

Semi-Annual Report to the Pennsylvania Public Utility Commission

Phase III of Act 129

Program Year 8

(June 1, 2016 – May 31, 2017)

For Pennsylvania Act 129 of 2008

Energy Efficiency and Conservation Plan

Prepared by Navigant

For

Duquesne Light Company

January 17, 2017

Table of Contents

ACRONYMS	III
TYPES OF SAVINGS	IV
SECTION 1 INTRODUCTION	1
SECTION 2 SUMMARY OF ACHIEVEMENTS	2
2.1 CARRYOVER SAVINGS FROM PHASE II OF ACT 129	2
2.2 PHASE III ENERGY EFFICIENCY ACHIEVEMENTS TO DATE	3
2.3 PHASE III DEMAND RESPONSE ACHIEVEMENTS TO DATE.....	6
2.4 PHASE III PERFORMANCE BY SECTOR.....	6
SECTION 3 UPDATES AND FINDINGS	8
3.1 IMPLEMENTATION UPDATES AND FINDINGS.....	8
3.2 EVALUATION UPDATES AND FINDINGS	8
SECTION 4 SUMMARY OF PARTICIPATION BY PROGRAM	9
SECTION 5 SUMMARY OF ENERGY IMPACTS BY PROGRAM	11
SECTION 6 SUMMARY OF DEMAND IMPACTS BY PROGRAM	14
6.1 ENERGY EFFICIENCY	14
6.2 DEMAND RESPONSE	17
SECTION 7 SUMMARY OF FINANCES	19
7.1 PROGRAM FINANCIALS.....	19
7.2 COST RECOVERY	20

Figures

FIGURE 1: CARRYOVER SAVINGS FROM PHASE II OF ACT 129	2
FIGURE 2: CUSTOMER SEGMENT-SPECIFIC CARRYOVER FROM PHASE II	3
FIGURE 3: EE&C PLAN PERFORMANCE TOWARD PHASE III PORTFOLIO COMPLIANCE TARGET	4
FIGURE 4: EE&C PLAN PERFORMANCE TOWARD PHASE III LOW-INCOME COMPLIANCE TARGET	5
FIGURE 5: EE&C PLAN PERFORMANCE TOWARD PHASE III GNI COMPLIANCE TARGET	6
FIGURE 6: PYRTD REPORTED GROSS ENERGY SAVINGS BY PROGRAM	11
FIGURE 7: PSA ENERGY SAVINGS BY PROGRAM FOR PHASE III	12
FIGURE 8: PYRTD GROSS DEMAND SAVINGS BY ENERGY EFFICIENCY PROGRAM	15
FIGURE 9: PSA DEMAND SAVINGS BY ENERGY EFFICIENCY PROGRAM FOR PHASE III	16

Tables

TABLE 1: P3TD SAVINGS CALCULATION EXAMPLE	V
TABLE 2: PY8 SUMMARY STATISTICS BY CUSTOMER SEGMENT	7
TABLE 3: PHASE III SUMMARY STATISTICS BY CUSTOMER SEGMENT	7
TABLE 4: EE&C PLAN PARTICIPATION BY PROGRAM	10
TABLE 5: ENERGY SAVINGS BY PROGRAM (MWH/YEAR)	13
TABLE 6: PEAK DEMAND SAVINGS BY PROGRAM (MW/YEAR)	17
TABLE 7: PROGRAM YEAR TO DATE FINANCIALS (\$1,000)	19
TABLE 8: PHASE III TO DATE FINANCIALS (\$1,000)	20
TABLE 9: EE&C PLAN EXPENDITURES BY COST-RECOVERY CATEGORY	21

Acronyms

BDR	Behavioral Demand Response
C&I	Commercial and Industrial
CFL	Compact Fluorescent Lamp
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
P3TD	Phase III to Date
PA PUC	Pennsylvania Public Utility Commission
PSA	Phase III to Date Preliminary Savings Achieved; equal to VTD + PYRTD
PSA+CO	PSA savings plus Carryover from Phase II
PY	Program Year: e.g. PY8, from June 1, 2016, to May 31, 2017
PYRTD	Program Year Reported to Date
PYVTD	Program Year Verified to Date
RTD	Phase III to Date Reported Gross Savings
SWE	Statewide Evaluator
TRC	Total Resource Cost
TRM	Technical Reference Manual
VTD	Phase III 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 and peak demand savings 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 and peak demand savings 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 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 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 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. PYRTD values for energy efficiency will always be reported gross savings in a semi-annual or preliminary 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 III to Date (P3TD): The energy and peak demand savings achieved by an EE&C program or portfolio within Phase III of Act 129. Reported in several permutations described below.

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

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

Phase III to Date Preliminary Savings Achieved (PSA): The sum of the verified gross savings (VTD) from previous program years in Phase III where the impact evaluation is complete plus the reported gross savings from the current program year (PYRTD). For PY8, the PSA savings will always equal the PYRTD savings because PY8 is the first program year of the phase (no savings will be verified until the PY8 final annual report).

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

Table 1 lists savings values for a hypothetical EDC as of the PY10 semi-annual report, when the first six months of PY10 reported savings are available. The calculations below are then used to illustrate the differences between various savings values.

Table 1: P3TD Savings Calculation Example

Program Period	Reported Gross (MWh/year)	Verified Gross (MWh/year)
Phase II (Carryover)	N/A	400
PY8	800	700
PY9	900	850
PY10 (Q1+Q2)	500	N/A

PYRTD (PY10) = 500 MWh/year

RTD = 800 + 900 + 500 = 2,200 MWh/year

VTD = 700 + 850 = 1,550 MWh / year

PSA = 1,550 + 500 = 2,050 MWh/year

PSA + CO = 2,050 + 400 = 2,450 MWh/year

Section 1 Introduction

Pennsylvania Act 129 of 2008, signed on October 15, 2008, mandated energy savings and demand reduction goals for the largest electric distribution companies (EDCs) in Pennsylvania for Phase I (2008 through 2013). Phase II of Act 129 began in 2013 and concluded in 2016. In late 2015, each EDC filed a new energy efficiency and conservation (EE&C) plan with the Pennsylvania Public Utility Company (PA PUC) detailing the proposed design of its portfolio for Phase III. These plans were updated based on stakeholder input and subsequently approved by the PA PUC in 2016.

Implementation of Phase III of Act 129 programs began on June 1, 2016. This report documents the progress and effectiveness of the Phase III EE&C programs for Duquesne Light Company (Duquesne Light) in Program Year 8 (PY8), as well as the cumulative accomplishments of the Phase III programs since inception. This report additionally documents the energy savings carried over from Phase II. The Phase II carryover savings count towards EDC savings compliance targets for Phase III.

This report details the participation, spending, and reported gross impacts of the energy efficiency programs in PY8. Compliance with Act 129 savings goals are ultimately based on verified gross savings. Duquesne Light has retained Navigant as an independent evaluation contractor for Phase III of Act 129. Navigant is responsible for the measurement and verification of the savings and calculation of verified gross savings. The verified gross savings for PY8 energy efficiency programs will be reported in the final annual report, to be filed on November 15, 2017.

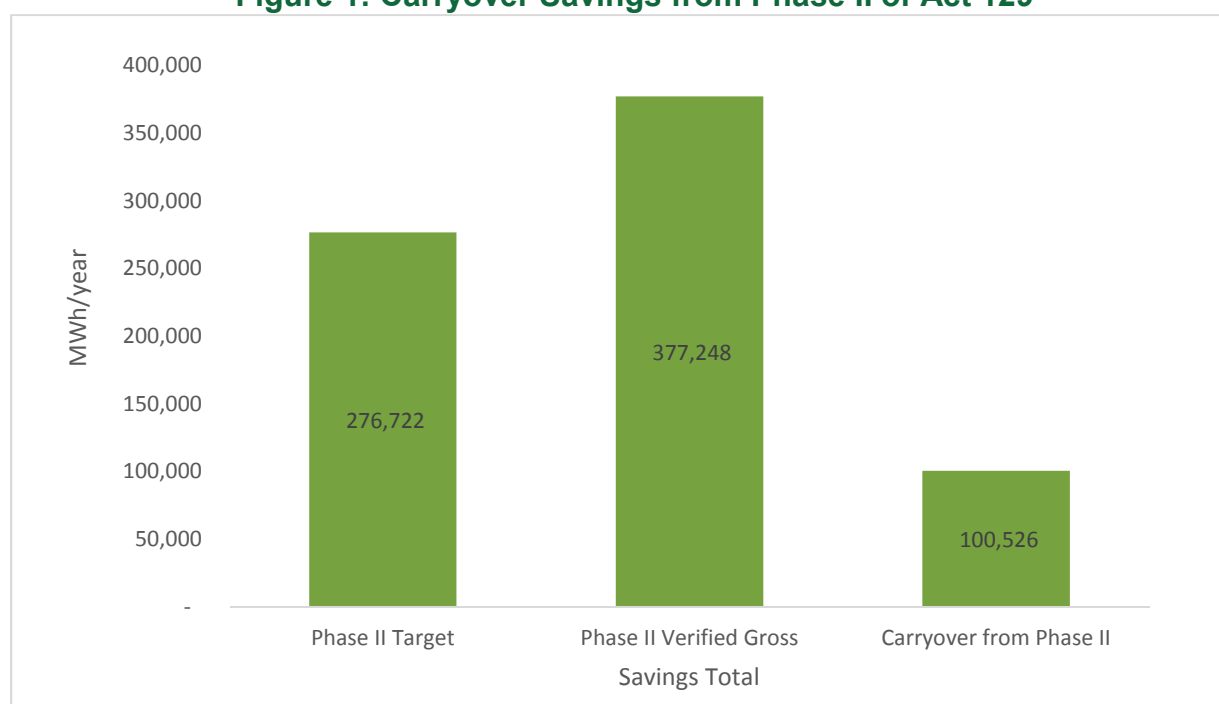
Phase III of Act 129 includes a demand response goal for Duquesne Light. Demand response events are limited to the months of June through September, which are the first four months of the Act 129 program year. Because the demand response season is completed early in the program year, it is possible to complete the independent evaluation of verified gross savings for demand response sooner than is possible for energy efficiency programs. Section 6.2 of this report includes the verified gross demand response impacts for PY8 as well as the cumulative demand response performance of the EE&C program to date for Phase III of Act 129.

Section 2 Summary of Achievements

2.1 CARRYOVER SAVINGS FROM PHASE II OF ACT 129

Duquesne Light has a total of 100,526 MWh/year of carryover savings from Phase II. Figure 1 compares Duquesne Light's Phase II verified gross savings total to the Phase II compliance target to illustrate the carryover calculation.

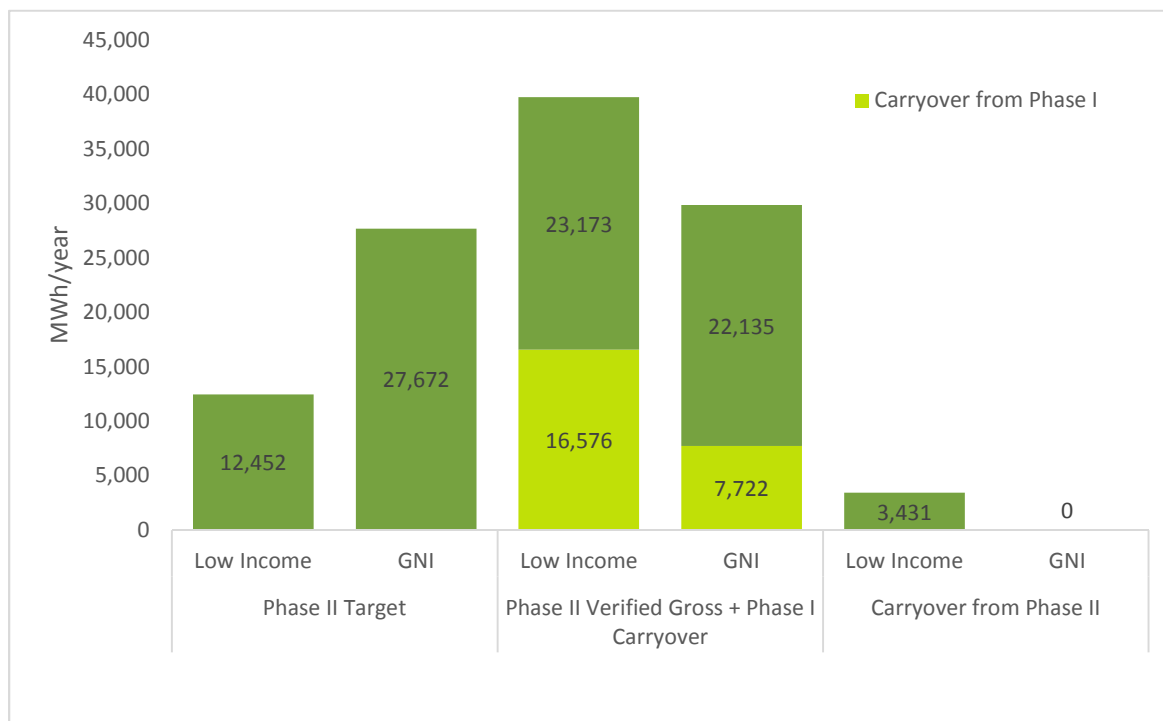
Figure 1: Carryover Savings from Phase II of Act 129



The Commission's Phase III Implementation Order¹ also allowed EDCs to carry over savings in excess of the Phase II low-income and Government, Non-Profit, and Institutional (GNI) customer segment goals. Figure 2 shows the savings goal and the carryover savings for low-income and for GNI.²

¹ Pennsylvania Public Utility Commission, *Energy Efficiency and Conservation Program Implementation Order*, at Docket No. M-2014-2424864, (*Phase III Implementation Order*), entered June 11, 2015.

² Calculation of low-income savings carried over from Phase II to Phase III was documented in Duquesne Light's PY7 Annual Compliance Report, as follows: $([23,173 \text{ (Phase II Cumulative Annual Savings (MWh))}] - [12,452 \text{ (Phase II Target (MWh))}]) * 32\%$. The 23,173 MWh in Phase II cumulative annual energy savings were those savings specifically resulting from Phase II expenditures (not carried over from Phase I). The 32% represented the proportion of these total low income verified Phase II savings associated with program activities that were targeted specifically at low income customers.

Figure 2: Customer Segment-Specific Carryover from Phase II

2.2 PHASE III ENERGY EFFICIENCY ACHIEVEMENTS TO DATE

Since the beginning of Program Year 8 on June 1, 2016, Duquesne Light has claimed:

- 10,825 MWh/yr of reported gross electric energy savings (PYRTD)
- 1.09 MW/yr of reported gross peak demand savings (PYRTD) originating from energy efficiency programs

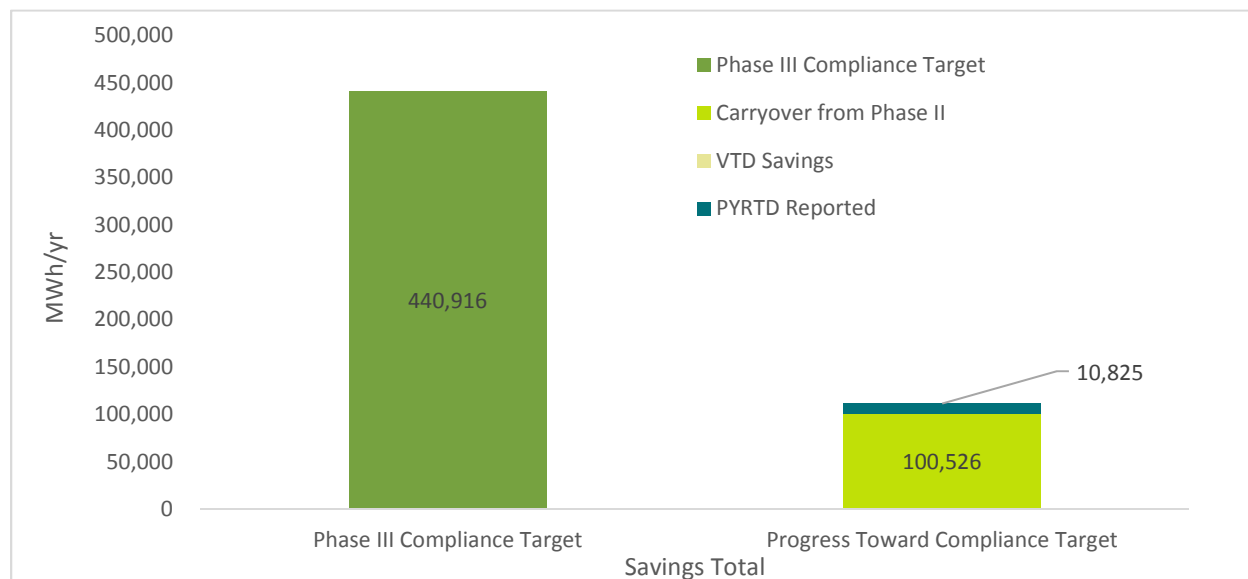
Since the beginning of Phase III of Act 129 on June 1, 2016, Duquesne Light has achieved:

- 10,825 MWh/yr of reported gross electric energy savings (RTD)
- 1.09 MW/yr of reported gross peak demand savings (RTD) from energy efficiency programs
- 10,825 MWh/yr of gross electric energy savings (PSA). This total includes verified gross savings from previous Phase III program years and the PYRTD reported gross savings from PY8.
- 1.09 MW/yr of gross peak demand savings (PSA) from energy efficiency programs

Including carryover savings from Phase II, Duquesne Light has achieved:

- 111,351 MWh/yr of PSA+CO energy savings recorded to date in Phase III
 - This represents 25% percent of the May 31, 2021 energy savings compliance target of 440,916 MWh/yr.

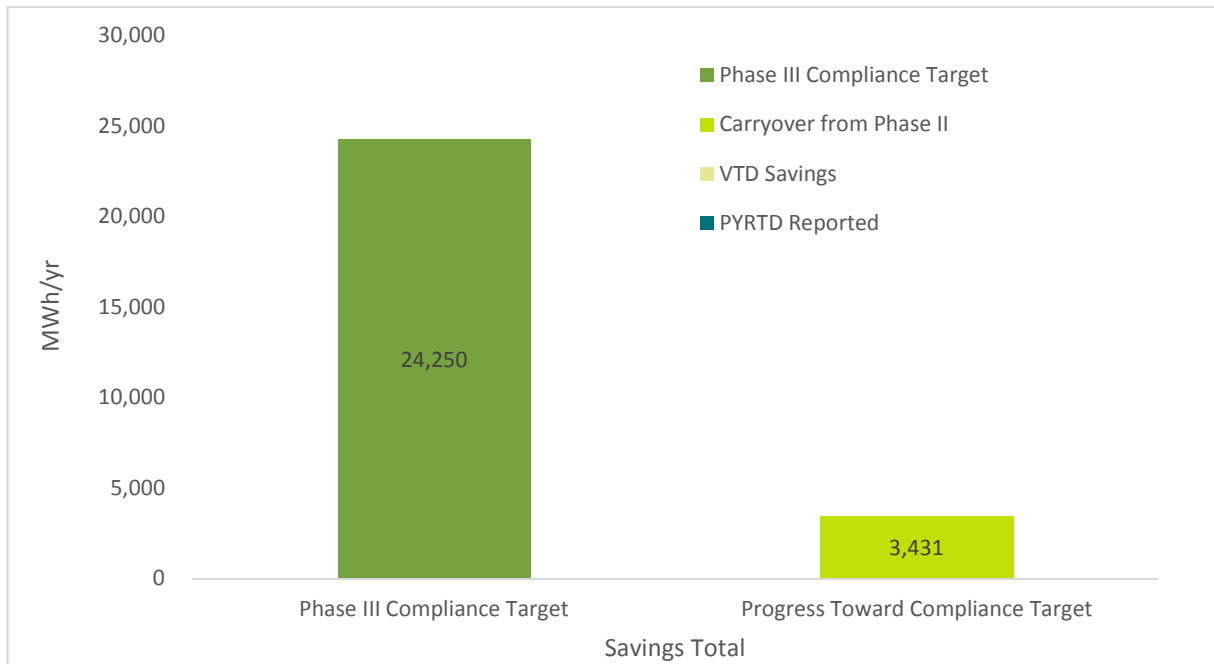
Figure 3: EE&C Plan Performance Toward Phase III Portfolio Compliance Target



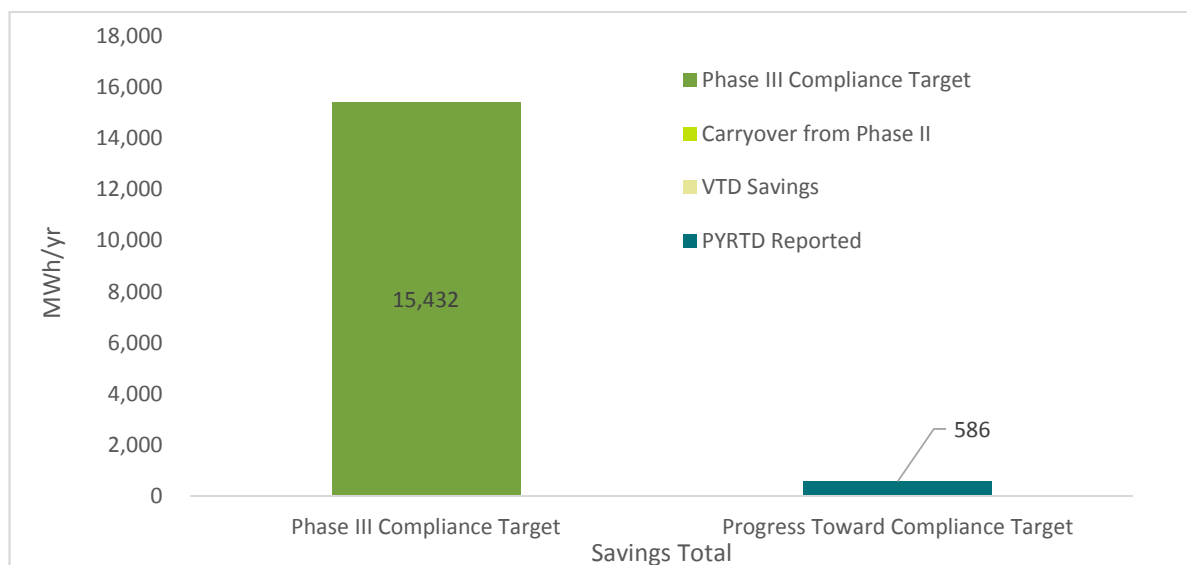
The Phase III Implementation Order directed EDCs to offer conservation measures to the low-income customer segment based on the proportion of electric sales attributable to low-income households. The proportionate number of measures target for Duquesne Light is 8.4%. Duquesne Light is expected to offer a total of 94 EE&C measures to its residential and non-residential customer classes. Based on that measure total, a minimum of 8 measures will be needed to meet the 8.4% minimum. In Q1 and Q2 of PY8, no low-income-specific measures were offered. However, once the Whole House Retrofit program launches (expected in Q3), there will be a minimum of 14 measures available to the low-income customer segment at no cost to the customer. This will represent 14.8% of the total measures to be offered in the EE&C plan and will exceed the proportionate number of measures targeted.

The PA PUC also established a low-income energy savings target of 5.5% of the portfolio savings goal. The low-income savings target for Duquesne Light is 24,250 MWh/yr and is based on verified gross savings. Figure 4 compares the PSA+CO performance to date for the low-income customer segment to the Phase III savings target. Based on the latest available information, Duquesne Light has achieved 14% of the Phase III low-income energy savings target, with all such savings to date coming solely from the Phase II carryover.

Figure 4: EE&C Plan Performance Toward Phase III Low-Income Compliance Target



The Phase III Implementation Order established a Government, Non-Profit, and Institutional (GNI) energy savings target of 3.5% of the portfolio savings goal. The GNI savings target for Duquesne Light is 15,432 MWh/yr and is based on verified gross savings. Figure 5 compares the PSA+CO performance to date for the GNI customer segment to the Phase III savings target. Based on the latest available information, Duquesne Light has achieved 3.8% of the Phase III GNI energy savings target.

Figure 5: EE&C Plan Performance Toward Phase III GNI Compliance Target

2.3 PHASE III DEMAND RESPONSE ACHIEVEMENTS TO DATE

The Phase III demand response performance target for Duquesne Light is 42 MW. The demand response programs will begin delivering demand reductions in PY9. No DR achievements are reported within this PY8 report.

2.4 PHASE III PERFORMANCE BY SECTOR

Table 2 presents the participation, savings, and spending by customer sector for PY8. The residential, small C&I, and large C&I sectors are defined by EDC tariff, and the residential low-income and GNI sectors 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 includes customers who are part of the small C&I or large C&I rate classes. The savings, spending, and participation values for the LI and GNI segments have been removed from the parent sectors in Table 2.

Table 2: PY8 Summary Statistics by Customer Segment

Parameter	Residential (Non-LI)	Residential LI	Small C&I (Non-GNI)	Large C&I (Non-GNI)	GNI
# participants	1,479	0	29	0	10
PYRTD MWh/yr	9,715	0	505	0	605
PYRTD MW (Energy Efficiency)	1.00	0.00	0.04	0.00	0.06
PYRTD MW (Demand Response)	0.00	0.00	0.00	0.00	0.00
Incentives (\$1,000)	\$536	\$0	\$0	\$0	\$0

Table 3 summarizes plan performance by sector since the beginning of Phase III.

Table 3: Phase III Summary Statistics by Customer Segment

Parameter	Residential (Non-LI)	Residential LI	Small C&I (Non-GNI)	Large C&I (Non-GNI)	GNI
# participants	1,479	0	29	0	10
PSA MWh/yr	9,715	0	505	0	605
PSA MW (Energy Efficiency)	1.00	0.00	0.04	0.00	0.06
Phase III MW (Demand Response)	0.00	0.00	0.00	0.00	0.00
Incentives (\$1,000)	\$536	\$0	\$0	\$0	\$0

Section 3 Updates and Findings

3.1 IMPLEMENTATION UPDATES AND FINDINGS

Duquesne Light has made no substantive changes to its Phase III EE&C Plan portfolio during PY8. In the first two quarters of PY8 that are the subject of this report, participation has occurred for the following programs:

- REEP: Residential Energy Efficiency
- REEP: Residential Energy Efficiency (Upstream Lighting)
- Express Efficiency
- Public Agency Partnership
- Community Education

3.2 EVALUATION UPDATES AND FINDINGS

Duquesne Light's progress on the Phase III evaluation effort is summarized below.

- Navigant has written, received statewide evaluator (SWE) comments on, and held discussions with the SWE regarding the Phase III evaluation plan.
- Navigant has reviewed Duquesne Light's new PMRS database and vetted it for accuracy and comprehensiveness. Navigant is working with Duquesne Light to ensure program activities are recorded accurately and consistent with the current Pennsylvania Technical Reference Manual (TRM).
- Navigant, in collaboration with Duquesne Light, the SWE, and PPL Electric Utility, contributed to the development of the Midstream Lighting Interim Measure Protocol (IMP). Specific activities included drafting text, vetting measure specifications and providing comments on IMP drafts.

Section 4 Summary of Participation by Program

Participation is defined differently for different programs depending on the program delivery channel and data tracking practices. The nuances of the participant definition vary by program and are summarized by program in the bullets below, and Table 4 provides the current participation totals for PY8 and Phase III.

- For the following residential programs, a participant is a customer participating in the given program within an individual semi-annual period (e.g., PY8 Q1 and Q2), represented by a unique participant account number within the tracking system. The counts appearing in Table 4, below, represent the summations of the unique customer participant account numbers in the tracking system for the given program in each of the semi-annual periods represented (i.e., PYRTD or P3TD). Customers participating in a program more than once within a semi-annual period are counted once; customers participating more than once but in different semi-annual periods or programs are counted more than once (once in each period and/or program).
 - REEP: Residential Energy Efficiency
- For the following residential program, participation is not defined because reported program data tracks lamp sales activities and not individual participating customer activities.
 - REEP: Residential Energy Efficiency (Upstream Lighting)
- For the following non-residential programs, a participant is a single project in the given program within an individual semi-annual period (e.g., PY8 Q1 and Q2), represented by a unique project number within the tracking system. The counts below represent the summations of the unique project numbers in the tracking system for the given program in each of the semi-annual periods represented (i.e., PYRTD or P3TD). Customers having more than one project within a specific semi-annual period are counted more than once.
 - Express Efficiency
 - Public Agency Partnership
 - Community Education
- Participation for the following programs will be defined in subsequent compliance reports once activities are reported by Duquesne Light for Phase III.
 - Residential Appliance Recycling
 - Residential Behavioral Savings
 - Residential Whole House Retrofit
 - Low Income Energy Efficiency
 - Small/Medium Midstream Lighting
 - Small Commercial Direct Install
 - Multifamily Housing Retrofit
 - Commercial Efficiency
 - Large Midstream Lighting

- Industrial Efficiency
- Large C&I Demand Response Curtailable

Table 4: EE&C Plan Participation by Program

Program	PYRTD Participation	P3TD Participation
REEP: Residential Energy Efficiency	1,479	1,479
REEP: Residential Energy Efficiency (Upstream Lighting)	N/A	N/A
Residential Appliance Recycling	0	0
Residential Behavioral Savings	0	0
Residential Whole House Retrofit	0	0
Low Income Energy Efficiency	0	0
Express Efficiency	29	29
Small/Medium Midstream Lighting	0	0
Small Commercial Direct Install	0	0
Multifamily Housing Retrofit	0	0
Commercial Efficiency	0	0
Large Midstream Lighting	0	0
Industrial Efficiency	0	0
Public Agency Partnership	9	9
Community Education	1	1
Large C&I Demand Response Curtailable	0	0
Portfolio Total	1,518	1,518

Section 5 Summary of Energy Impacts by Program

Figure 6 presents a summary of the PYRTD reported gross energy savings by program for Program Year 8. The energy impacts in this report are presented at the meter level and do not reflect adjustments for transmission and distribution losses.

Figure 6: PYRTD Reported Gross Energy Savings by Program

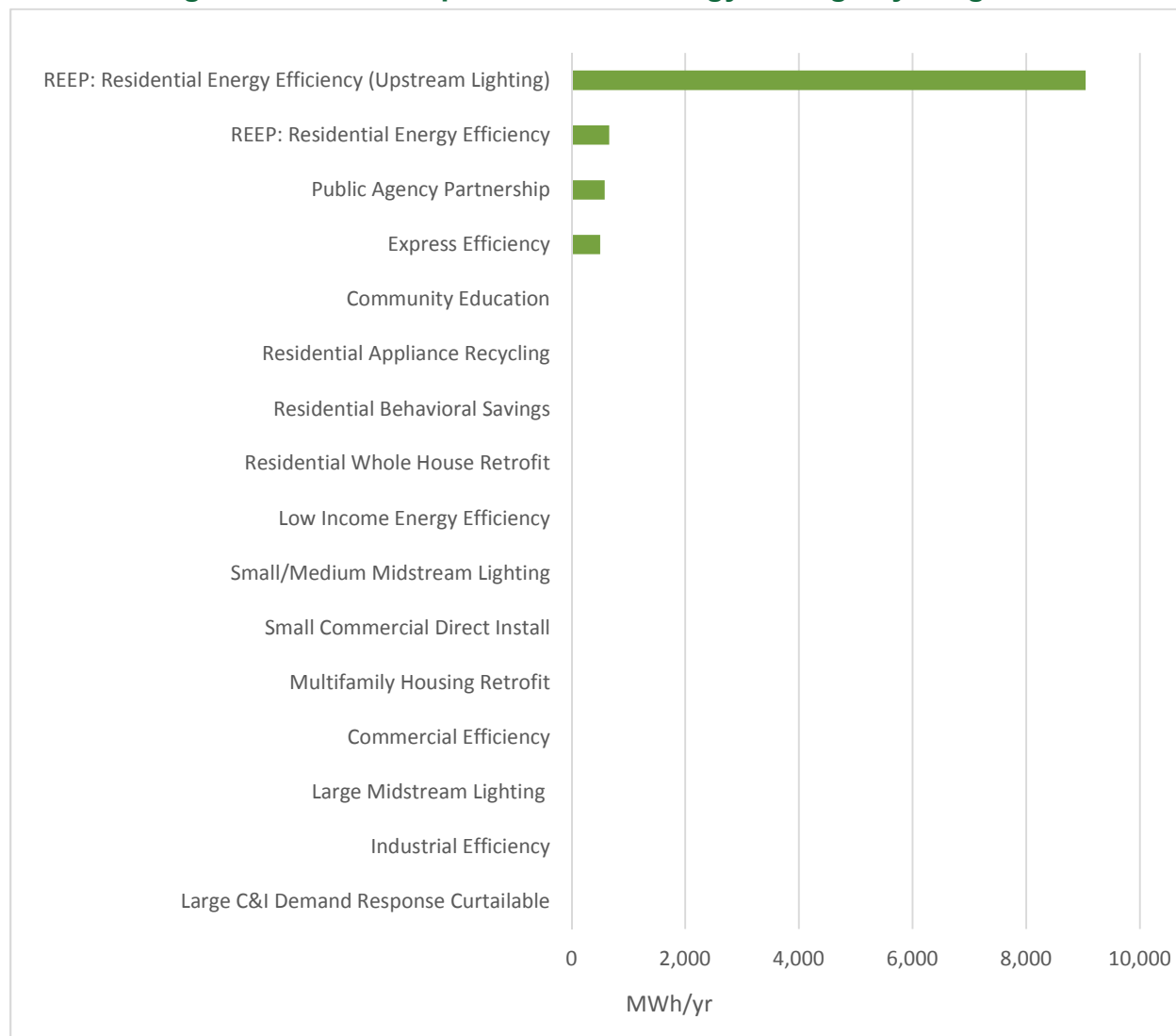
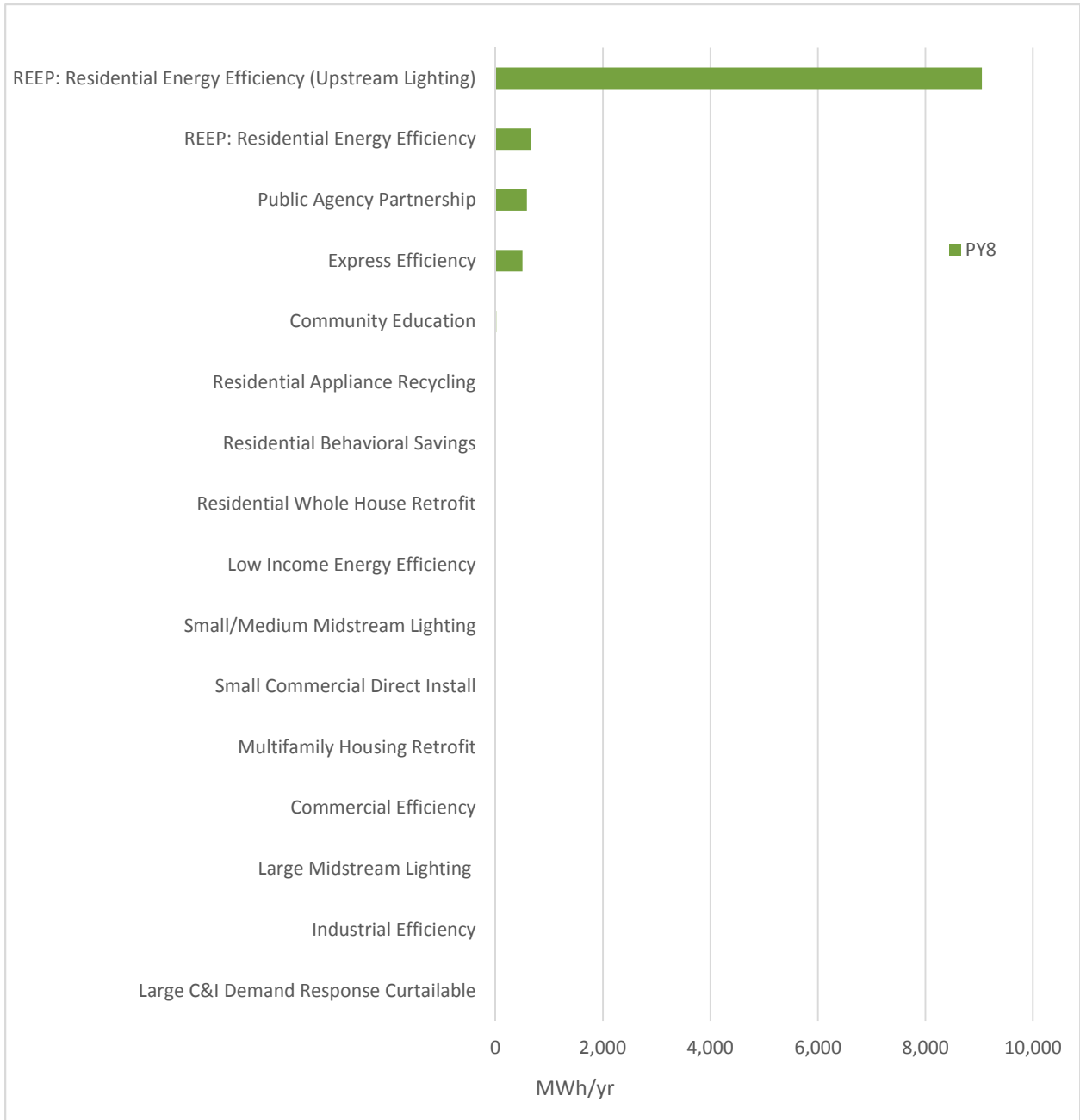


Figure 7 presents a summary of the PSA gross energy savings by program for Phase III of Act 129. PSA savings include verified gross savings from previous program years and the PYRTD savings from the current program year.

Figure 7: PSA Energy Savings by Program for Phase III



A summary of energy impacts by program through the current reporting period is presented in Table 5.

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

Program	PYRTD	RTD	VTD	PSA
REEP: Residential Energy Efficiency	666	666	0	666
REEP: Residential Energy Efficiency (Upstream Lighting)	9,049	9,049	0	9,049
Residential Appliance Recycling	0	0	0	0
Residential Behavioral Savings	0	0	0	0
Residential Whole House Retrofit	0	0	0	0
Low Income Energy Efficiency	0	0	0	0
Express Efficiency	505	505	0	505
Small/Medium Midstream Lighting	0	0	0	0
Small Commercial Direct Install	0	0	0	0
Multifamily Housing Retrofit	0	0	0	0
Commercial Efficiency	0	0	0	0
Large Midstream Lighting	0	0	0	0
Industrial Efficiency	0	0	0	0
Public Agency Partnership	586	586	0	586
Community Education	19	19	0	19
Large C&I Demand Response Curtailable	0	0	0	0
Portfolio Total	10,825	10,825	0	10,825

Section 6 Summary of Demand Impacts by Program

Peak demand reductions can be achieved in two primary ways. The first is through coincident reductions from energy efficiency measures and the second is through dedicated demand response offerings that exclusively target temporary demand reductions on peak days. Energy efficiency reductions coincident with system peak hours are reported and used in the calculation of benefits in the TRC Test, but do not contribute to Phase III peak demand reduction compliance goals. Phase III peak demand reduction targets are exclusive to demand response programs.

The two types of peak demand reduction savings are also treated differently for reporting purposes. Peak demand reductions from energy efficiency are generally additive across program years, meaning that the P3TD savings reflect the sum of the first-year savings in each program year. Conversely, demand response goals are based on average portfolio impacts across all events so cumulative DR performance is expressed as the *average* performance of each of the DR events called in Phase III to date. Because of these differences, demand impacts from energy efficiency and demand response are reported separately in the following sub-sections.

6.1 ENERGY EFFICIENCY

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. EDT on non-holiday weekdays from June to August. The peak demand impacts from energy efficiency in this report are presented at the meter level and do not reflect adjustments for transmission and distribution losses. Figure 8 presents a summary of the PYRTD reported gross peak demand savings by energy efficiency program for Program Year 8.

Figure 8: PYRTD Gross Demand Savings by Energy Efficiency Program

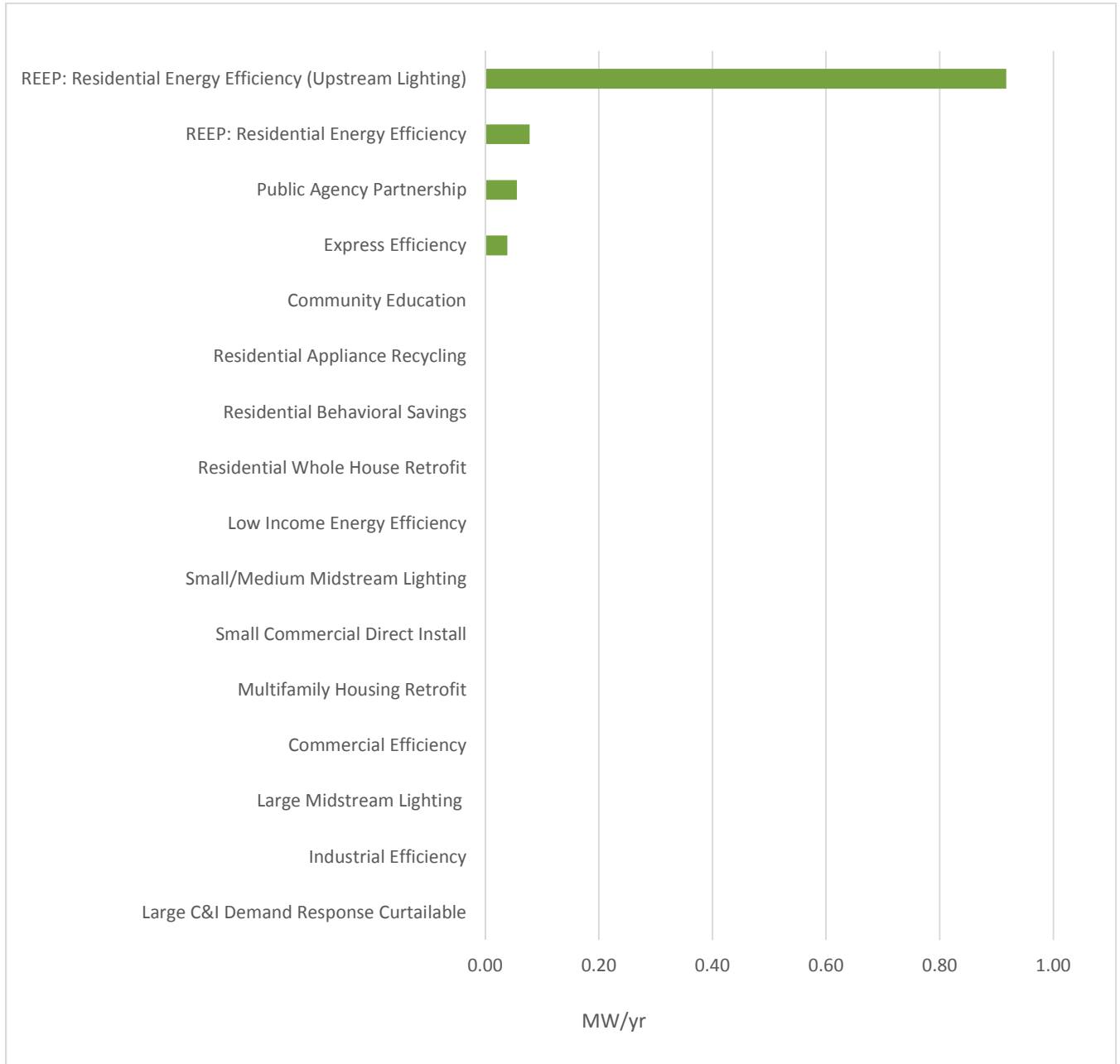
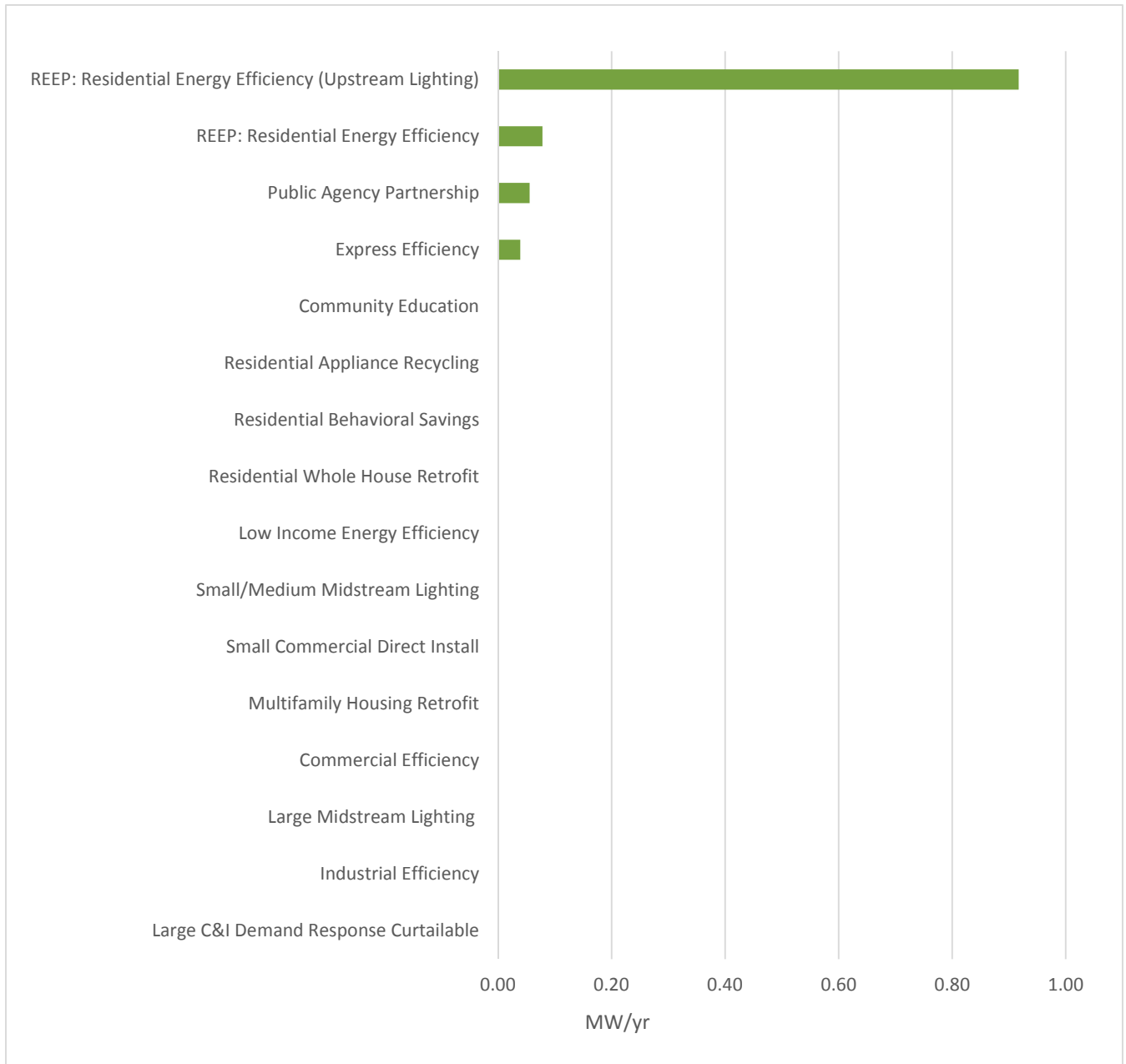


Figure 9 presents a summary of the PSA gross demand savings by energy efficiency program for Phase III of Act 129.

Figure 9: PSA Demand Savings by Energy Efficiency Program for Phase III



A summary of the peak demand impacts by energy efficiency program through the current reporting period are presented in Table 6.

Table 6: Peak Demand Savings by Program (MW/Year)

Program	PYRTD	RTD	VTD	PSA
REEP: Residential Energy Efficiency	0.08	0.08	0.00	0.08
REEP: Residential Energy Efficiency (Upstream Lighting)	0.92	0.92	0.00	0.92
Residential Appliance Recycling	0.00	0.00	0.00	0.00
Residential Behavioral Savings	0.00	0.00	0.00	0.00
Residential Whole House Retrofit	0.00	0.00	0.00	0.00
Low Income Energy Efficiency	0.00	0.00	0.00	0.00
Express Efficiency	0.04	0.04	0.00	0.04
Small/Medium Midstream Lighting	0.00	0.00	0.00	0.00
Small Commercial Direct Install	0.00	0.00	0.00	0.00
Multifamily Housing Retrofit	0.00	0.00	0.00	0.00
Commercial Efficiency	0.00	0.00	0.00	0.00
Large Midstream Lighting	0.00	0.00	0.00	0.00
Industrial Efficiency	0.00	0.00	0.00	0.00
Public Agency Partnership	0.06	0.06	0.00	0.06
Community Education	0.00	0.00	0.00	0.00
Large C&I Demand Response Curtailable	0.00	0.00	0.00	0.00
Portfolio Total	1.09	1.09	0.00	1.09

6.2 DEMAND RESPONSE

Act 129 defines peak demand savings from demand response as the average reduction in electric demand during the hours when a demand response event is initiated. Phase III DR events are initiated according to the following guidelines:

- 1) Curtailment events shall be limited to the months of June through September.
- 2) Curtailment events shall be called for the first six days of each program year (starting in PY9) in which the peak hour of PJM's day-ahead forecast for the PJM RTO is greater than 96% of the PJM RTO summer peak demand forecast for the months of June through September.
- 3) Each curtailment event shall last four hours.
- 4) Each curtailment event shall be called such that it will occur during the day's forecasted peak hour(s) above 96% of PJM's RTO summer peak demand forecast.
- 5) Once six curtailment events have been called in a program year, the peak demand reduction program shall be suspended for that program year.

The peak demand impacts from demand response in this report are presented at the system level and reflect adjustments to account for transmission and distribution losses. Duquesne Light uses the following line loss percentages/multipliers by sector:

- Residential = 1.074
- Small C&I = 1.074
- Large C&I = 1.074

No DR achievements are reported within this PY8 report. There are no DR achievements to-date for Phase III.

Section 7 Summary of Finances

Section 7 provides an overview of the expenditures associated with Duquesne Light's portfolio and the recovery of those costs from ratepayers.

7.1 PROGRAM FINANCIALS

Program-specific and portfolio total finances for PY8 are shown in Table 7. The columns in Table 7 and Table 8 are adapted from the 'Direct Program Cost' categories in the Commission's EE&V Plan template³ for Phase III. EDC Materials, Labor, and Administration includes costs associated with Duquesne Light's own employees. ICSP Materials, Labor, and Administration includes both the program implementation contractor costs and the costs of other outside vendors employed by Duquesne Light to support program delivery.

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

Program	Incentives to Participants and Trade Allies	EDC Materials, Labor, and Admin.	ICSP Materials, Labor, and Admin.	EM&V	Total Cost
REEP: Residential Energy Efficiency	\$536	\$21	\$1,382	\$0	\$1,939
Residential Appliance Recycling	\$0	\$12	\$18	\$0	\$30
Residential Behavioral Savings	\$0	\$13	\$27	\$0	\$40
Residential Whole House Retrofit	\$0	\$13	\$17	\$0	\$30
Low Income Energy Efficiency	\$0	\$13	\$175	\$0	\$188
Express Efficiency	\$0	\$11	\$165	\$0	\$176
Small/Medium Midstream Lighting	\$0	\$12	\$38	\$0	\$50
Small Commercial Direct Install	\$0	\$11	\$125	\$0	\$136
Multifamily Housing Retrofit	\$0	\$11	\$58	\$0	\$69
Commercial Efficiency	\$0	\$12	\$253	\$0	\$265
Large Midstream Lighting	\$0	\$12	\$92	\$0	\$104
Industrial Efficiency	\$0	\$12	\$260	\$0	\$272
Public Agency Partnership	\$0	\$11	\$271	\$0	\$282
Community Education	\$0	\$4	\$30	\$0	\$34
Large C&I Demand Response Curtailable	\$0	\$4	\$193	\$0	\$197
Common Portfolio Costs⁴					
Portfolio Total	\$536	\$172	\$3,105	\$0	\$3,813
SWE Costs⁵	N/A	N/A	N/A	N/A	250
Total	\$536	\$172	\$3,105	\$0	\$4,063

³ <http://www.puc.pa.gov/pcdocs/1372426.doc> Section 10

⁴ Common Portfolio Costs include costs associated with program tracking data management, support (legal, IT), and portfolio level marketing.

⁵ Statewide Evaluation costs are outside of the 2% spending cap

Program-specific and portfolio total finances since the inception of Phase III are shown in Table 8.

Table 8: Phase III to Date Financials (\$1,000)

Program	Incentives to Participants and Trade Allies	EDC Materials, Labor, and Admin.	ICSP Materials, Labor, and Admin.	EM&V	Total Cost
REEP: Residential Energy Efficiency	\$536	\$21	\$1,382	\$0	\$1,939
Residential Appliance Recycling	\$0	\$12	\$18	\$0	\$30
Residential Behavioral Savings	\$0	\$13	\$27	\$0	\$40
Residential Whole House Retrofit	\$0	\$13	\$17	\$0	\$30
Low Income Energy Efficiency	\$0	\$13	\$175	\$0	\$188
Express Efficiency	\$0	\$11	\$165	\$0	\$176
Small/Medium Midstream Lighting	\$0	\$12	\$38	\$0	\$50
Small Commercial Direct Install	\$0	\$11	\$125	\$0	\$136
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Commercial Efficiency	\$0	\$12	\$253	\$0	\$265
Large Midstream Lighting	\$0	\$12	\$92	\$0	\$104
Industrial Efficiency	\$0	\$12	\$260	\$0	\$272
Public Agency Partnership	\$0	\$11	\$271	\$0	\$282
Community Education	\$0	\$4	\$30	\$0	\$34
Large C&I Demand Response Curtailable	\$0	\$4	\$193	\$0	\$197
Common Portfolio Costs⁶					
Portfolio Total	\$536	\$172	\$3,105	\$0	\$3,813
SWE Costs⁷	N/A	N/A	N/A	N/A	250
Total	\$536	\$172	\$3,105	\$0	\$4,063

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 PY8 will be presented in the final annual report to the PA PUC on November 15, 2017, 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. Duquesne Light's cost-recovery charges organized separately by five customer

⁶ Common Portfolio Costs include costs associated with program tracking data management, support (legal, IT), and portfolio level marketing.

⁷ Statewide Evaluation costs are outside of the 2% spending cap

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 2.4. For example, the low-income customer segment is a subset of Duquesne Light’s residential tariff(s) and therefore not listed in Table 9.

Table 9: EE&C Plan Expenditures by Cost-Recovery Category⁸

Cost Recovery Sector	Rate Classes Included	PYRTD Spending (\$1,000)	P3TD Spending (\$1,000)
Residential	RS,RH,RA	\$2,294	\$2,294
Small/Medium Commercial	GS,GM, GMH	\$450	\$450
Small/Medium Industrial	GM, GMH	\$72	\$72
Large Commercial	GL, GLH, L	\$680	\$680
Large Industrial	GL, GLH, L, HVPS	\$567	\$567
Portfolio Total		\$4,063	\$4,063

⁸ Includes SWE costs