



PPL Energy Efficiency Update  
PPL Stakeholder Meeting  
July 8, 2020

## Please Note:

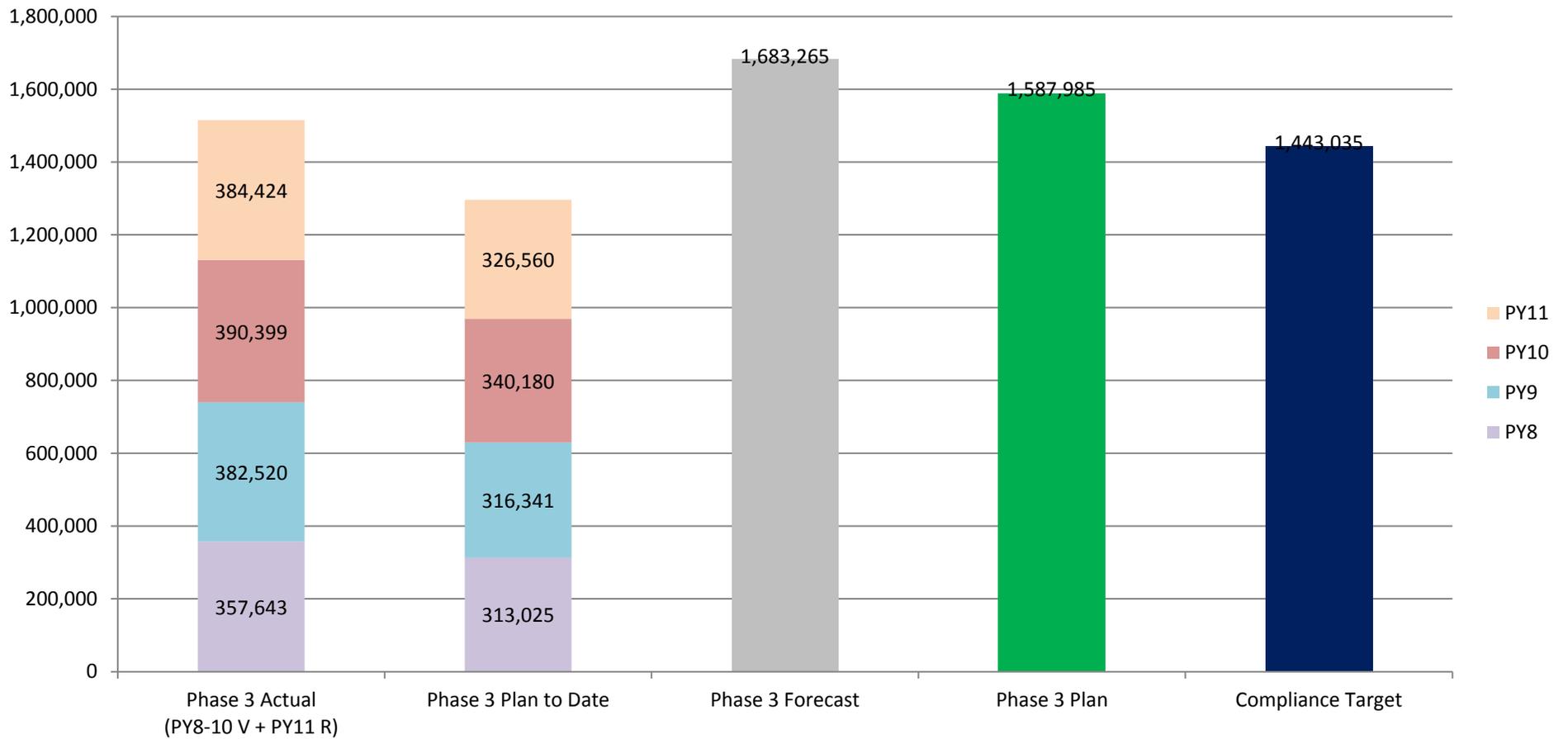
- Audience is muted: Please use Chat Box for questions
- We will unmute for Q&A Session at end of webinar

# Agenda

- **Overview:** Dirk Chiles
- **Residential Update:** Mary Ann Kelly-Merenda
- **Low Income Update:** Sean Pressmann
- **Non-Residential Update:** Heather Bash
- **Demand Response Update:** Sean Pressmann
- **Question and Comment Period:** All
- **Closing:** Dirk Chiles

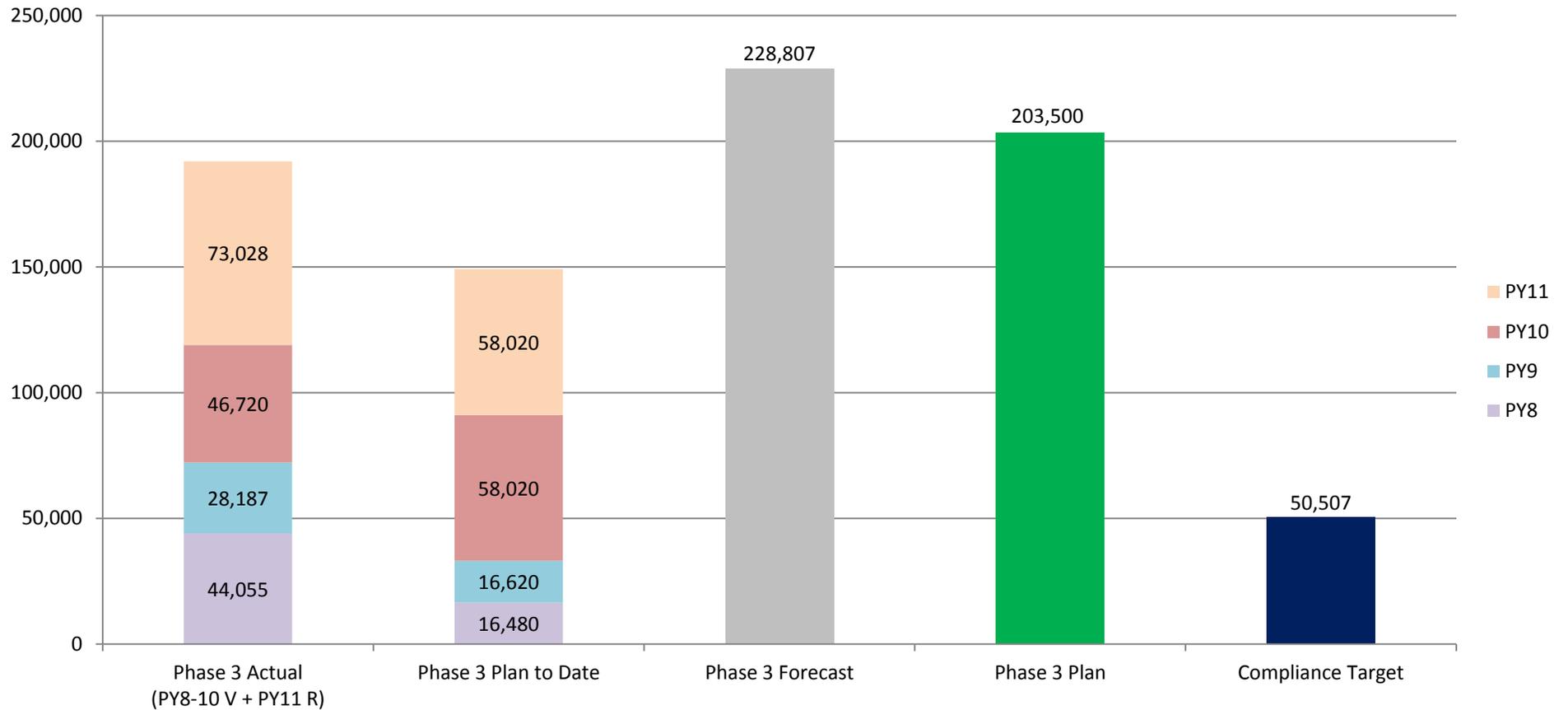
# Overview: Portfolio Savings

Portfolio Savings (MWh/yr)



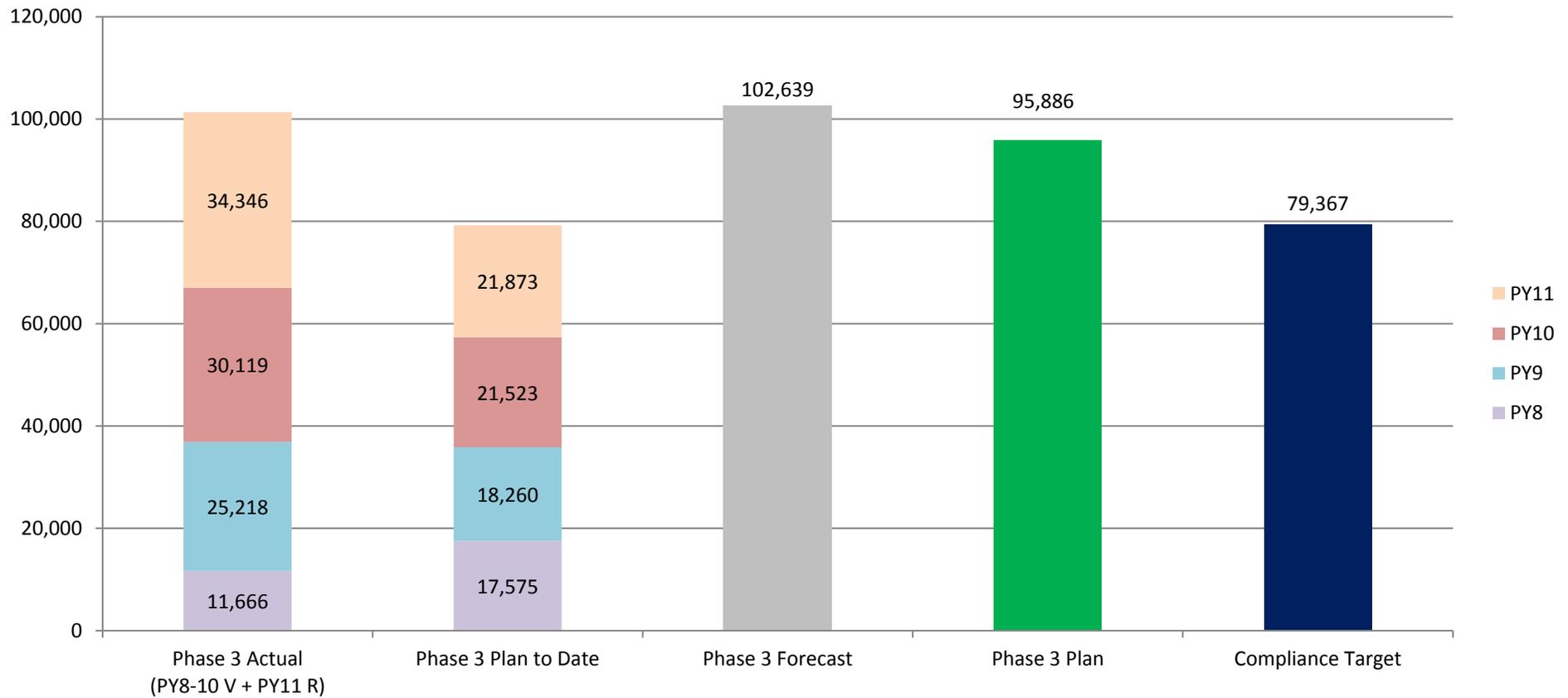
# Overview: GNE Savings

GNE Savings (MWh/yr)



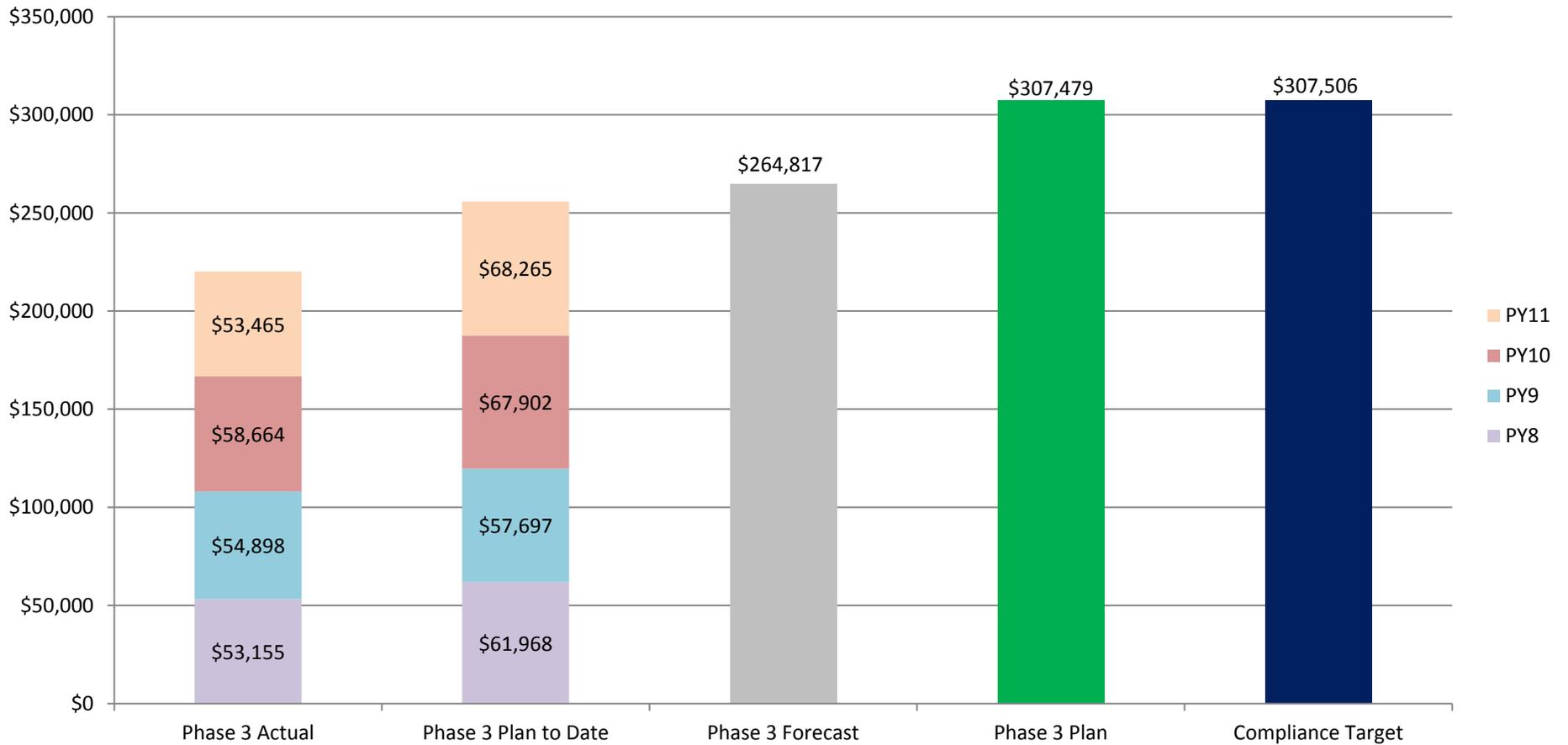
# Overview: Low Income Savings

Low Income Savings (MWh/yr)



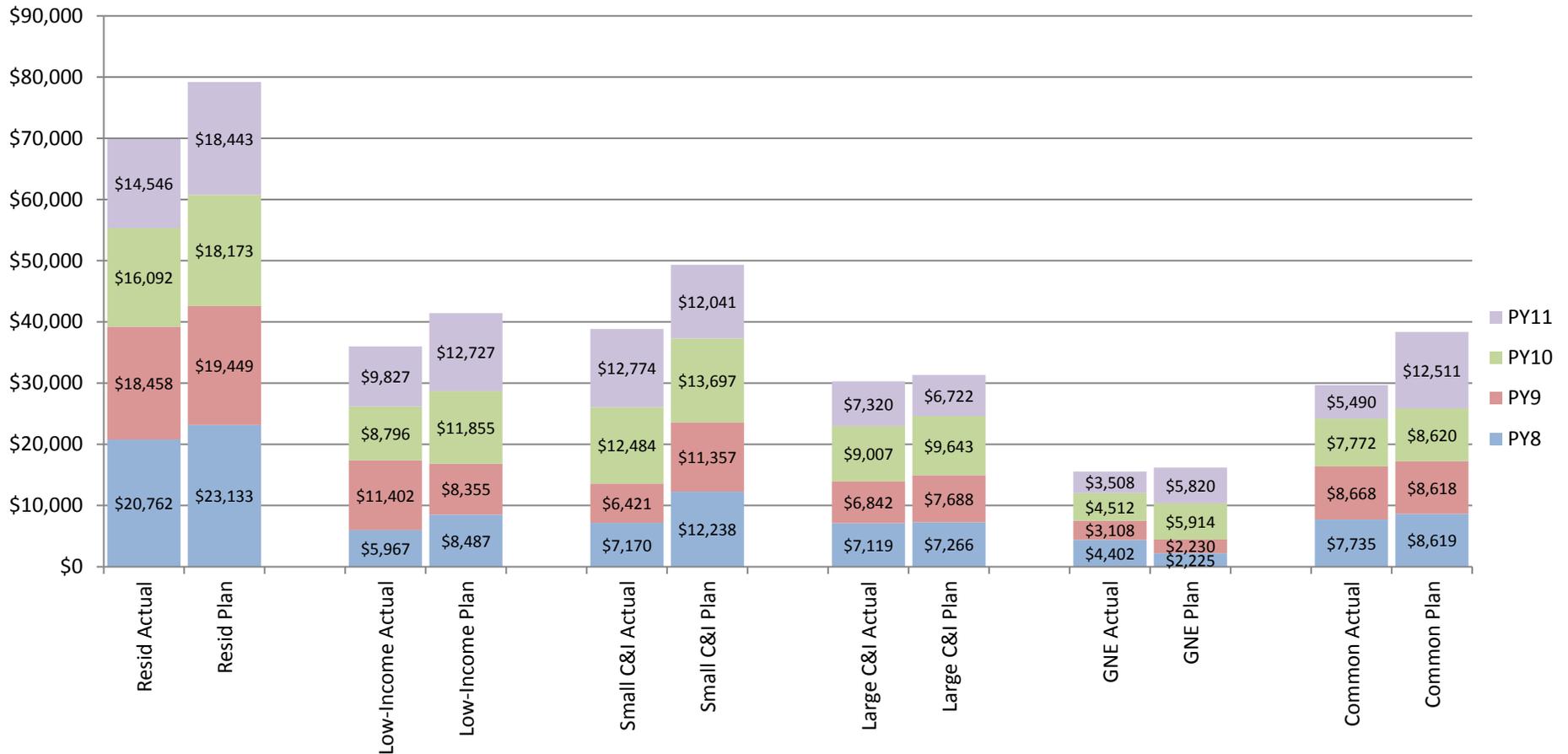
# Overview: Portfolio Costs

Portfolio Costs (\$1,000)



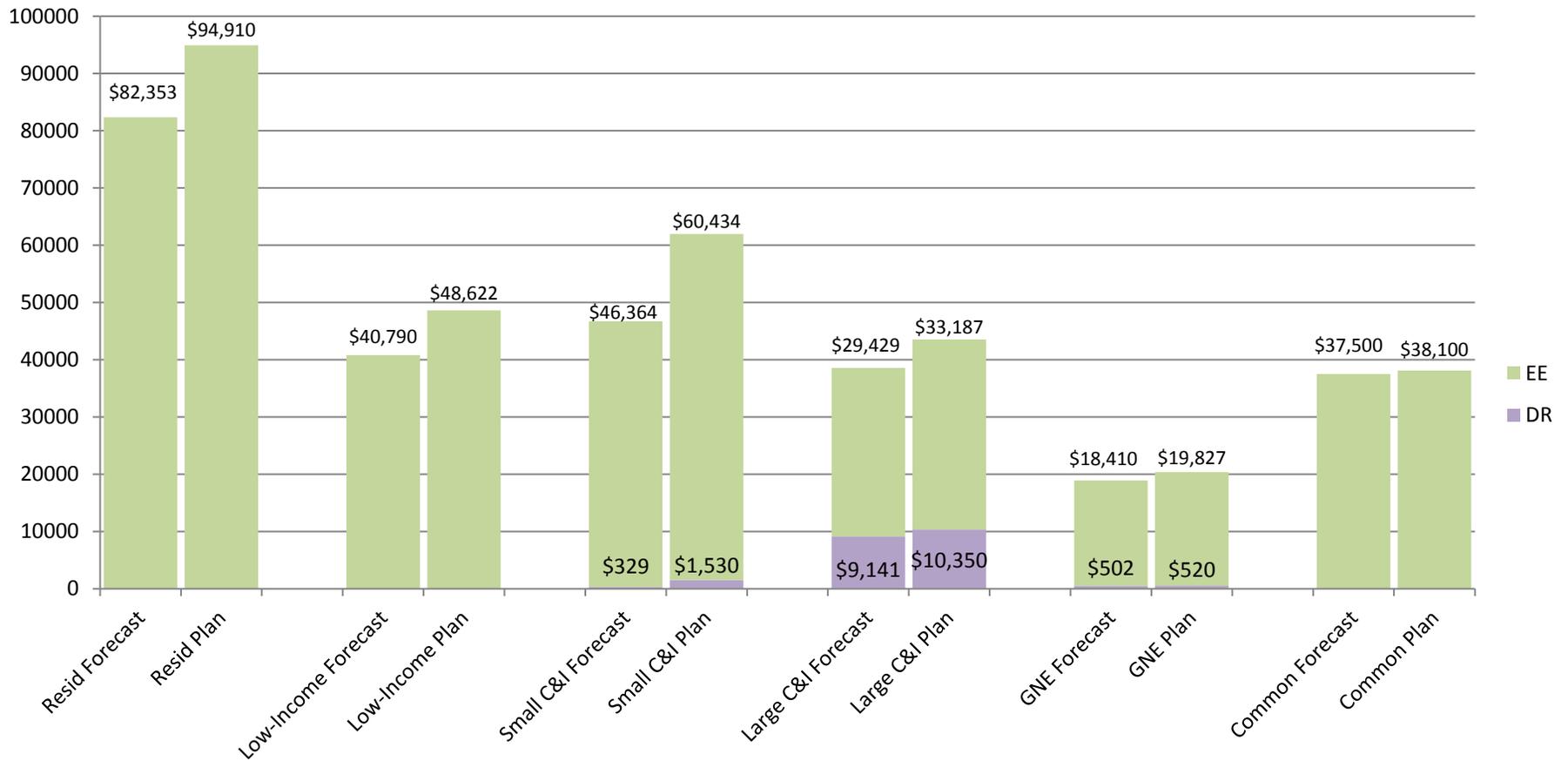
# Overview: Phase To Date Costs

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



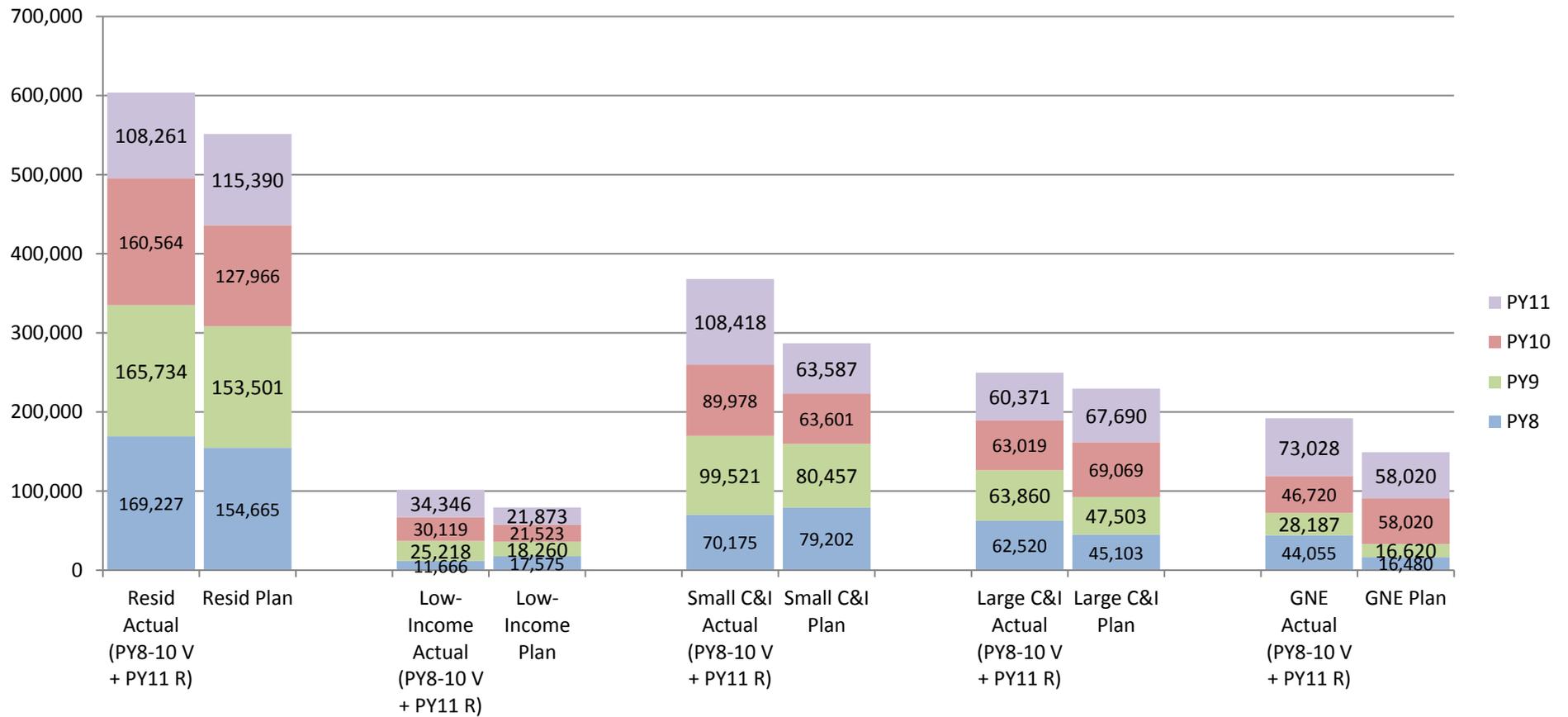
# Overview: Phase 3 Sector Costs

Phase 3 Customer Sector Costs (\$1,000)



# Overview: Phase to Date Sector Savings

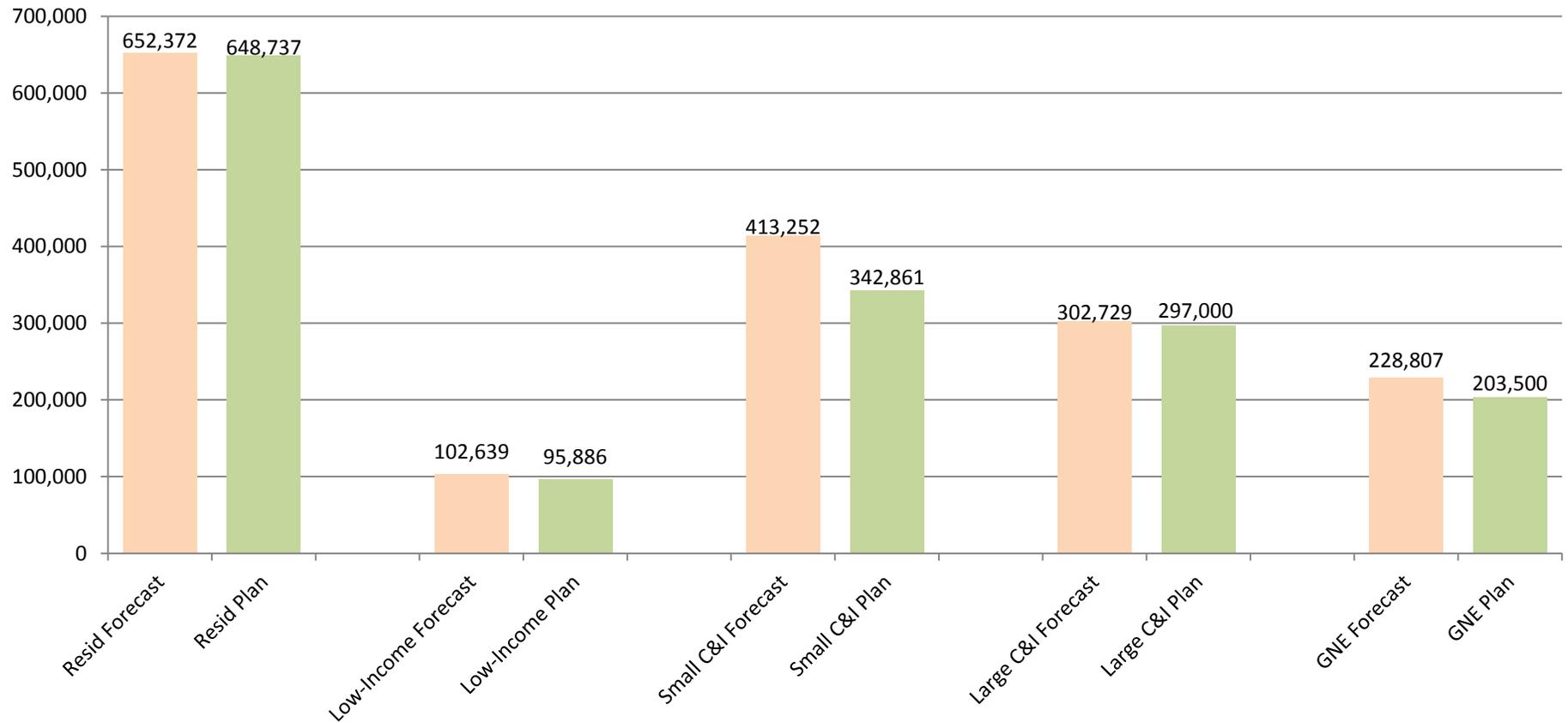
Phase-to-Date Customer Sector Savings (MWh/yr)



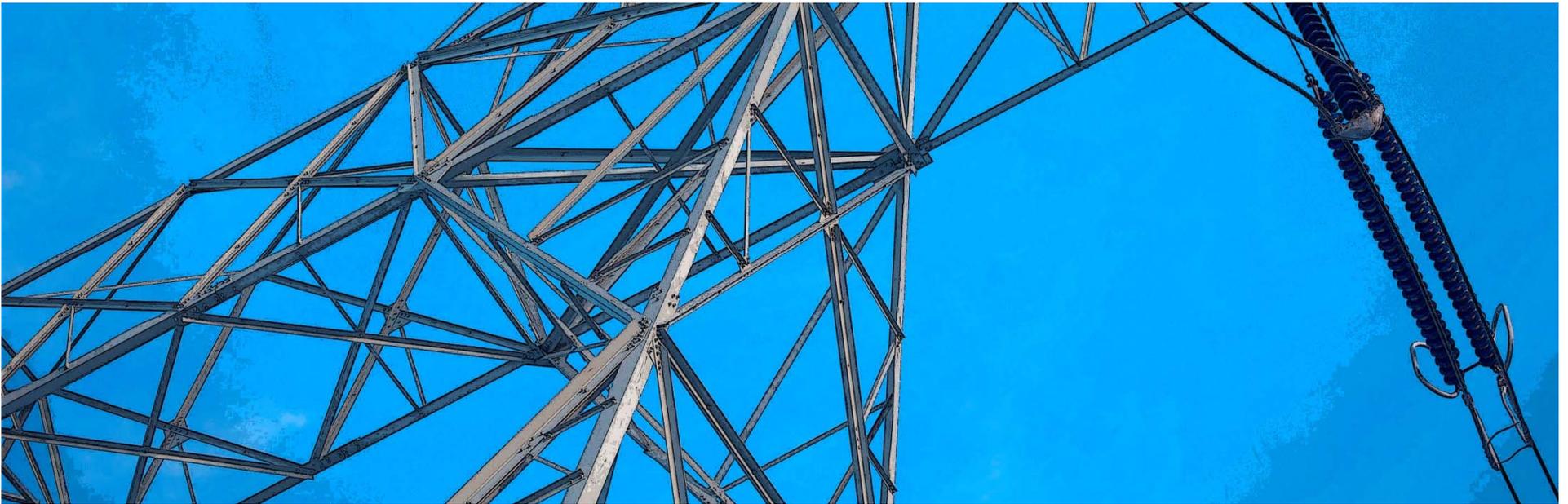
# Overview: Phase 3 Sector Savings



Phase 3 Customer Sector Savings (MWh/yr)



# Residential Programs



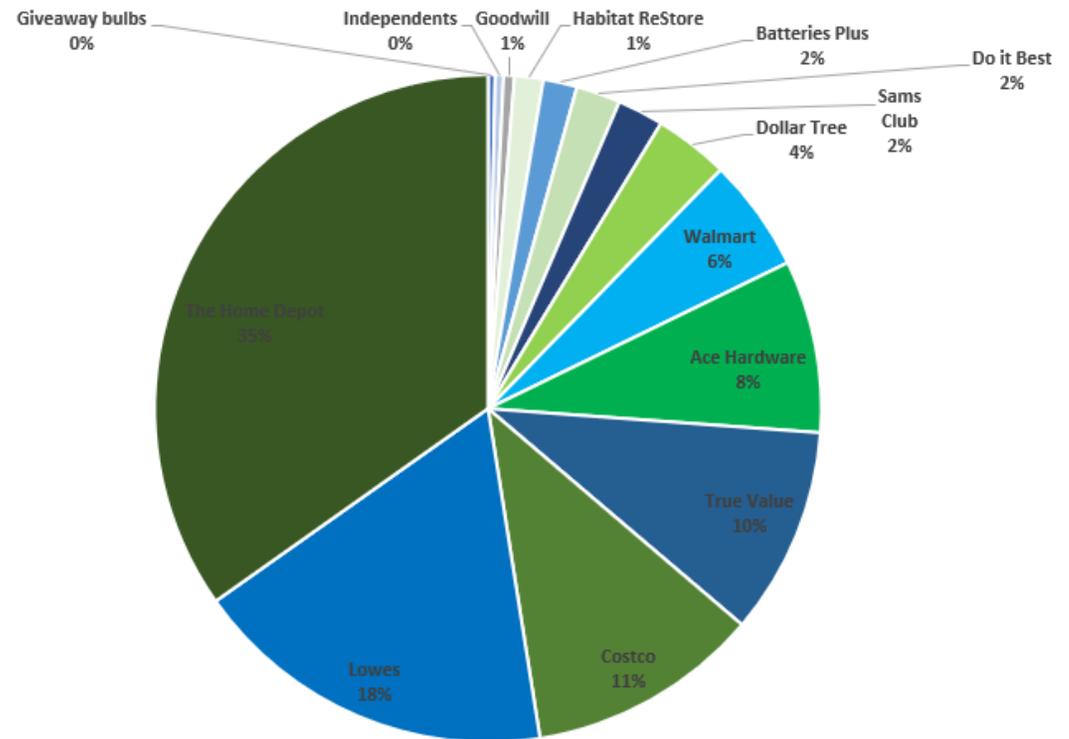
# Residential Program: EE Lighting

- Nearly 1.2 Million LEDs in PY11
- Over 10.3 Million Phase-to-Date
- PY 11 Reported Savings 49,834 MWh/yr.
- Reported plus verified Savings Phase-to-Date 429,163 MWh/yr.
- Very little change in the Diverse Mix of Bulbs

# Residential Program: EE Lighting

## PY11 LEDs by Retailer

Retailer	Label	Units
The Home Depot	Big Box	415,631
Lowes	Big Box	211,694
Costco	Big Box	134,960
Walmart	Big Box	65,596
Sams Club	Big Box	26,724
True Value	Independent	120,170
Ace Hardware	Independent	99,821
Dollar Tree	Independent	43,242
Do it Best	Independent	25,669
Batteries Plus	Independent	19,653
Habitat ReStore	Independent	16,608
Goodwill	Independent	6,268
Independents	Independent	4,752
Giveaway bulbs	Independent	4,176
<b>Total</b>		<b>1,194,964</b>



## Residential Program: EE Lighting

- Given the uncertainty of the current lighting legislation, the Efficient Lighting Program was designed to emphasize the lighting incentives in the early part of Phase III, with a phase out target toward the end of 2019.
- Beginning December 2019, the lighting incentives were discontinued in the major retailers such as Costco, Home Depot and Lowes.
- Limited quantities of incentivized products remained available through the end of 2019 in smaller retailers such as Ace and True Value, as they sold through special orders made for the program.
- We will still maintain the lighting on our website to encourage people to purchase LED light bulbs. Customers will be able to find information about the different types of light bulbs and how to select them.

# Residential Program: New Homes

- **Significant Interest by New Home Builders**
  - 1,381 Homes in PY11
  - Over 4,000 MWh in savings
  - Over \$1.2 million in incentives
- **Efficient New Home Construction**
  - Strong Relationships with Builders and Raters
  - Achieved the Following Key Successes:
    - Providing incentives for more than 3,500 homes verified as 15% more Efficient than IECC or ENERGY STAR® Certified in Phase III to date
    - Driving Incentives Up To \$2,500 Per Home For Participating Builders
    - Achieving An Average Savings of More Than 3,000 kWh/yr. per Home Annually

# Residential Program: New Homes

2020 ENERGY STAR® CERTIFIED HOMES  
MARKET LEADER AWARD

The simple  
choice for  
energy  
efficiency.



The U.S. Environmental Protection Agency recognizes

**PPL Electric Utilities**

for its outstanding commitment to energy-efficient new homes  
and for contributing

**175**

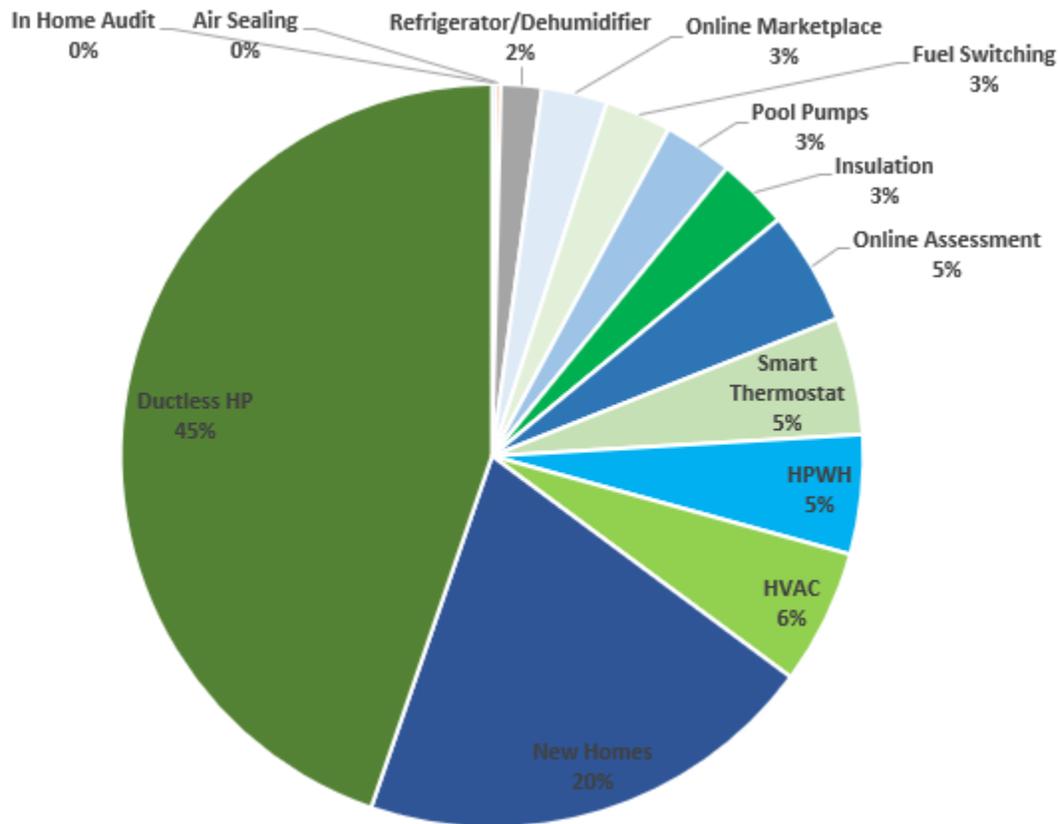
ENERGY STAR certified homes in 2019

Which is equivalent to reducing CO<sub>2</sub> emissions by 256 metric tons, or:

-  Growing 4,235 tree seedlings for 10 years
-  Avoiding the consumption of 595 barrels of oil
-  Removing 55 passenger vehicles from the road

# Residential Program: Energy Efficiency Homes

PY11



- Reported Savings in PY11: 20,261 MWh
- Achieved Savings Phase-to-Date: 66,667 MWh

# Residential Program: Energy Efficient Homes

## PY11

- Ductless HP and HVAC most popular measures rebated
- Ductless HP: 5,422 units or approximately 2,000 projects
- Over 6,000 customers completed an Online Assessment
- Online Assessment/In Home Audit: 3,700 kits
- ASHP/CAC: over 2,400 units

Measure Category	Total kWh/Year
Efficient Equipment	13,883,448
New Homes	4,083,690
Online Assessment	1,003,710
Weatherization	672,955
Online Marketplace	579,656
In Home Audit	37,135
<b>TOTAL</b>	<b>20,260,595</b>

# Residential Program: Energy Efficient Homes



ENERGY STAR® recently presented PPL with its prestigious Excellence Award for energy efficiency leadership and promotion.

PPL has demonstrated "exemplary commitment and dedication to leadership in energy efficiency and the ENERGY STAR program." The federal government also praised us for our "extensive promotion of ENERGY STAR-certified products with effective branding and messaging."

# Residential Program: Energy Efficient Homes

The screenshot displays the PPL Electric Utilities website during an Independence Day Sale. The top navigation bar includes the PPL logo, 'HOME', 'PRODUCTS', 'MY ACCOUNT', 'CART 0', and a search icon. The main banner features the text 'INDEPENDENCE DAY SALE' flanked by American flags. Below the banner, there are two promotional offers: 'Additional \$60 Off the Nest Learning + FREE Google Home Mini' and 'Additional \$15 Off the Nest E + FREE Google Home Mini', each with a 'SHOP NOW' button. A 'FREE SHIPPING ON ORDERS OVER \$35' badge is also present. The 'Weatherization Products' and 'LED Lighting' sections each have a 'SHOP NOW' button. The 'FEATURED PRODUCTS' section lists three items: a Honeywell Lyric T5 Thermostat (rebate price \$99.00), a Nest Thermostat + Google Home Mini (rebate price \$139.00), and a Philips Hue 9W White A19 Starter Kit (rebate price \$61.99). Each product has an 'ADD TO CART' button. A disclaimer at the bottom states: 'By registering for the PPL Marketplace you certify that you are a PPL residential customer, you intend to install purchased products in your own residence, and products are not for resale. Eligible customers may order up to 10 LED lamps per category (General, Reflector Specialty), 10 LED fixtures, 5 LED light strings, 10 LED night lights, 2 2x4's Thermostats, 5 weatherization products, 10 occupancy sensors, 4 dehumidifiers, and 5 advanced power strips per calendar year. Purchases \$35.00 and above receive free shipping. Thank you for using the PPL Marketplace. There are plenty more energy-saving incentives, tips, and tools where that came from. Visit pplelectricsavings.com to see all the ways we can help you save.'

# Energy Efficient Home: Online Marketplace

- An **Online Marketplace** Pilot was launched on December 4, 2018
  - Web browser-based storefront that allows customers to order energy efficient products online
  - Incentives are applied directly to the energy efficiency products, and customers can see the pre-incentive price as well as the net customer price
  - Provides Customers
    - Instant Discounts at checkout
    - Free Shipping on orders over \$35
    - Ease of access – laptop, tablet, phone
    - 24 x 7 access
    - Leverage manufacturer discounts that contributed toward special promotions for additional dollars off specific products

# Energy Efficient Home: Online Marketplace

## Top 5 Products

- Nest Learning Thermostat - 35% of sales
- Nest Thermostat E - 12%
- Ecobee Smart Thermostat w/voice control - 8%
- Nest E with Google Home Mini - 7%
- Nest with Google Home Mini - 5%

## Marketing Channels

- During a campaign - 78-80% from Email
- Ways to Save
- PPL Website

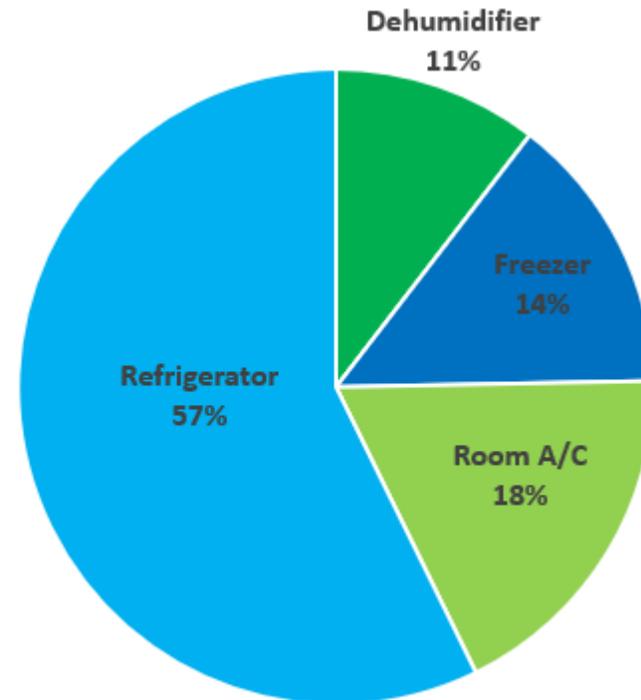
# Residential Program: Appliance Recycling

## Units Collected in PY11

- 7,510 Refrigerators
- 1,869 Freezers
- 2,368 Room Air Conditioners
- 1,370 Dehumidifiers

## Units Collected Phase-to-date

- 33,318 Refrigerators
- 8,306 Freezers
- 6,871 Room Air Conditioners
- 3,052 Dehumidifiers



*\*Units collected in PY11*

# Residential Event: Recycling Roundup

- **Held One Small Appliance Community Recycling Event**
  - Harrisburg Area Community College
  
- **Collected used Room Air Conditioners and Dehumidifiers**
  - 235 participants
  - 249 Room ACs
  - 191 Dehumidifiers
  - Over 200,000 kWh/yr.

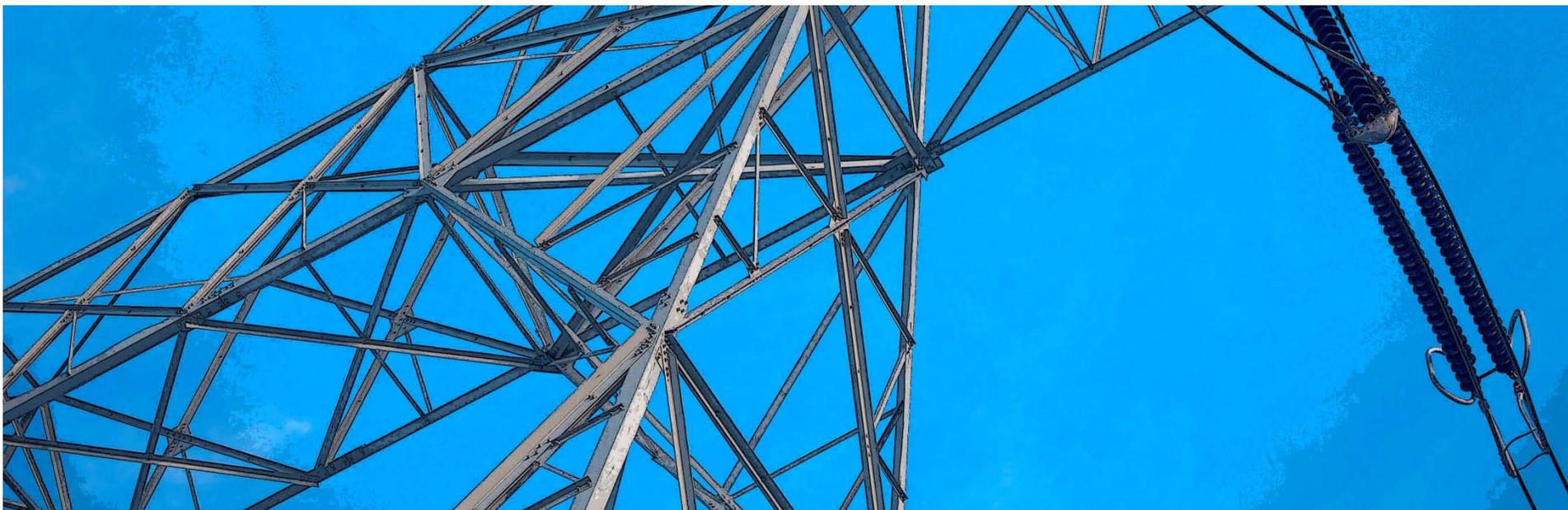
# Residential Program: Student Energy Education

- Fully Subscribed in PY11
- 24,000 Students
  - Bright Kids (2nd – 3rd Grade)
  - Take Action (5<sup>th</sup> – 7<sup>th</sup> Grade)
  - Innovation (9<sup>th</sup> – 12<sup>th</sup> Grade)
- Over 24,000 kits distributed
- Focused on Low Income Schools
- Student Poster Contest – Grade K-8

# Residential Program: Home Energy Education

- Over 143,000 customers received Home Energy Reports
- Savings Were on Target for PY11
  - over 36,000 MWh/yr.
- PPL has offered this program since the beginning of Phase 1. The evaluation of the Home Energy Education Program revealed customer fatigue and yielded lower than expected customer satisfaction results.
- The program was phased out beginning January 1 in preparation for Phase 4. Treatment to low income customers will continue through the end of the phase.

# Low Income Programs



# Low Income Program: Low Income WRAP

- **Goal:** 7,000 WRAP jobs per year
- **Achieved:** Almost 10,000 jobs completed in PY 11
  - Work slowed down before COVID-19
- **Creating more leads, increased marketing, and education**
  - Quick-Track program (11% take rate)
  - On-Track auto-enroll
  - Ran direct mail, email and SM campaigns
  - Tie in other income eligible programs
  - Running customer segmentation outreach
  - High CSAT (96%)
  - Budget is on track

# Low Income Program: Multifamily Status

- Significant increase in MF penetration compared to Phase II
- Increased participation:
  - Approximately 15,000\* units completed phase-to-date
  - Pending: TBD
    - Phase II: 1,400 completed in 3 years
- Single point of contact for multi-family customers
- Master Meter Multi-Family program
  - Jobs – 4,800 units completed phase-to-date
    - Total buildings – more than 500 at 90 complexes
    - Most have been in GNE, but not all (approx. 75/25 split of GNE vs. CI)

\*(IMMF and Apts)

# Low Income Program: Multifamily Update

- **The Good**
  - Collaboration and leads generated from multi-family meetings, presentations and webinars
  - Multiple outreach points
  - Educating landlords has increased consent and participation
  - Reduced customer “no-shows”
- **The Challenges**
  - Multi-family is slowing
  - Struggles with finding MMMF-SCI customers

# Multi-Family Project

- **About Riverview Apartments (Sunbury, PA)**

- **46 units built in 1950**

- **Measures/equipment installed**

- 41 units treated (24 dual)
      - 457 bulbs
      - 151 water measures
      - 384 linear feet of pipe wrap
      - 11 water heaters
      - 19 refrigerators/freezers
      - 15 room air conditioners
      - All units treated with weather stripping and door sweeps



# Multi-Family Coordination Challenges

- **Coordination Challenges**
  - Took 6 months to coordinate the job
  - Took 6 weeks for tenant approvals
  - Took 2 months to complete the job
  - Change of ownership

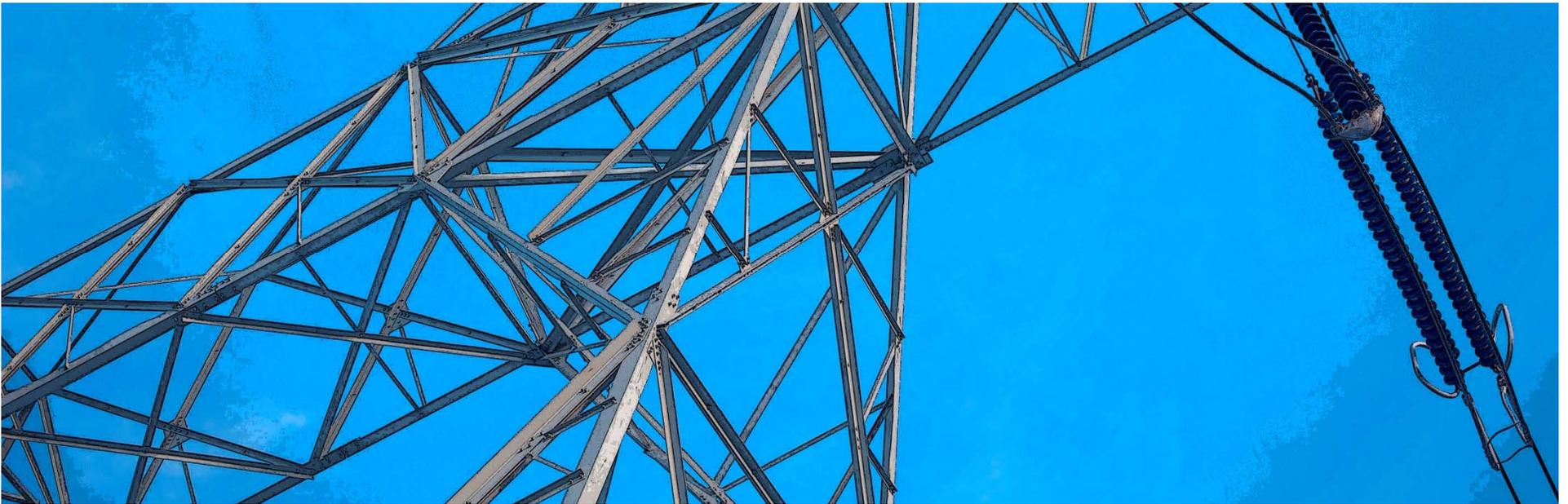
# Low Income Program: Low Income Kits & Education

- **Goal:** 8,000 Kits
- **Achieved:** More than 15,000 kits in PY11
  - Program ended in December 2019 with almost 55,000 kits distributed phase to date
- **Very high CSAT (97%)**
- **Budget is on track**

# COVID19 – Challenges and Solutions

- **Challenge**
  - WRAP suspended in-person customer contact on March 16<sup>th</sup>, 2020
  - Customers in queue notified immediately
- **Solutions**
  - Developed a Virtual Audit Program – Approved on June 15, 2020
  - CSP resumes customer outreach to customers and conducts an audit via phone and facetime. CSP fulfills the EE measure needs of the customer.
  - CSP sends kit with EE measures to customer via USPS or CSP drop-off

# Non-Residential Programs

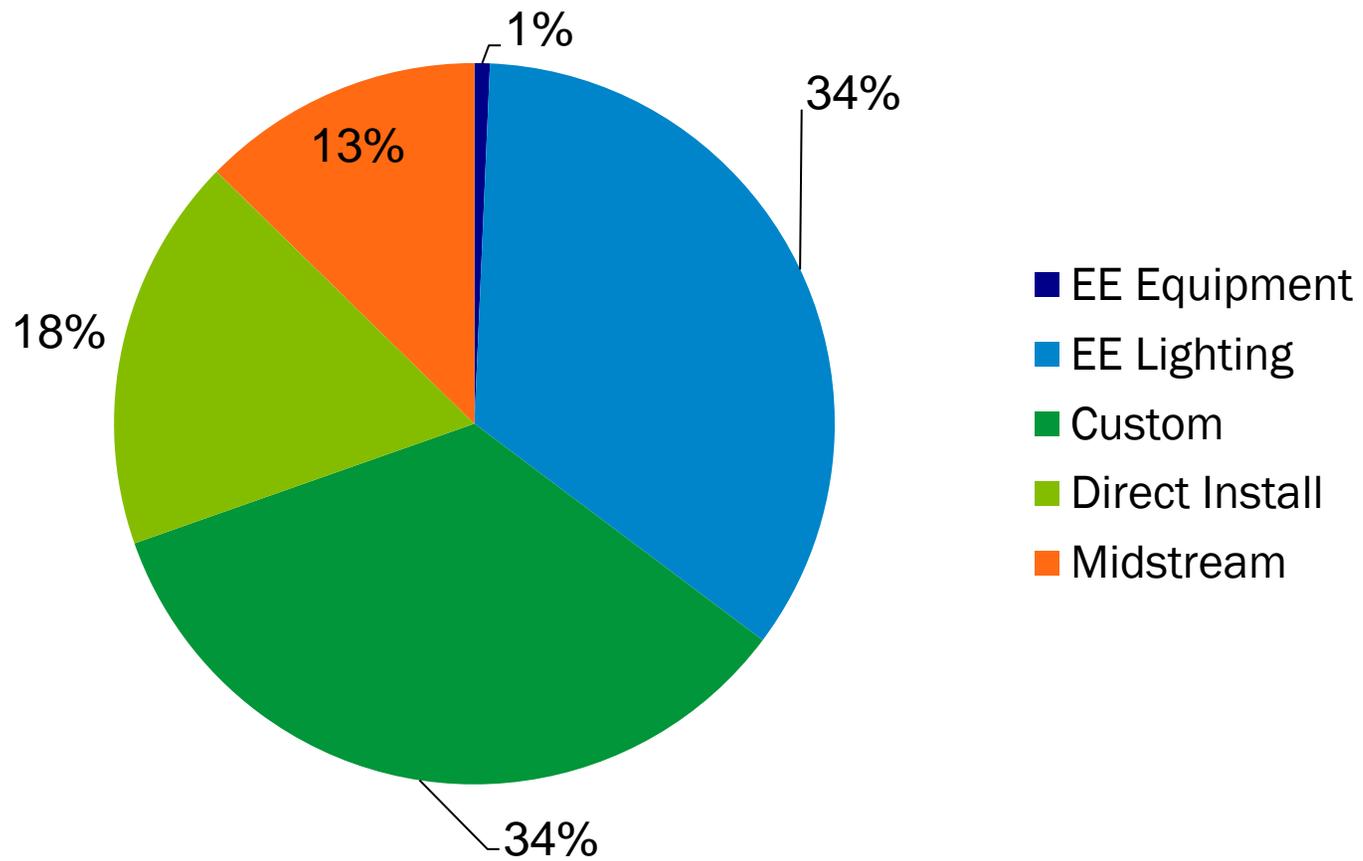


# Non-Residential Program: Overview

- Program Achievements:
  - 232,731 MWh/yr. reported energy savings PY11
  - GNE sector 72,712 MWh/yr. reported energy savings PY11
  - \$13,988,551 incentives paid
  - 9,031 PY11 Projects
  - 7,926 Midstream Projects

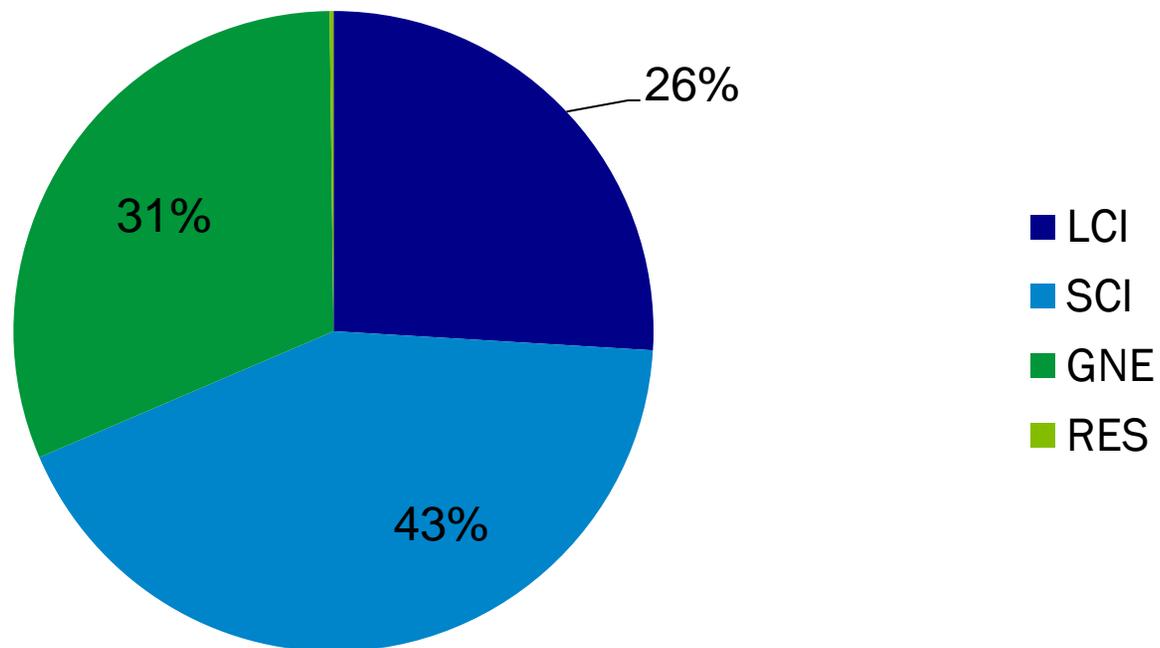
# Non-Residential Programs: Overview

## Energy Savings by Application for PY11



# Non-Residential Programs: Overview

## Energy Savings by Sector for PY11



# Non-Residential: Efficient Equipment

## Program Year 11 Reported Savings for Efficient Equipment:

- Lighting (includes both prescriptive and direct install)
  - 992 Projects
  - 118,952 MWh/yr.
- Equipment (includes both prescriptive and direct install)
  - 45 Projects
  - 4,218 MWh/yr.

Program Year 11 Incentives  
\$9,799,748

## Verified Savings (PY8-PY10):

- 283,108 MWh/yr.

# Non-Residential: Direct Install

## Program Year 11 Reported Savings for Direct Install:

- 41,216 MWh/yr. reported savings
- Roughly 33% of efficient equipment savings
  - Lighting reported savings 38,498 MWh/yr.
  - Equipment reported savings 2,611 MWh/yr.
  - Custom reported savings 107 MWh/yr.

Program Year 11 Incentives  
\$5,679,261

# Non-Residential: Midstream

## Program Year 11 Reported Savings for Midstream:

- 7,926 Projects
- 29,537 MWh/yr.
- 28 Distributors, 94 locations

Program Year 11 Incentives  
\$2,077,807

## Verified Savings (PY8-PY10)

- 42,137 MWh/yr.

# Non-Residential: Custom

## Program Year 11 Reported Savings for Custom:

- 69 Projects
- 80,024 MWh/yr. reported savings
  - 1 Solar projects = 469 MWh/yr.
  - 3 CHP = 45,810 MWh/yr.

Program Year 11 Incentives  
\$2,056,943

## Verified Savings (PY8-PY10)

- 164,504 MWh/yr.

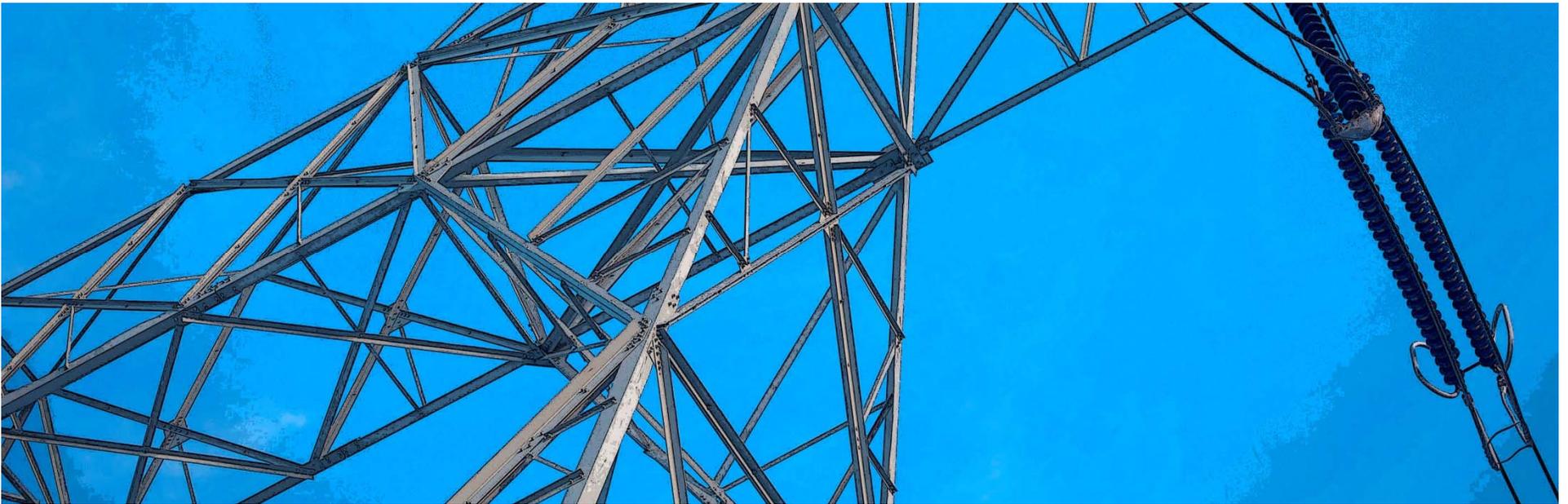
# Non-Residential: Update

## MWh Savings To Date

Sector	Verified * MWh/yr	Reported PY11	Total MWh/yr	Phase 3 MWh Goals	% of Goal
LCI	189,379	60,395	249,774	297,000	84%
SCI	183,616	99,163	282,779	312,810	90%
GNE	116,268	72,712	188,980	201,000	94%
RES	1,676	462	2138		
<b>Total</b>	<b>490,940</b>	<b>232,732</b>	<b>723,672</b>	<b>810,810</b>	<b>89%</b>

\* Verified savings thru PY10 by sector

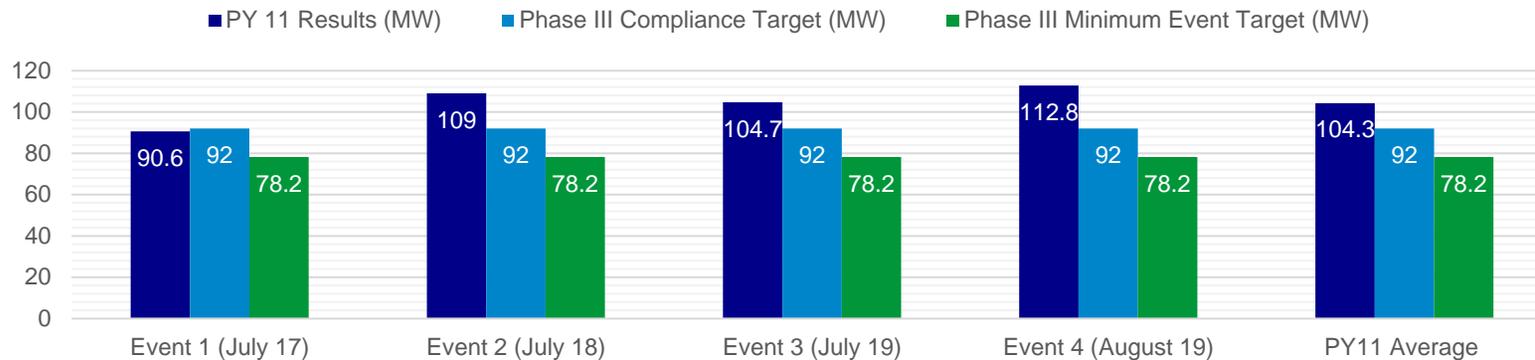
# Demand Response Program



# Demand Response Program: Status

- Demand Response PY11 Season
  - We Met All PY11 Targets
  - Results - 104.3 MW Avg.
  - 4 Events Called in PY11 (including a 3-day event)
    - Event 1 – 90.6 MW Avg.      Event 3 – 104.7 MW Avg.
    - Event 2 – 109 MW Avg.      Event 4 – 112.8 MW Avg.
  - New Cumulative Average - 112.8 MW Avg.

## PY11 DR Season Performance



# Demand Response Program: Update

- **Demand Response PY12 Season – COVID-19**
  - Unclear of Customer's Ability to Perform
    - Retail customers were the only customers consistently increasing usage in March – April timeframe
  - EAP Petition
  - PUC Approval of EAPA Petition
    - Compliance targets for PY12 have been suspended, but the program will be run on a voluntary basis
- **PPL Electric moving forward with PY12 program**
  - Approximately 137.8 MWs Enrolled
    - Currently studying customer's ability to perform and how COVID-19 and economic considerations play an outsized role in customer's desire and ability to perform.

# Contacts

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Closing

Questions, comments?