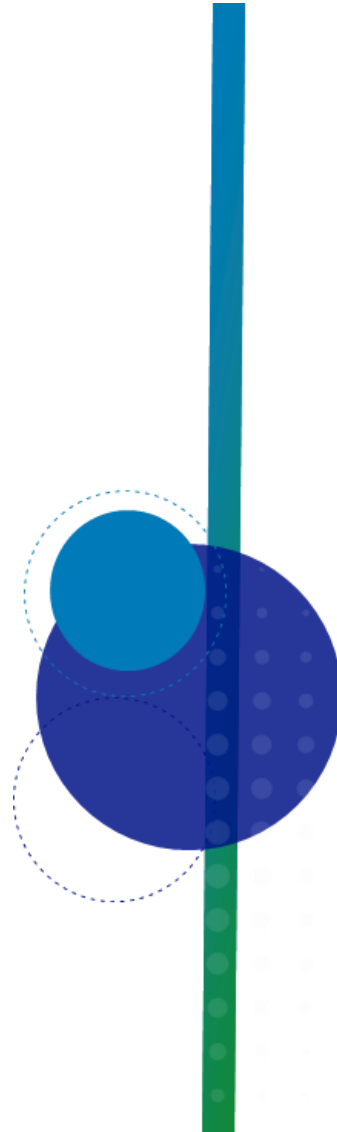
PJM Forward Capacity Market Service

Updates

- Updates to PJM rules have precluded energy efficiency as a resource for future auctions following the next event.
- PPL EU is determining the level of the final bid.
- There is no expectation of PJM FCM bidding or participation in Phase V for EE&C

Questions & Answers

Thank You!



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